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The Romanian University of Cluj and the Academic Community from the United States of America (1919-1941): An Overview of Early Contacts

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Abstract: The Romanian University of Cluj made constant efforts to establish and consolidate a constantly expanding network of cooperation with similar institutions from Europe and even beyond the borders of the “old continent”. The long process of international affirmation began shortly after the Romanian University was organized in Cluj, at the end of the First World War. The tradition of “western education” among Romanian intellectuals facilitated the first institutional contacts with Western European Universities, especially from France and Germany. Such a tradition was missing in relation with the North-American academic community. Nevertheless, the first contacts with American higher education and research institutions were initiated during the interwar period.

In this article the impact of American universities will be analysed, as a model of institutional organization, during the early years of the Romanian University of Cluj. In the first decades of the 20th century American universities were perceived as an innovative model, different from the traditional rigidity of European universities, based on functionality and social involvement. In the second part of the article the focus will be on identifying the various means of academic cooperation and their influence on the teaching and research process in the University of Cluj: academic mobility, the access to American scientific literature, the exchange of publications between the University of Cluj and similar institutions in the U.S.A., conferences and other scientific events, the presence of professors from Cluj in American scientific societies, etc.

Keywords: international cooperation, academic mobility, Romanian University of Cluj, higher education, scientific research

The Influence of the American Higher Education System on the Romanian University of Cluj During the Interwar Period

In the early 20th century, American institutions of higher education were perceived, especially by their European counterparts, as having a distinctive character. Universities in the U.S.A. had established a tradition of balancing the teaching and research mission with a social mission. This specific character was already in development during the Colonial Era, and was determined by the strong link established between teaching institutions and the communities they were serving (Cohen & Kisker, 2010). Later, in the 19th and the beginning of the 20th centuries, technical disciplines became common in the curriculum of many American colleges and even in universities. Often research activities were linked to practical applications (Rüegg, 2004; Cohen & Kisker, 2010). Thus, American universities were described as having a functional, pragmatic and social oriented model of institutional organization. This was also the perception among some of the first professors of the Romanian University of Cluj during the interwar period (Breazu, 2019, p. 149).

Vasile Pârvan, one of the most influential founders of the Romanian University of Cluj, was among those who favoured the so called “Anglo-American” University model. He often expressed his belief that education and society were strongly interconnected, and proposed a project of organizing the new university in Cluj according to the college system in the United States of America (Pușcaș, 2003). This project was never implemented but it remains a testimony of the increasing popularity of American higher education among Romanian intellectuals.

Contacts between the two academic communities were encouraged by the consolidation of diplomatic relations between Romania and the United States of America. A significant moment in this process was the visit of Queen Mary of Romania in U.S.A. in the year 1926.

Several professors from the University of Cluj had direct contacts with scholars from American universities. Some of them travelled to the U.S.A. on various occasions and were able to obtain first-hand information about the higher education system in this country. Back in

Cluj they shared their experience with the entire academic community and sometimes with the larger public. Lectures and publications based on the professional experience gained during travels abroad were quite common during those days. Mihail Zolog, from the Faculty of Medicine in Cluj, was among those who enjoyed such a professional experience. He travelled to Boston, in the summer of 1925, as a fellow of the Rockefeller Foundation. There he studied hygiene at Harvard School of Public Health. He returned to Cluj after one year, very impressed with the teaching and research activity performed at Harvard. Practical activities and field experience are mentioned among the most innovative aspects of methodology in this institution of medical education. During his stay in the U.S.A., professor Zolog visited various locations in eight different states from the East Coast, as part of the teaching program. He describes in great detail the various courses he attended: sanitary engineering, demography, nutrition, etc. He was also very impressed with the social impact of American higher education and research in the field of hygiene, mentioning their efficient methods of water purification, the reduction of child mortality by 70% and the eradication of typhus epidemic (Zolog, 1927).

Petre Râmneanțu, a professor from the Institute of Hygiene and Preventive Medicine, was among those who made direct contact with the North-American academic community during the interwar period. When he returned home from his travels, he held a public lecture during a meeting of the Romanian-American Association from Transylvania, on the topic of American Universities. Professor Râmneanțu underlined the distinctive character of the American universities, which, in his opinion, excelled in “educating people with a strong sense of community.” Another interesting aspect, mentioned in his lecture, was the atmosphere of familiarity in student-professor relations, radically different from the rigidity that defines this relation in European universities. An important objective of American education was to form “good citizens”. This was also a very important issue for the American society, given that many students were immigrants or descendants of families who had recently moved to the United States of America (Râmneanțu, 1946).

On 21st October 1930, prof. Iuliu Hațieganu gave the ceremonial lecture at the beginning of the new academic year, on the topic of mental and physical hygiene for students. Prof. Hațieganu, at that time

Rector of the University of Cluj, underlined the importance of physical education as a factor of balance in the everyday life of students. To support his point of view, Hațieganu referred to American and British universities and their interest in ensuring an optimal physical condition for their students, and the exceptional results of these universities in various sports competitions: "Let us be inspired by the example of Anglo-American universities, which, at the beginning of every academic year, open their lecture halls, libraries, laboratories, but also their sport fields, everything that leads to perfecting the mind, cleansing the soul and strengthening the body." (AUC, 1930-1931).

Another particularity of the Anglo-American university model, which was encouraged at the University of Cluj, was the idea of providing psychological assistance for students. This type of assistance referred to: "... guidance for the organization of scientific and intellectual life, therapy and the hygiene of mental activities..." (AUC, 1935-1936). In 1936, the Rector of the university, Florian Ștefănescu-Goangă, together with Dimitrie Todoranu (Stan, 2018) and Mihail Zolog, wrote a volume entitled *Îndrumări Universitare* [Academic Guidelines] that dealt with several problems of student life: hygiene, physical education, professional orientation and techniques of intellectual work (*Îndrumări Universitare, 1936*).

The University of Cluj and the Rockefeller Foundation

The Rockefeller Foundation played an important role in establishing the first contacts between the Romanian University of Cluj and the academic community in the United States of America. At the end of the First World War, this foundation was actively involved in helping communities all over Europe, to overcome the negative effects of the war. They offered support mainly in improving the medical care system and the medical research.

At the end of the academic year 1922-1923, the University of Cluj was visited by Henry Eversole, a representative of the Rockefeller Foundation, from the Paris division. In the years following the Peace Conference in Paris, doctor Eversole travelled to Eastern Europe and visited several countries including Bulgaria, Turkey, Hungary and Romania (Schneider, 2002). In Cluj, doctor Eversole was impressed with

the progress made by the university in its few years of activity since its foundation. A small donation of 171 dollars was made during the same year. In 1924 a new donation of 250 dollars and a significant number of American journals were sent by the Rockefeller Foundation to the University of Cluj (AUC, 1922-1923).

In 1930, with the financial support of the Rockefeller Foundation, institutes of hygiene and public health were organized in Cluj, București and Iași. An institute of statistics was organized in the same year as well as the Caraiman Health Center in București (Râmneanțu, 1945, 18).

In the decades following the end of the First World War, most Romanians who studied in America received financial support from the Rockefeller Foundation (Nastasă, 2006). Grants and fellowships were also offered to scholars who chose to study in other European universities. Mihail Kernbach, who later became a professor of legal medicine at the University of Cluj, received a grant from the Rockefeller Foundation allowing him to study in Berlin, Halle, Graz, Lyon and Zürich (Maftai, 1992). George Sofronie, a professor of international law at the University of Cluj, studied in Geneva, London and Paris with the support of the same foundation (AUC, 1939, p. 39.)

The Network of International Cooperation of the University in Cluj (1919-1940)

International recognition was one of the most important missions assumed by the Romanian University of Cluj. The Inauguration Ceremony held at the beginning of February 1920 was a first symbolic display of the wide international support given to this new higher education institution. The Romanian Royal Family was accompanied to Cluj by representatives of several diplomatic missions in Romania and delegates from many foreign universities (over 60 European and American universities were represented or sent their greetings) (Stan, 2015, Crăciun, 1930-1933). The first foreign speaker was the Envoy Extraordinary and Minister Plenipotentiary of the United States of America, Charles Joseph Vopicka (Crăciun, 1930-1933, Breazu, 2019). It was a symbolic gesture meant to encourage the political and cultural ties between the two states.

During the interwar period, the contacts of Cluj with American universities were limited because of the intellectual tradition established among Romanian scholars, who favoured French and German universities, but also because of the geographic distance between Romania and the United States of America. This aspect is clearly revealed in an analysis made by Professor Petre Sergescu regarding the international relations of the University in Cluj, during the period 1926-1935. The well-known mathematician and science historian from Cluj identified 91 foreign professors and researchers who held lectures in Cluj during the above-mentioned period. More than half of them (47) represented French institution. The other 44 came from various European countries but also from the United States of America (8 – United Kingdom, 5 – Switzerland, 5 – Italy, 5 – Czech Republic, 5 – U.S.A., 3 – Poland, 3 – Spain, 3 – Belgium, 2 – Germany, 1 – Yugoslavia, 1 – Austria, 1 – Holland) (Sergescu, 1937). Arthur Andrews, professor at Harvard University, was one of the American intellectuals who visited the University Ferdinand I in the academic year 1930-1931. During his stay in Cluj he held three lectures: “Romania and the United States of America – a comparative study of the main trends in their history”, “The Foreign Policy of the United States of America” and “A Comparison between American and Romanian institutions” (AUC, 1930-1931).

An impressive network of international cooperation was established by a collective from the Faculty of Sciences in Cluj who edited the prestigious journal *Mathematica*. 111 scholars from all over the world wrote articles for the first 12 tomes of this journal. More than half of them were foreigners: 44 came from Romania, 26 from France, 20 from Poland, 4 from Belgium, 3 from the United States of America, 3 from Yugoslavia, 2 from Germany, 2 from Czech Republic, and one each from Bulgaria, Greece, India, 1 Italy, 1 Peru, and Russia (Sergescu, 1937).

The state of the international academic cooperation in Cluj is also reflected by the amount of foreign scientific literature that reached the libraries of the university. Between 1925 and 1935 a great number of foreign books and journals were obtained through interlibrary exchange programs: 18,203 volumes from France, 4,747 volumes from Germany, 748 volumes from Switzerland and 341 from the United States of America (Sergescu, 1937).

All these examples show that there were consistent relations, at an institutional level, between the University of Cluj and American universities, although they did not reach the level of influence exerted by French universities or other similar European institutions.

Transfer of Knowledge - Access to American Scientific Publications

An important way of building an international reputation, especially in the field of scientific research, was by gaining access to prestigious publications from famous universities and research institutions around the world. At the same time, scientific journals edited at the University of Cluj made constant efforts to establish collaborations with foreign scholars. In this regard, various Faculties and Institutes from Cluj made significant progress compared to their first years of activity.

At the end of the 1920, Romanian scholars from the Institute of the History of Medicine in Cluj were among the foreign correspondents of *Medical Life*, New York. Several members of the staff from the Psychiatry Clinic published the results of their research in *The Journal of Nervous and Mental Disease*, New York (AUC, 1929-1930).

In 1931, *Mathematica* was regularly exchanged with 42 foreign journals from all over the world, including several American publications: *Publications in Mathematics of the University of California*, Berkley; *Bulletin of the American Math. Society*, New York; *Mathematical Publication Providence*, Rhode Island; *Annals of Mathematics*, Princeton (AUC, 1930-1931).

Coriolan Petreanu, professor of Art History at the University of Cluj, published several articles on Transylvanian art and artistic educations in the prestigious American journal *Parnasus* (Sabău, 2010). His main contact across the Atlantic Ocean was a former colleague of his from the University of Vienna, the well-known American art historian John Shapely (1890-1978). Petreanu was also in correspondence with Alfred Salmony, professor of Oriental Art at Mills College, California (Sabău, 2010).

A remarkable network of cooperation was established by the scientific staff of the Botanical Garden and Botanical Museum of the University of Cluj. In 1922-1923, their journal was exchanged with

many similar publications all over the world, including some that were issued in the U.S.A.: Brooklyn Botanic Garden Record, Bulletin of the New York Botanical Garden, Annals of the Missouri Botanical Garden (St. Louis), etc. (AUC, 1922-1923). Cooperation with American botanical gardens was also a source of acquiring new plants for the Botanical Garden and Museum in Cluj. Thus, in 1929, 92 specimens were received from the Brooklyn Botanical Garden (AUC, 1929-1930). In the following years, such exchanges continued with other American institutions: Cambridge University (Massachusetts), Missouri Botanical Garden (St. Louis), Smithsonian Institute and Harvard University (AUC, 1930-1931) (AUC, 1934-1935).

Academic Mobility

Cooperation with North-American universities created excellent opportunities of professional development for professors from the University of Cluj. Direct contact with the American higher education system ensured access to some of the most recent methodologies in research and education that were transferred and adapted in the young Romanian University.

In addition to Mihail Zolog and Petre Râmneanțu, who were mentioned in the first part of this article, there were several other professors from Cluj who travelled to the U.S.A. in the decades between the two World Wars. Iuliu Moldovan, from the Faculty of Medicine in Cluj, travelled to the United States of America in 1930-1931. He visited many universities, observing the organization of hygiene and social hygiene institutes (AUC, 1930-1931). Ioan Nițescu, a professor of the Institute of Physiology of the University of Cluj, took part in the International Congress on Physiology, held in Boston, between 19th and 24th August 1929. His presentation was later published in the *American Journal of Physiology*. On his return to Cluj he held a two-hours lecture, sharing his scientific and cultural experience that took place across the Atlantic (AUC, 1929-1930). Virgil I. Bărbat, the founder of sociological research at the University of Cluj, travelled to the United States of America in order to extend his knowledge in this rather new field of research. One of his first monographs, based on his American

experience was: *Imperialismul American. Doctrina lui Monroe* [*American Imperialism. The Monroe Doctrine*]. Inspired by the social role assumed by American universities, Virgil Bărbat was among those who initiated the University Extension (*Extensiunea universitară*) as an efficient mean of disseminating scientific knowledge to the larger public. In 1931, he was elected member of the *Association of American Political Studies* (Pop, 2003, Breazu, 2019) (AUC, 1930-1931). Nicolae Mărgineanu received a Rockefeller fellowship for two years, 1932-1934. During his stay in the United States of America he attended lectures at several universities: Harvard, Yale, Colombia, Chicago and Duke. He was particularly interested in observing the new trends and methodologies in psychological research (Mărgineanu, 2002).

The examples mentioned above illustrate the various contexts of academic mobility towards the U.S.A. They also highlight the importance of academic mobility as a way of aligning to new trends in scientific research and education.

Student Mobility

During the interwar period, the mobility of Romanian undergraduate students was limited due to material obstacles and the lack of programs meant to encourage scholarly travel.

At the beginning of the academic year 1922-1923, a special commission of professors from Cluj was assembled with the purpose of choosing a Romanian student for a scholarship in the United States of America. This initiative came from the Ministry of Education. A student from the Faculty of Letters was chosen on this occasion but there are no other mentions about such commissions in the following years (Bud, 2017).

There were, however, students born in the United States of America who studied at the University of Cluj. Although we do not have a very detailed background for each of the students that fit this very particular group, it is safe to assume that most of them were descendants of Romanian families, from Transylvania, who migrated across the Atlantic Ocean during the previous century. This was the case for a Romanian student who graduated at the University of Cleveland, Ohio, and requested the recognition of his American diploma (Bud,

2017). In the academic year 1930-1931 there were five students born in the United States of America enrolled at the University of Cluj. Two were attending the Faculty of Law, one the Faculty of Medicine and the other two at the Faculty of Letters (AUC, 1930-1931). A few years later, their numbers increased considerably. The Faculty of Law had eleven students who were born in the U.S.A. during the academic year 1934-1935. In the same period, the Faculty of Sciences had seven American students while the Faculty of Medicine had three (AUC, 1934-1935).

The Romanian University of Cluj was not able to attract more foreign students during the interwar period because it was a young institution of higher education, and its international reputation was just beginning to grow. Nevertheless, the presence of Romanian students born in the United States of America was an encouraging sign, which was showing the willingness of Romanian immigrants to be educated in their native language.

Access to American Scientific Societies

Membership in prestigious international Scientific Societies was considered an important professional achievement. It was, at the same time, an efficient way of establishing connections between academic communities and institutions around the globe. The excellent results of professors and researchers from Cluj were being noted by many Scientific Societies from Europe, but also from the U.S.A. Among those who earned positions in American Scientific Societies there are: George Vâlsan (American Geographical Society) (AUC, 1922-1923), Ioan Popescu Voitești (American Association of Petroleum Geologists) (AUC, 1923-1924), Victor G. Cădere (American Geographical Society) (AUC, 1934-1935), Valeriu L. Bologa (American Association of the History of Medicine) (AUC, 1934-1935) and Gheorghe Spacu (American Chemical Society) (AUC, 1934-1935).

Conclusions

During its first decades of existence, the Romanian University of Cluj managed to establish lasting relations with the American academic

community. These relations were further developed in the following period in spite of political obstacles like World War II or the communist regime in Romania.

In the interwar period, contacts between the Romanian and the North-American academic communities were encouraged by a favourable political and diplomatic context. The initiatives of the Rockefeller Foundation were also very important in providing access to American education and to scientific research for Romanian scholars. At the University of Cluj, those who managed to establish the first contacts with American institutions were the members of the Faculty of Medicine, especially those from the Institute of Hygiene and Preventive Medicine, professors Iuliu Moldovan, Petre Râmneanțu and Mihail Zolog. In time, contacts were established in other fields of research like psychology, art history, sociology, law etc. The social role of American universities was also an inspiration for the academic community in Cluj.

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A Conceptual Modelling Study for a Learning Management System in Doctoral Schools

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Abstract: This research promotes the implementation of a specialised Learning Management System (LMS) for doctoral schools by identifying the required information, features, qualities, and actors and their specific roles. An extended literature assessment informs the structuring of information regarding the expected returned benefits; while the related findings are analysed using the graph and concept algebra. Five major components are identified as having a significant impact on the doctoral programme. One of them, namely *social behaviour*, poses a lack of connectivity with the rest of the identified components. The present research also looks at the expected impact created by the community of *social behaviour* as induced by the implementation of a specialised LMS for doctoral school. *Cooperation, collaboration* and *professional socialisation* enhance the overall effect of process improvement. *Compliance and conformity* is the main engine involved in strengthening the connectivity between LMS and *Cross-disciplinarity*. To study the proposed LMS structure, a conceptual design framework, along with a possible configuration, supply the proper description of how the LMS can be present within the doctoral school.

Keywords: science advance, doctoral programme, research management, community integration, knowledge representation

Introduction

Assessing the requirements of the Romanian Agency for Quality Assurance in Higher Education, one can note that the focus on scientific research is the primary objective of any doctoral programme (ARACIS, 2006). The institution has a long-term strategy and medium and short-term programmes which address the research objective, projects and expected outcomes, as well as the resources required. There is a research ethos and culture, and mechanisms for validating the research outcomes. (ARACIS, 2006: 30).

The specific implementation remains at the decision of the university and doctoral school (ARACIS, 2006). The long-term strategy and medium and short-term research programmes are adopted by the university Senate and the Councils of faculties, which also specify the practices for obtaining and allocating resources and the means for validating the research outcomes. The research interests are predominantly institutional. (ARACIS, 2006: 30).

The objective of this paper is to propose a possible configuration for a specialised Learning Management System (LMS) in doctoral schools which would increase the effectiveness of compliance with the Agency's requirements and the conformity of the scientific research outcomes.

Theoretical Background

We carried out a literature assessment in order to capture the significant aspects of a doctoral school, covering the interval between 2006 and 2018. The literature reveals the following meaningful domains: (i) education, (ii) science advance and (iii) community integration.

Keywords and Titles Selection

With the three domains of interests introduced by ARACIS (2006), i.e., education, science advance and community integration, a list of as-extracted keywords has been adopted.

Table 1 Keyword set used for title selection	
Keyword	Keyword
Educational grant	Advancing knowledge
Scientific dishonesty	Intellectual discovery
Student trust	Advanced research methods
Career development	Cross-disciplinarity
Research article	Core scientist
Independent study & practicum	Scientific consultant
On-site course	Professional practice expert
Online course	Strategic case actor
Science diversity	Local case actor
LMS	Social behaviour
External evaluator	Professional socialisation
Collaboration	Compliance and conformity
Cooperation	Liminality
Mentoring	
Counselling	
Peer-networking	
Bridge-tie concept	
<i>Legend: the community identification is underlined.</i>	

For exemplification, the domain of science advance generates in the first line the keywords of *advancing knowledge*, *intellectual discovery*, *advanced research method* and *cross-disciplinarity*. With the resulting keywords, a set of titles connecting the selected keywords is retained. Overall, a list of 41 keywords is created. Those specific keywords not developing any relation type (see The Knowledge Base for details) were removed from the list, such that, finally, 27 of them were considered (*Table 1*). Based on the selected keywords, the titles which (i) supply the keyword definition, or (ii) introduce (binary) relation to other keywords, were chosen for the literature assessment resulting in a reference list with twenty-one entries to construct the knowledge base.

The Knowledge Base

The selected method for knowledge representation (Keet, 2008; Wang, 2017) follows a general structure of nodes and edges (*Figure 1*) and relies here on the relation expressed by Equation (1):

$$G(Kn) = \{Kw(In), R, Kw(Out)\} \quad (1)$$

The entity of Relation, covers domains of mereology, meronymy, causality, participation and quality association.

The modularity of $G(Kn)$ shows certain classes (communities) (Fortunato, 2010) as further detailed below.

Educational Grant

The *Educational grant* represents an important sector for the domain of any doctoral school (Kim et al., 2009; Muhar et al., 2013; ARACIS, 2006; EHEA, 2017). Doctoral programmes focus on the advancement of knowledge through original research (Muhar et al., 2013; EHEA, 2017). The doctoral programme strives to solve complex sustainability problems in both academic and non-academic settings (Muhar et al., 2013).

Specific components define the *Educational grant*: *career development* (Kim et al., 2009; Heflinger & Doykos, 2016), *independent research* and *practicum* (Kim et al., 2009; Hellweg et al., 2011), *research articles* (Kim et al., 2009; Prasad, 2015) and *student trust* (Muhar et al., 2013; Hellweg et al., 2011; Prasad, 2015). It means that *career development* comes mainly through *research*, while *independent study* and *practicum* are the main engines in attaining the goal. However, the entities of *student trust* and *career development* get causality from *scientific dishonesty* (Heflinger & Doykos, 2016; Hellweg et al., 2011; Hofmann et al., 2013). The *educational grant* also gets causality from the entities of the *on-site course* and *online course* (Kim et al., 2009).

Science Diversity

Science diversity (Kim et al., 2009; Muhar et al., 2013) enjoys particular importance in the scope of this research work. It is a bipolar community, with both entities of *science diversity* and (*Learning*) *Management System* showing only in-degree centrality. It is interesting to observe that this community has no direct causality with the rest of communities, but through the entities of the *external evaluator* (Kim et al., 2009; Muhar et al., 2013), *cooperation* (Hellweg et al., 2011) and *collaboration* (Enengel et al., 2012).

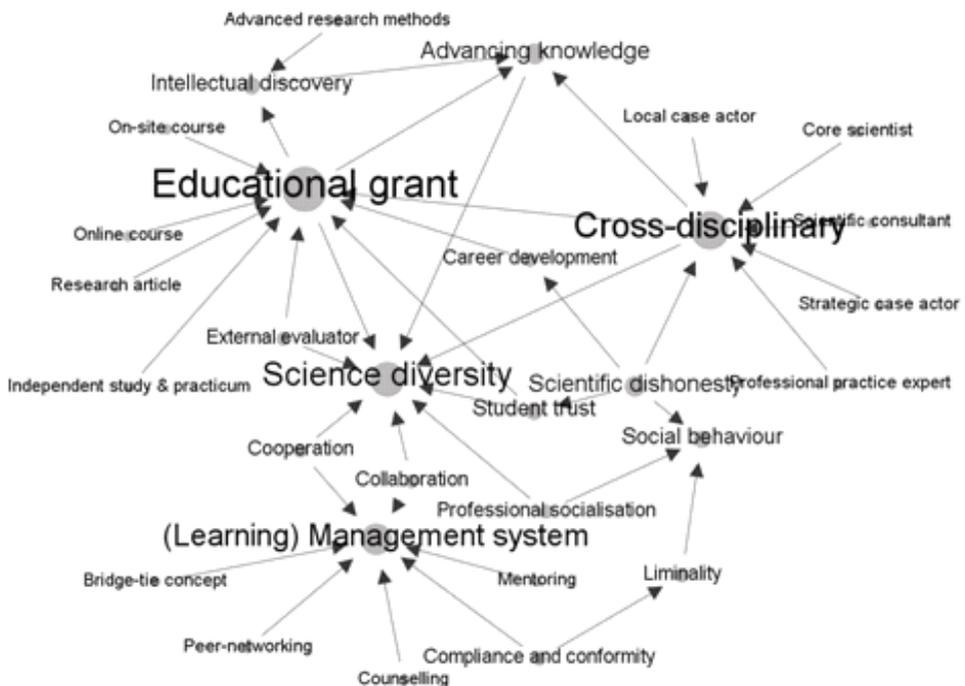


Figure 1 The Knowledge Base

Complementarity is the central principle to engage the inter- and trans-disciplinary research (Muhar et al., 2013; Enengel et al., 2012), but today the main character of a PhD programme shows a lack of being connected with other programmes (Muhar et al., 2013; Nyhagen & Baschung, 2013). The main directions of action enlist the following: a strive for a shared understanding of the critical principles, an increase in knowledge and socio-cultural background heterogeneity, stimulating

the research work to use a robust collective manner (Muhar et al., 2013; Nyhagen & Baschung, 2013; Iliescu et al., 2018).

The entity of (*Learning*) *Management System* (Kim et al., 2009) is closely connected to *science diversity*. It controls those processes resulting in *science diversity*. The main engine involved in this is the concept of being *collaborative* (Enengel et al., 2012; Iliescu et al., 2018; Iliescu, 2017).

The entity of the (*Learning*) *Management System* should be self-explanatory. Mainly, it reflects the role of a management system in the function of a university and its affiliated doctoral school(s). However, since several perspectives are potentially equally adopted (see ISO/FDIS 19349) regarding these organisations within the *Management System*, the specialisation of *Learning* was added into the keyword title. Therefore, within this research, the management system is approached with a focus on learning dimension only.

Cross-disciplinarity and Social Behaviour

Cross-disciplinarity (Muhar et al., 2103; Hellweg et al., 2011; Enengel et al., 2012) connects the research activity with the doctoral programme. The term of *complexity* is decoded here as the *complexity of interactions* (Hellweg et al., 2011).

Actors and their interactions become an integral part of the doctoral programme (Enengel et al., 2012). The declared objective of *cross-disciplinarity* is to induce an innovative and creative environment to foster the opening of new scientific perspectives (Muhar et al., 2013).

The *social behaviour* community has a level of importance that comes from the literature as a general topic for education (Kim et al., 2009). Considering the communities of *educational grant* and *cross-disciplinarity*, no direct connection with *social behaviour* exists.

Notable connections are those with *scientific dishonesty* (Hofmann et al., 2013; Bageac et al., 2011; Baxter & Jack, 2008) and *professional socialisation* (Kim et al., 2009; Muhar et al., 2013; Prasad, 2015). Also, *liminality* creates a significant impact on the psychological and sociological scale.

Research Methodology

As introduced in the *Theoretical Background* section, similar projects were investigated and based on the extracted information, the *Knowledge Base* being, therefore, formed. The domains of interests in these projects are described in *Table 1*. It is to be noted that these projects represent individual developments ending in a lack of connectivity (see *Science Diversity*).

This research studies the effect created by the implementation of a specialised LMS, creating an integrated framework for the target doctoral programme. The corresponding simulation environment is presented in *Figure 2*.

Research Question 1: The community of *social behaviour* does not provide bridge-ties with the rest of the communities under study. Can a specific LMS implementation induce/promote such a tie for *social behaviour*?

Research Question 2: What is a possible configuration for LMS that would foster the communication bridge between communities defined for the doctoral programme in respect to network theory?

The knowledge base is constructed and analysed by using graph theory. In this direction, Gephi 0.9.2 software is used in order to generate the characteristics of the graph, as well as in obtaining the graphical representation for the knowledge base and simulation environment. Considering their relevance for this study, the following graph characteristics come under consideration (i) degree, (ii) betweenness, (iii) authority and (iv) hub. Specific graph characteristics' flavour as in-degree, out-degree, among others, were also of interest.

Enhancing the Connectivity

The community of *social behaviour* seems unconnected with the communities reported by the graph analytics and network theory. However, *social behaviour* seems to be on the same level of importance (based on degree centrality criteria) with the entities of *intellectual discovery* and *student trust*.

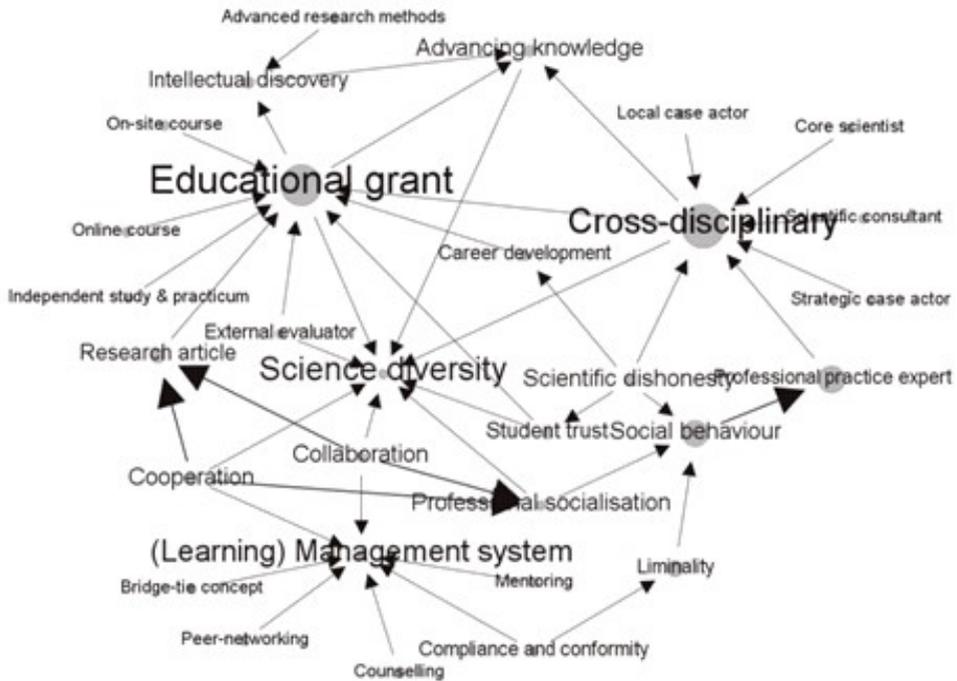


Figure 2 Simulation environment

The results based on *betweenness* show that *social behaviour* has no impact on the domain due to the lack of bridge-ties with the rest of the communities. Results of *authority* and *hub criteria* (graph theory concepts) reveal an interesting fact. *Authority* of this entity is present; there is an outcome of information load on this entity coming from *scientific dishonesty*, *professional socialisation* and *liminality*. However, the hub is null, indicating a possible blockage of information regarding the entity of *social behaviour*.

Collaboration and *cooperation* are the primary engines considered for simulation environment in the *research article* and *professional socialisation*. The *per se* hypothesis is raised here regarding *social behaviour* and *professional practice expert* – the *expert* term exists in a social context. Therefore, *professional practice expert* poses specific *social behaviour* as a feature (Figure 2). The declared goal of this relation is to simulate a chain bridge from *social behaviour* to *cross-disciplinarity* and tests the expected effect. One can observe that the communities across the graph form a new structure. Indeed, *social behaviour* is now connected with *cross-disciplinarity* by both *scientific*

dishonesty and *professional practice expert*. Therefore, *professional practice expert* comes in contra-balance with the *scientific dishonesty*, as all these entities are now part of the same community. By consequence, it is the role of the LMS to foster the contribution of the *professional practice expert* within the doctoral programme and the simulation environment in *Figure 2* expresses this concept.

Conceptual Modelling – The Learning Management System

The *complexity* of the problem described results from the literature assessment, accounting not only for the expected level given by the management processes but with the embedded social dimension as well.

The *research centre* is a generalisation for *professional socialisation, education, library* and *researcher*, and it represents an implementation of LMS (*Figure 3*).

The research herein is motivated by the effect created by the lack of connectivity of *social behaviour*. In this light, the granted users within the LMS (named here *research centre*) require a particular control, including for *professional socialisation, cross-disciplinarity* and *cyber-security*.

There is a specific granularity to record in connection to *research groups*. Considering the *research team* as being the underlying structure in research activity, one or more *research teams* are part of one or more *research groups*.

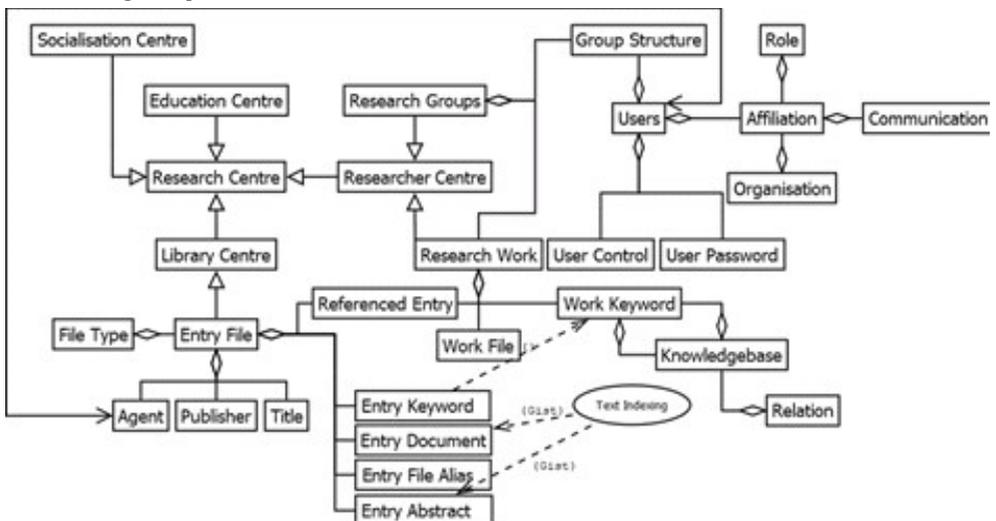


Figure 3 LMS structure

This many-to-many structure poses a high complexity in research activity management. By consequence, the embedded actions of *cooperation* and *collaboration* should support a much more complex relationship, and the *research centre* should adequately reflect the described complex structure.

The solving method consists of two entities named *research groups* and *group structure* (Figure 3). The keyword of *research groups* represents a reflexive, anti-symmetric and non-transitive construction, enabling a complex structure definition in the defined context. The *group structure* materialises the association between authenticated users and one or more teams. A specified user, along with a determined affiliation (affiliation is a tuple of {Organisation, Role}, Figure 3) can be a member of one or many of the *research teams* or *groups*. Obtaining success is, therefore, a perdurant entity of type *process*, and the proposed LMS intends to control the management of such a complex process. The proposed structure is also able to support an early verification of *scientific dishonesty*.

The Knowledge Base, Cooperation, Collaboration and Awareness

The process of research starts with a literature assessment. The extracted keywords entity is a tuple of {Keyword, Definition, Reference}. The extracted relations follow the structure in *Equation (1)*. The tuple of {extracted keyword, extracted relations} forms the knowledge base.

Regarding the source of information, the proposed LMS should preserve the ownership of reviewed references. One specialisation over the managed information needs to be present in this framework to control the dishonesty that may occur, even without awareness of the implied actors.

The topic of *cooperation and collaboration* represents a central concern for a doctoral programme. However, the literature shows that the participants' awareness usually is seen as a challenge for the doctoral programme, e.g., the domain of *scientific dishonesty*. The problem arising here is how to increase awareness and preserve the authorship credentials over the research outcomes. Even more, awareness overpasses the *research team* boundaries.

The doctoral school members should be able to access the required information regarding different actors and their research outcomes with impact on the domain of *cross-disciplinarity*.

Building the Knowledge Base

The process of research starts with a literature assessment for the selected domains of interests. Two categories of entities account for knowledge formation in this stage. The extracted keywords represent the first category. This entity is a tuple of {Keyword, Definition, Reference}. The specific extracted relations represent the second category. The two classes here, seen in aggregation, form the knowledge base.

The keywords extraction counts on the assessed literature. Regarding the source of information, the proposed LMS should preserve the ownership of reviewed references. One specialisation over the managed information needs to be present in this framework to control the dishonesty that may occur, even without the awareness of the implied actors. A specific taxonomy follows to control the granting procedure against the recorded references.

The difference highlighted in *Table 2* between keywords (as published) and keywords (as extracted) is essential, and we should be aware of it. The first term represents an indexing term as proposed by authors and used by publishers; the second represents the extracted terms proposed by researchers as a conceptual representation of knowledge. With the second one, specific operations would be considered to define the term of the *knowledge base*.

Table 2 Public versus Non-Public Information

Information type	Create and Update Grant to	Read (Download) Grant to
Title, Authors, Publisher, Year	Non-transitive over the entry file record owner	Public
Abstract	Non-transitive over the entry file record owner	Public
Keywords (as published)	Non-transitive over the entry file record owner	Public
Extracted keywords (for	Transitive over the	Public

ongoing research activity)	research team group	
Extracted relationship (of continuing research activity)	Transitive over the research team group	Public
Entry file	Non-transitive over the entry file record owner	Transitive over the research team group
Gist (meaning), themes (concepts) and tokens (used words)	Non-transitive over the entry file record owner	Public

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Confronting the Challenges of the Quality Assurance Process in Private Higher Education: The Ghanaian Experience

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Abstract: Quality assurance agencies in Sub-Saharan Anglophone Africa were established in the 1990s to ensure quality in higher education delivery by institutions providing access to qualified post-secondary students. Their establishment was also to ensure standardization among private higher education institutions. However, the implementation of this trajectory at country level has had its challenges. Using the theoretical framework of legitimacy, this qualitative study explores the challenges of the quality assurance process in Ghana and their implications for policy. Open-ended interviews were held with sixteen participants consisting of higher education specialists, administrators of private higher education institutions, retired faculty members of public higher education institutions and officials of the National Accreditation Board (NAB). Findings showed evidence of challenges of the quality assurance process such as conflicting requirements from the NAB and mentor institutions, duplication of activities, the perception that public higher education institutions were favoured over private ones, non-compliance of institutions to the time-frame given for programme and institutional accreditation and lack of regular communication about an institution's charter request. The study has noteworthy implications for developing further policies that will guide the accreditation process of private higher education institutions in Ghana and other Sub-Saharan African countries having comparable quality assurance challenges.

Keywords: quality assurance, private higher education, Ghana, legitimacy, National Accreditation Board.

Introduction

Enrollment in the higher education sector in Sub-Saharan Africa (SSA), increased exponentially in the 1990s as a result of population growth that impacted enrollment at the pre-tertiary level. From 1990 to 2012, the number of children enrolled in primary school in SSA almost tripled from 62 million to 149 million children (AAI, 2015). These population increases at the pre-tertiary level invariably impacted the subsequent access to higher education. Pressure was therefore placed on resources at the public higher education institutions in SSA in their ability to provide quality environments for learning (Atteh, 1996; Sawyerr, 2004).

Various Sub-Saharan African governments in this category could not shoulder the financial burden of providing highly subsidized higher education to all qualified post-secondary applicants (Atteh, 1996). The reasons for their inabilities included economic downturn of the 1980s that impacted most Sub-Saharan African countries' ability as higher education is considered as being much more capital intensive than primary education and requires ten times more of what is spent on secondary education (Assie-Lumumba, 2006). These factors triggered the growth of private providers of higher education and the subsequent establishment of quality assurance agencies by Anglophone SSA governments to enable regulation.

Further the establishment of quality assurance agencies was based on the notion that, unlike the public higher education institutions, the private sector did not already have the internal quality assurance mechanisms in place and may not abide by the required regulations. However, the establishment of quality assurance agencies in SSA have had challenges associated with the enforcement of regulations both at the level of accreditor as well as the institution seeking accreditation.

As a precursor to the challenge of providing access to higher education to the growing population in Sub-Saharan Africa (SSA) generally and Ghana in particular, funding decreased in absolute terms in the 1980s. Many Sub-Saharan African countries implemented the Structural Adjustment Program, Ghana included, to address among others the challenges of providing access to higher education. Part of the Structural Adjustment Program (SAP) conditions implemented in Ghana included currency devaluation and a focus on primary and

secondary education, at the expense of higher education (Assie-Lumumba, 2004; Teferra & Altbach, 2004). This was based on the notion that the rates of return for primary and secondary education were greater than returns to higher education (Psacharopoulos, 1985). The implementation of this policy impacted the ability of government to provide increased infrastructural facilities for its higher education institutions as primary school enrollments had grown by more than 50 percent (Atteh, 1996). Subsequently, there was an excess demand over supply in the provision of postsecondary education, be it at the level of the university, professional or training institutes. Ghana's higher education enrollment in 2008 was 6.2%, while SSA had a 6% growth rate. Globally, higher education enrollment stood at an average of 26%. When the global average is compared to that of Ghana, a great disparity is noted (AAI, 2015).

It is noteworthy to indicate that the SAP was engineered by the World Bank and the International Monetary Fund and it emphasized the privatization of public services, higher education included (Konadu-Agyemang, 2000; Mabizela, 2007; Sawyerr, 2004). The SAP prescription had its disadvantages since the implementing country's context was not taken into consideration.

Consequently, the deteriorating conditions in Ghana's higher education sector led to a major policy reformulation from 1986 to 1988 instituted by the University Rationalization Committee (URC). The URC proposed policies aimed at cost-sharing strategies, income-generating activities and cost reduction measures at the post-secondary level of education (Girdwood, 1999). To provide access to the growing secondary school graduates, the URC recommended that private higher education institutions (PHEIs) be allowed to operate and also regulated. A further recommendation was the establishment of the National Accreditation Board through the enactment of the PNDC Law 317, to accredit both public and private higher education institutions. A major objective of the accreditation board is to ensure quality (Effah, 2003; Girdwood, 1999; Levy, 2006; Okebukola, 2002). Subsequently, in 1993, the NAB was established to regulate both private and public institutions as well as their programmes.

The establishment of a quality assurance agency became necessary based on the notion that unlike the public higher education institutions, the private sector did not have the internal quality assurance

mechanisms in place and may not follow the required rules and norms. Mabizela (2007, p.5) indicates that regulation “has largely been a reaction to the surge of private institutions due to the increasing demand for access to higher education”.

Another salient factor that influenced the establishment of a quality assurance agency in Ghana is the recognition that higher education has a significant role to play in the development of a nation’s human capital thus fostering economic development (Materu, 2007). Quality human capital has been linked to the economic development of a nation, thus a valid and comprehensive quality assurance agency sets the stage for its production.

Since the establishment of a national quality assurance agency in Ghana, minimal research has explored or investigated challenges encountered both by the accreditor as well as the institution seeking accreditation (Manyaga, 2008; Okebukola, 2003; Shabani, 2013) in SSA generally and Ghana in particular. Thus, there is a dearth of studies focused on challenges of the quality assurance process by the accrediting agency as well as the institution seeking accreditation. This study seeks to bridge that gap by examining challenges of the quality assurance process as encountered by the accreditor as well as the institution seeking accreditation by using Ghana as a case. The overarching question that this study attempts to address is: (1) “What are the challenges that encumber private higher education institutions during the quality assurance process?”

This study might be of relevance to developing countries in SSA having similar or comparable quality assurance challenges. It can also form the basis of further exploratory study on quality assurance in Anglophone countries in SSA given that their colonial histories are intertwined (Sawyer, 2004). This study may also generate knowledge for policymakers, stakeholders and development partners involved in higher education in SSA on how to minimize or eliminate the challenges of the quality assurance process in Ghana. The outcome of this study will also aid in the identification of the need for capacity enhancement and quality improvement among providers of private higher education. It is assumed that lessons learned from this research may also be enlightening for other developing countries having similar challenges in the accreditation of PHEIs.

The subsequent sections of this paper consist of a review of studies on quality assurance challenges, the concept of legitimacy in the context of quality assurance, followed by methodology, findings, discussion and conclusion.

Review of Literature

To frame this current study, a number of important concepts are noted in the literature review. First, there will be an overview of quality assurance in higher education, followed by research on challenges associated with the quality assurance process especially in SSA. This section will also examine the concept of legitimacy as applicable to quality assurance, and constitute the study's theoretical framework.

Quality assurance in higher education is defined as “a planned and systematic review process of an institution or programme to determine whether or not acceptable standards of education, scholarship, and infrastructure are being met, maintained and enhanced” (Materu, 2007, p.3). It is also considered as licensing and accreditation prerequisites that an educational institution has to undergo (Levy, 2007). Invariably, higher education institutions that do not undergo this review process are not accorded the necessary recognition.

The term ‘accreditation’ is sometimes used interchangeably with ‘quality assurance.’ However, quality assurance is assumed to have a broader framework and is defined by Gaither (1998, p.3) as

“(...) the policies, attitudes, actions and procedures necessary to ensure that the quality of education and scholarship (including research) is being maintained and enhanced (...) . It requires actions internal to the institution, but may also involve actions of an external body or bodies”.

The definitions above indicate quality control mechanisms that higher education institutions need to put in place to qualify them to be accepted as legitimate.

Fielden and Varghese (2009) indicate the primary need for regulation in private higher education to be protection of the consumer, especially the first generation student, who may not have any social network to draw upon to determine which higher education institution

is legitimate. Quality assurance is also required to foster accountability to government, students, employers, professions and colleagues.

Research indicates that higher education institutions must have certain minimal requirements in order to qualify for either institutional or programme accreditation (Association of African Universities, 2007; Alderman & Brown, 2005; Effah, 2003; Manyaga, 2008; Okebukola, 2002). These requirements include a self-study document prepared by the institution followed by panel visits from the quality assurance organization. Recommendations made by the accrediting institution are benchmarked against its standards.

The growth in private providers of higher education in SSA generally, and in Ghana particularly, has had its accompanying challenges. Research on challenges of the quality assurance process is minimal generally in SSA and particularly in Ghana thus necessitating this case study.

The Association of African Universities (2007) reiterates that private providers of higher education became involved in many Sub-Saharan African countries when national governments were not able to absorb the increasing demands for access to higher education institutions and its consequent regulation.

Research indicates quality assurance processes that higher education institutions in developing countries undergo as being fraught with several challenges. For the institution seeking accreditation, challenges include inadequate funding to support the preparatory phase of the accreditation process, non-compliance with basic standards, insufficient human resource, limited capacity building and minimal participation of administrative staff (Manyaga, 2008; Okebukola, 2002). According to Giesecke (2006: 13) the common claims about PHEIs include the belief that its students are

“thought to be inferior in preparation and performance; instructional programmes are often considered weak and too focused on the marketplace; library and laboratory resources are virtually non-existent; the vast majority of faculty members (...) do not engage in scholarly research in their fields of inquiry.”

On the part of the accrediting body, challenges of developing countries include inadequate staff to provide long-term guidance to higher education institutions and assist them qualify for accreditation. Other challenges include the inability of the accrediting agency to

effectively monitor the already accredited institutions as well as the unapproved ones that continue to offer academic programmes to the public (Manyaga, 2008; Okebukola, 2002). Shabani (2013: 2), notes that even though over sixty percent of the quality assurance agencies in SSA were established in the last decade, most of them “still lack the capacity needed to implement their mandates effectively.”

Globalization presents a challenge to quality assurance agencies in developing countries since some of them are not adequately resourced and thus do not have the capacity to deal with institutions crossing borders and establishing branch campuses (Blackmur, 2007; AAU, 2007). Blackmur (2007) examined issues in higher education quality assurance and noted accreditation of institutions crossing borders to another country as a challenge especially for developing countries. This is because some host nations may have minimal or no accreditation regulations guiding countries exporting academic programmes to a receiving country.

Moreover, quality assurance agencies in Sub-Saharan African countries require salient resources to enable them to assiduously accredit higher education institutions providing distance education effectively. This is because distance education presents varied challenges for the quality assurance agencies in SSA. Some of them include the maintenance of standards in distance learning and ensuring adequacy of resources (Harris & Gibson, 2006). The quality of a distance education programme is also at stake if profit becomes the main motivating factor (Maritim, 2009).

Research further indicates that in both developing and developed countries, it is not clear whom the accrediting body is accountable towards. However, there have been instances where accreditation issues have been taken to the courts to be resolved. There is also the challenge of the accreditation process being subject to manipulation and abuse as there is no watchdog guiding the accrediting agency (Alderman & Brown, 2005; Blackmur, 2007).

Quality assurance agencies act as regulators and confer legitimacy to higher education institutions that assures and convinces the consumer. Suspitsin and Suspitsyna (2007) studied the strategies employed by Russian private higher education organizations to maintain legitimacy with state actors. Their qualitative study was based on interviews and document analysis. The outcome of the study

indicated that higher education institutions in Russia employed the themes of conformity and manipulation among others to maintain their legitimacy. On the other hand, accredited institutions easily attracted and retained students than non-accredited institutions, suggesting the benefit of obtaining accreditation. Importantly, Kinser (2007: 272) also indicates that “private higher education often relies on accreditation or recognition from a public entity in order to grant degrees”.

Wilkins and Jeroen (2012) explored how ranking trends explained the historical development of higher education. The study indicated that apart from rankings, considered as normative framework, higher education institutions employed the regulative framework (accreditation). Moreover, there were links between the rankings and accreditation as students were most likely to attend the ones that are externally accredited. Giesecke (2006) explored the benefits of accreditation by a quality assurance agency of new PHEIs in Central and Eastern Europe (Poland and Hungary). In Poland the number of students enrolled in a higher education institution indicates legitimacy. Thus high student enrollment indicates that it is a legitimate place for students to pursue an academic education. In Hungary, a private higher education institution is accepted as legitimate if it is accredited by a state quality assurance agency. This study affirmed the concept of legitimacy as conferred by a quality assurance agency and did not explore other constructs such as challenges that the institutions encounter. Giesecke’s (2006) study is indicative of the value of accreditation as a regulatory framework, and also suggests that accreditation may be important in some instances and in others it may not be that essential.

By application, research suggests that PHEIs of any kind have to comply with quality assurance regulations of the National Accreditation Board of Ghana in order to be considered legitimate by the state and the society.

Research reviewed indicates that there are no studies that particularly examine the challenges of the quality assurance process in a developing country like Ghana. This qualitative study aims to fill this gap by exploring the challenges of the quality assurance process instituted by Ghana’s National Accreditation Board through the application of the legitimacy framework.

Theoretical Framework

Legitimacy is of utmost importance to any higher educational institution that wants to be recognized. According to Scott (1987), organizations are influenced by their locational environment through conformity or manipulation. Therefore, the environment plays a significant role in the formulation of the objectives of an institution. Conformity is exhibited for example, when a higher education institution abides by regulations established by the quality assurance agency such as having the requisite qualified staff, physical and human resources and the establishment of an internal system of evaluation. Including these earlier enumerated factors set the tone that provides for quality higher education. This study focuses on the concept of legitimacy as its theoretical framework.

Suchman (1995: 574) defines legitimacy as: “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.” In this definition, Suchman emphasizes that a characteristic of legitimacy is to enable an organization to achieve its goals. Invariably, the ultimate objective that propels the quality assurance processes that PHEIs undergo is the achievement of legitimacy that are impacted by challenges. Scott (2008) asserts that organizations have to conform to the rules and belief systems dominant in the environment in order to attain legitimacy. He suggests that the institutional life of a higher education institution may consist of competitors, students and regulatory agencies.

Research also indicates that the emergence of PHEIs in most countries, SSA included, was a ‘surprise’ and was started in an atmosphere of ‘delayed state regulation’ (Levy, 2006; Slancheva & Levy, 2007). Subsequently, countries enacted regulations, after the moment of ‘surprise’ to regulate and legitimize the quality of PHEIs through various modalities such as accreditation.

Furthermore, Rusch and Wibur (2007: 98) consider higher education accreditation as being the procedures that institutions undergo to achieve legitimacy through “highly scripted procedures”. They further indicate that accreditation enables a higher education institution to attain status while emulating a varied set of standards and values. Quality assurance procedures could therefore be interpreted as

scripted processes that institutions have to undergo to obtain recognition. The review process is a periodic event that either reaffirms the status of a higher education institution or enables it to attain legitimacy. DiMaggio and Powell (1991) suggest that institutions must conform to 'scripts' in order to obtain legitimacy.

The challenges to legitimacy include "lack of tradition, social standing, established support, and secure sustenance" (Slancheva & Levy, 2007: 6). However, through accreditation, PHEIs are able to attain legitimacy once they pass the state requirements. Legitimacy is of utmost importance to any higher education institution that wants to be recognized. Salanick and Pfeffer (1978: 194) describes legitimacy as being more readily noticed when it "is absent than when it is present."

The processes that a higher education institution undergoes in the legitimization process will be dictated by whether it wants to maintain, gain or repair legitimacy (Suchman, 1995). However, to gain legitimacy, higher education institutions must become isomorphic and have certain identifiable 'characteristics' that can be accorded the requisite recognition (Meyer & Rowan, 1977). The legitimacy concept from Suchman's (1995) perspective provides the theoretical framework for this study as it attempts to make sense of the challenges confronting the quality assurance process.

Methodology

The methodology employed in this research is the case study, which is used to explore in-depth the associated legitimacy challenges arising from the growth of private providers of higher education, (Ishengoma, 2007; Mabizela, 2007; Otieno, 2007; and Sawyerr, 2004). The analysis of the Ghanaian case will assist in addressing the phenomenon of legitimacy challenges in the larger framework of SSA. Yin (2009) indicates that the case study enhances knowledge acquisition, enables the researcher to observe events directly and to interview people having roles to play in the study. Similarly, Stake (1995) notes that a case study examines in-depth an event, programme or activity within a certain time period. This section examines participants, data collected and analysis.

Participants

According to Rubin and Rubin (2005) participants chosen must be knowledgeable about the research problem as this gives credibility. Thus this study purposely selected and interviewed participants who were well informed about the problem, consisting of administrators and faculty members from seven PHEIs (five university colleges and two private chartered universities) representing two institutional categories in Ghana. This was in addition to nine other participants that were also purposely selected. These nine participants consisted of three NAB officials (consisting of the Deputy Executive Secretary, one person from the quality assurance committee and another from the accreditation committee), two retired faculty members and a retired rector of public higher education institutions, a senior education specialist for the African Region, a higher education specialist and former member of UNESCO Commission on Diploma Mills, and a consultant and senior higher education specialist for the World Bank. Altogether, the total number of participants for the study was 16. According to Patton (1990) purposive sampling indicates attributes of particular sub-groups and encourages comparisons.

The researcher's justification for selecting these varied participants is based on the belief that they will provide significant insights into the quality assurance process and challenges encountered in a developing country like Ghana.

Data Collection

The participants were initially contacted through email, followed by Skype, telephone and face-to-face interviews, as the situation demanded. An unstructured open-ended interview protocol served as a guide for the data collection. The researcher conducted all interviews in person and permission was sought from the participants to audio record. Recording of the interviewees offered an accurate data capture (Morgan & Guevara, 2008). In order to maintain confidentiality, actual institutional and participant names were not included in the study. The duration of each interview ranged from 40 minutes to about one hour and fifteen minutes.

Copies of the interview protocols, which were informed by the research question guiding the study, were given to the participants prior to the date of the interview. The interview protocol for administrators and faculty members focused primarily on quality assurance challenges encountered during and after the process of accreditation. The interview protocol for the NAB officials focused on capacity building for PHEIs, affiliation, accreditation timeframe and challenges encountered. The higher education specialists and retired faculty were interviewed about the quality assurance process, the accreditation structure in Ghana and challenges of the quality assurance process. At the end of each interview protocol, interviewees were given the opportunity to express their thoughts on any related relevant issues that were not addressed during the interview.

Data Analysis

This study applied content analysis of the primary data in addition to using both the inductive and deductive approaches. According to Lauri and Kyngas (2005) the inductive approach is used when 'there are no previous studies' or when previous research is minimal. On the other hand the deductive method is applied when a theory is to be tested and analysis is based on previous knowledge (Boyartis, 1998; Kyngas & Vanhanen, 1999).

Interview Analysis

Data analyses included transcription of interviews, preparing memos, coding data, and summaries (Maxwell, 2005; Rubin & Rubin, 2005). The researcher examined themes that emerged from the interviews both deductively and inductively, and further looked for linkages and patterns among themes. The coding was done manually by reading through the interview transcripts several times to look for repeating ideas that were relevant to the research questions. Each interview transcript was read at least three times to acquaint the researcher with the themes that would emerge from the coding process. The first level of the coding process began with open coding which enabled the

researcher to accurately determine which thematic category to apply to the transcripts. The codes were applied to sentences/statements in the interview transcripts and themes were generated from repeating ideas (Auerbach & Silverstein, 2003).

During the second phase of the coding process, similar categories and themes were aggregated together based on the research questions of the study. A second coder also reviewed the data and identified major categories and themes which helped to determine the accuracy of the identified categories and themes. Finally, a draft of the interview transcript was sent to participants as a form of member check to authenticate the accuracy of the emerging themes. The analyzed data resulted in the identification of the following themes including; *vague charter requirements, adjunct faculty, multiple admissions, interference from proprietors* and *accreditation time frame*.

The researcher addressed credibility of the analyzed data by triangulating information obtained from administrators/faculty members of PHEIs with data obtained from retired faculty/rector of public higher education institutions and higher education specialists (Jehn & Jonsen, 2010).

The researcher also addressed the issue of validity by being cognizant of threats. Maxwell (2005: 106) defines validity as a “straightforward, commonsense way to refer to the correctness or credibility of a description, conclusion, explanation, interpretation, and other sort of account”. Two threats to validity in research are noted as the bias of the researcher, and the impact on interviewees, known as “reactivity.” Occasionally when the researcher affects what the interviewee says, that could impact validity (Maxwell, 2005). Importantly, the researcher was cautious about “reactivity” in data obtained from interviewees.

Results

This section examines the themes generated from the data analyzed coming from the 16 participants that are delineated based on participant group category. The higher education specialists and retired faculty members/rector constitute the first group of participants to be discussed.

Higher Education Specialists and Retired Faculty Members/Rector

Two major themes became apparent from the interview analysis of higher education specialists and retired faculty members/rector. These were the challenges of (a) clarification of vague charter requirements, and (b) dependence on adjunct faculty.

Clarification of Vague Charter Requirements

Interview data revealed that there were no definite procedures for PHEIs wishing to apply for charter and being autonomous. Charter is the process of granting autonomy to an institution from its mentor in order to enable it to operate independently and award its own degrees. According to the NAB, the charter process includes operating under a mentor for at least 10 years, having a governance structure, evaluation of teaching quality of academic staff, assessment of research and publication of applicant institutions and other factors that the NAB would determine as appropriate (Accreditation News, 2018). However, one PHEI that had earlier applied for charter on the assumption that it had fulfilled all the stipulated requirements was initially denied. According to one higher education specialist participant, issues of inadequate scholarly research and publications were used by the NAB to initially deny the charter request. However, the NAB did not officially inform them and was silent about the reasons for denial. This was confirmed by a participant (an administrator) interviewed at this PHEI who indicated that the NAB was not dealing with them in a 'quality way'. Generally, scant publication by faculty members is associated with inadequate time to research and publish as a result of high teaching loads. Usually, adjunct faculty members at most PHEIs are mainly focused on teaching and service provision and not research. Eventually, this PHEI was awarded its charter by the president of Ghana in June 2018 (www.nab.gov.gh).

Dependence on Adjunct Faculty

Most PHEIs in Ghana depend heavily on adjunct faculty members because many of them do not have enough core faculty members and

rely on those in the public higher education institutions or retired faculty members to supplement their academic staff. Therefore, the increase in private providers has further emphasized the need for an increase in qualified academic staff (Altbach, 2005; Fried, Glass & Baumgartl, 2007). Though Ghana is noted to have an annual need of 1000 new faculty members for its public higher education sector, each institution is able to hire on average about 20-30 academics a year to replace retiring professors (Hayward & Ncayiyana, 2014). As indicated earlier, adjunct faculty in Ghana do not focus much on research, as emphasis is placed more on teaching and service. And this has negatively impacted the overall academic output from PHEIs in SSA (Varghese, 2004; Mugenda, 2009). A higher education specialist and former member on UNESCO Commission on Diploma Mills stated:

You have faculty who are spread very thin at the private institutions because you've got fewer full-time people, and fewer with PhD coaching a lot of 'moonlighters'.... and that is a time bomb in the making there. (KN, Specialist).

Private higher education institutions have the challenge of recruiting core faculty to reduce their dependence on adjunct faculty, as this will increase research output in the long run.

NAB Officials

The NAB of Ghana represents the regulatory frame of the quality assurance process that higher education institutions have to abide by. It also signifies the authority of the state in enforcing regulations guiding the quality assurance process and ensuring that higher education institutions in Ghana remain legitimate. Data analyzed from interviews with three officials of Ghana's National Accreditation Board identified a number of challenges that impacted legitimacy as follows: (a) Shortage of qualified academic staff employed at PHEIs, (b) Non-compliance of private institutions to the time-frame given to them for programme and institutional accreditation, and (c) A level of dishonesty on the part the institution seeking accreditation.

Shortage of Qualified Academic Staff

The shortage of qualified academic staff at PHEIs in Ghana is noted by NAB officials as one of the major challenges impacting staffing strengths at PHEIs. A member of the accreditation team stated:

There is the bigger issue of dearth of faculty. There aren't enough people in the system. The institutions are expanding and we are not expanding the pool of lecturers [faculty members] or PhD holders. It is a national problem. (RA, Accreditation Committee)

The preceding quote affirms shortage of qualified faculty members in Ghana in particular and it dovetails into a similar assertion by higher education specialist participants who also indicated shortage of academic faculty as a challenge for PHEIs and the quality assurance process. However, this is a bigger issue in SSA as a whole (Hayward & Ncayiyana, 2015). Research indicates some of the compelling challenges to the quality assurance process in Sub-Saharan Africa include inadequate human resource and minimal participation of the administrative staff (Manyaga, 2008; Okebukola, 2002).

Non-Compliance of Institutions to Given Time-Frames

Data obtained from interview analysis indicates that some PHEIs do not comply with the time frame given to them for programme and institutional accreditation. An NAB official, who is a member of the accreditation committee lamented:

Some (institutions) may want to start a programme in September, but will delay and bring the application in June of the same year. And when we are not flexible about it then they begin to complain. So the Board implemented a policy that in applying for a new programme/new institution, apply at least 12 months to the envisaged start date. But if it is a programme or institutional reaccreditation, apply six months to the expiry date. Even this, they [private higher education institutions] have not been adhering to. (RA, Accreditation Committee)

The earlier quote indicates the delay by the PHEIs in submitting their application for programme and institutional accreditation. This is one salient challenge that the NAB has to grapple with on a regular basis. Even after delaying in the submission of their applications, they

will rather pressure the NAB to fast track their application even though applicants did not adhere to the specified timeframe.

Dishonesty on the Part of Some Accrediting Seeking PHEIs

Data obtained indicates dishonesty on the part of some PHEIs seeking accreditation. A participant from the quality assurance committee stated:

One of the biggest challenges is being truthful to the system... Sometimes when an institution wants accreditation, they go to all lengths to get the CVs [resumes] of various qualified professors to convince us to give them accreditation. Once you give them accreditation, you go to the ground and you don't see the professors. (QF, Quality Assurance Committee)

This statement has shown that some PHEIs could be very manipulative and would employ all kinds of methods just to gain accreditation and legitimacy from the NAB. Currently, the NAB does not have the mechanism to track PHEIs involved in this anomaly successfully. However, the establishment of an accreditation management information systems will enable the NAB verify information of faculty members and eliminate this irregularity that negates the legitimacy of PHEIs.

Faculty Members and Administrators of Private Higher Education Institutions

Data analyzed from interviews with faculty members and administrators of five private university colleges and two private chartered institutions identified five themes associated with legitimacy challenges.

The identified themes were: (a) Conflicting requirements from NAB and mentoring institutions, (b) Lack of regular and formal communication about an institution's request for charter, and (c) Unequal treatment of private university colleges in comparison with the public universities, and

(d) Conflicting Requirements from NAB and Mentoring (Supervising) Institutions

Participants revealed that during programme or institutional accreditation, recommendations given by the NAB and the mentoring (supervising) institution sometimes conflict. Therefore the private institution seeking accreditation is confused as to whose recommendation should supersede the other and this presents a challenge to them. A participant at a private university college stated:

The challenge we had, has to do with the accreditation process, you know we are affiliated to Legon [University of Ghana]... the NAB will come and assess, give their comments, University of Ghana will come and assess, give their comments and sometimes you will find that their comments are conflicting. So you are at a loss as to which way to go... University of Ghana is to give certificates to your products so if you are not going by their standards they are not issuing our certificates. And if you don't go by the NAB recommendations, they are going to withdraw your accreditation. So you are at a loss as to which one should take precedence. And that has been a major challenge we are facing. (PF, Faculty Member)

When this participant was probed further to indicate how such conflicting situations were dealt with, he noted that the institution had to liaise with both parties until a consensus was reached. This frustrating and challenging situation impacts negatively and delays the process of a private provider seeking recognition and legitimacy.

(e) Lack of Regular and Formal Communication About an Institution's Request for Charter

Participants indicated the lack of regular and formal communication between private university colleges and the NAB about charter applications as a challenge to be addressed. Charter is defined by the NAB as an "assent by the President for a tertiary institution to award its own degrees, diplomas and certificates" (Accreditation News, 2018). As earlier noted, one participant indicated that her institution had officially applied for charter believing that they had fulfilled all the requirements after being in existence for 12 years. She lamented the lack of formal communication between the NAB and her institution about the charter application request and commented:

They [NAB] are not dealing with us in a quality way. You would expect that they would at least write to us and acknowledge receipt. You would expect that after they (NAB) had their meeting ... that they would have written to us. (PV, Vice-Provost)

Thus there is institutional dissatisfaction with NAB being in a position of authority and not providing adequate information to mentee institutions. Ashforth and Gibbs (1990: 182) observe that “both constituents and supporters are likely to prove most grudging when organizational technologies are uncertain or risky....” Notably, the feeling of uncertainty and dissatisfaction on the part of the charter seeking institution about the lack of regular communication from the NAB is a challenge that impacts the legitimacy of the institution.

Unequal Treatment of Private University Colleges in Comparison with the Public Universities

The majority of the participants complained that the NAB favored the public higher education institutions over the private institutions in their role as the overseeing accrediting body. They observed that the NAB is softer on the public universities in terms of accreditation and quality assurance requirements. A participant who is an administrator at a private university college explained:

Sometimes I just feel that they are not painting all the universities in Ghana with the same brush. They are a little soft towards what I will term the main stream public universities. But when it comes to the private universities, they are very tough. In a way, you can understand them because these are universities that were set up just to augment the intakes and increase the level of education in Ghana... And they [NAB] need to make sure that they exercise that authoritative role on them to make sure they conform....When it comes to the public universities like the University of Ghana etc.... these are traditional universities that have been in existence for so many years and they assume that whatever they do is in line with their expectations. (RA, Administrator)

Though the participant was of the perception that the NAB did not treat the private and the public institutions on equal basis, he advanced a reason for such stringent oversight by the NAB as being due to the fact that the PHEIs have not been in existence for too long. In addition, the

limited resources and facilities at the disposal of PHEIs when compared to that of public universities, may merit the unequal treatment from the NAB.

Invariably, the study found evidence that legitimacy procedures relating to quality assurance requirements as indicated by the NAB, influenced the activities of PHEIs and enabled conformity (El Hassan, 2013; Suchman, 1995; Suspitsin & Suspitsyna, 2007). However, the themes delineated on indicated challenges that institutions have to address in their bid to be recognized as legitimate.

Discussion

The data in this study indicates the challenges that both PHEIs and the accrediting institutions encounter during the quality assurance process, especially in the bid of accrediting seeking institutions to become legitimate in conformity to the requirements of the NAB.

Findings from this study revealed that PHEIs will want to maintain their legitimacy after gaining it from the NAB through conformity. In spite of the challenges encountered, PHEIs are still making efforts at maintaining their legitimacy. One outcome of this study indicates that information about charter requirements needed to be made more explicit by the NAB to PHEIs that want to become autonomous within the stipulated ten-year mandate. During interviews, participants stated that there was lack of communication between the NAB and PHEIs that want to be autonomous regarding additional unwritten requirements. The communication gap about additional charter requirements on the part of the NAB as a regulatory body creates uncertainty and vagueness and is also a challenge for the PHEI seeking charter.

Accreditation granted to PHEIs in response to conformity to quality assurance standards, indicates acceptability as well as the institution's compliance to beliefs, values and rules in the environment that it is located. This study found evidence that, generally, PHEIs in Ghana made the necessary efforts to comply with the requirements of the quality assurance process in order to gain accreditation and be recognized as legitimate. Failure to abide by the regulations will result in sanctions and thereby loss of recognition and legitimacy (Giesecke,

2006; Gonzalez, Montano & Hassall, 2009; Santana et al., 2010; Suspitsin & Suspitsyna, 2007; Wilkins & Huisman, 2012).

This study revealed a substantial dependence on adjunct faculty members by PHEIs. In view of the continual growth and expansion in PHEIs, there is the anticipation of an additional need for both academic and non-academic staff. This exposes the dearth of full-time faculty members as well as shortage of those having doctorates or research degrees available to teach (Fried, Glass & Baumgartl, 2007; Hayward & Ncayiyana, 2015) at PHEIs.

Findings further indicate that many of the PHEIs in Ghana rely on the public higher education institutions or retired faculty to address their staffing needs, thus further impacting the legitimization process. The increase in the number of private institutions has further deepened the need for qualified academic and non-academic staff. Findings further agree with the advocacy of Hayward and Ncayiyana (2014) about the need for a quality assurance process that pays particular attention to doctoral education and research. The authors further advocate that graduate education should take on a more regional role in West Africa as is the case in the country of South Africa where graduate students from countries outside the South African region pursuing either Master's or doctoral programmes pay highly discounted fees. The University of Ghana (in West Africa) also runs a similar venture where doctoral students in the African sub-region take part in a six-week programme and are trained in dissertation writing among others. This programme, called the Pan African Doctoral Academy, is offered twice a year and is highly subscribed (www.ug.edu.gh). It is projected that an increase in the number of doctoral degree holders will impact the number of available full-time faculty for PHEIs and further enhance their capacity and legitimacy in Ghana.

The study also showed that some PHEIs were non-complaint to the time frame given to them for programme and institutional accreditation thus impacting the legitimacy process. For example the NAB had to give institutions extra time beyond the stipulated time for their programme and institutional accreditation renewal. This challenge of delays in institutional and programme accreditation affects the legitimacy of a PHEI as it is not able to maintain it on a continuous basis and thus has to lose it at a particular point and work to regain it again. This outcome could also be linked to the challenge associated with the lack of

competent administrative support staff to assist with accreditation documentation of the PHEIs (Manyaga, 2008; Okebukola, 2002).

Furthermore a surprising finding from the study was that some PHEIs seeking accreditation use the curriculum vitae of qualified professors to convince the NAB about their legitimacy. Once accreditation has been obtained, the faculty members presented during the accreditation process become non-existent on the college's list. This indicates the manipulative and dishonest nature of some PHEIs to gain legitimacy. Once this anomaly is detected, the institution's legitimacy is jeopardized, eventually losing it and the institution will have to work at regaining its legitimacy again (Suchman, 1995). It is suggested that the NAB develops a system that verifies and ensures that faculty members listed as staff of a private higher education are genuine and not put there purposely for accreditation purposes.

Limitations and Future Research

This qualitative study focused on the challenges confronting the quality assurance process using the perspectives of international higher education specialists, retired faculty members/ rector, administrators and officials of the National Accreditation Board. However, a number of limitations of the study are noted.

First, the purposely selected sample of PHEIs is a minor exemplification of the available sample when the total number of institutions in Ghana is taken into consideration. For future research it could be informative to increase the number of selected institutions and juxtapose it against public higher education institutions in the country to explore the legitimacy challenges encountered. The proposed comparative study could indicate whether public higher education institutions also encounter similar challenges associated with private providers while adhering to the regulations of the National Accreditation Board.

Second, public higher education institutions in Ghana could be used to replicate this study to determine how they abide by the requirements of the NAB and whether they also encounter similar challenges during the quality assurance process and the impact on their legitimacy. This future research recommendation can guarantee that the

NAB is not favoring the public institutions over the private institutions by overlooking certain requirements.

Conclusion

Regulation and legitimacy are required during the quality assurance process to send the required signal to all stakeholders that PHEIs offering programmes have undergone the mandatory processes to qualify to be accredited. As a result of the continual growth of private higher education providers in a developing country like Ghana, it is imperative for the NAB to make the quality assurance process very welcoming to genuine actors so that challenges that confront the process can be minimized if not eliminated completely. Some of the challenges that were addressed in the study included conflicting requirements from both the NAB and mentor institution, shortage of academic staff, noncompliance to timeframe given for programme and institutional accreditation, and lack of regular communication about an institution's charter request. These challenges will require a holistic approach involving both the NAB and the PHEIs for lasting policy solutions to address them.

At the regional level, Africa has a number of sub-regional networks including the Association of African Universities (AAU) Quality Assurance Initiative, and the Southern African Development Community (SADC) quality assurance framework. These sub-regional networks have the stated objective of ensuring the quality of higher education institutions in their jurisdictions (Okebukola & Shabani, 2007) through the formulation of policy guidelines to impact all countries especially those that do not have local quality assurance agencies.

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Knowledge of Human Resource Metrics and Engagement of Academic Staff of University of Lagos

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Abstract: The predictors of employee engagement in an organization have been given much attention in the literature, but measuring value added of employee in terms of knowledge of human resource metrics as predictors of employee engagement requires more study especially within the Nigerian context. It is within this purview that this research work examined the perceived knowledge of human resource metrics in employee engagement with particular reference to the academic staff of University of Lagos. A quantitative research method was adopted using a convenient sampling technique to randomly select a total sample size of 103 respondents. Analyses of the data collected through the use of questionnaires were carried out using a regression statistical tool. The regression value for the null hypothesis was 0.388. Therefore, the findings revealed that the knowledge of human resource (productivity) metrics can be used to predict employee engagement. That is, knowledge about contributions, estimated rate of returns and wealth created by each employee will provide monetary arguments for workers/unions when suggesting investments in human resource which can be used to predict employee engagement in terms of their vigour, concentration and dedication to their work. Possible further studies should investigate the disclosure of human resource value in numeric terms so that employees could be better equipped to negotiate their terms and conditions of employment.

Keywords: Human resource metrics, measurement, knowledge economy, employee engagement, Nigeria

Introduction

There is a paradigm shift from a conceptualized human resource management practice to evidence-based human resource management. None of these concepts or practices of human (HR) resource management go beyond using intuition to determine which levers HR can pull to impact a company's overall success, i.e., providing concrete evidence of the true drivers of the company, and how can HR influence those drivers (John & Christopher, 2015). Also noted by Trivedi (2015), that previously, human resource was considered as a managerial function where decision making was typically based on previous proficiency, approaches, or instinct.

This is because of factors such as the advent of new technology, global markets, and continuous changes in business needs; thus, HR professionals must develop their capacity to make lively assessments by using metrics that determine the quality, quantity, cost, and effectiveness of HR curriculums. In other words, a growing interest in evidence-based management has produced a rapidly growing interest in HR metrics and workforce analytics (Carlson & Kavanagh, 2018).

Generally speaking, there are three different kinds of metrics that organizations can collect in order to better understand and evaluate the impact of HR activities and to influence business strategy and business performance. They are *efficiency*, *effectiveness*, and *impact* (Boudreau & Ramstad, 2003, in Edward, Lawler, Alec & John, 2014).

The first kind of metric and in many respects the easiest to collect is the one related to the efficiency of the HR function, including productivity and cost metrics for the HR function such as time to fill open positions, HR headcount ratios and administrative cost per employee, as well as human capital return on investment, a measurement tool that is considered when calculating monetary return for one unit financial investment in human capital of an organization and assisting them in calculating the net profitability. Using this metric, companies can determine the value that is created as a result of investment in their workforce (Parham & Heling, 2015).

However, employee engagement is arguably the most critical metric for organizations in this knowledge economy, though other key measures that reflect and drive organizational performance include,

among others, customer satisfaction, innovation, profitability, productivity, loyalty and quality, which are products of engaged and committed employees, because it is believed that managers in both private and public sectors would agree that engaged employees make a critical difference when it comes to innovation, organizational performance and competitiveness (Bakker & Schaufeli, 2008).

Kaplan and Norton (1996) proposed that HR metrics involve the operational expression of the theory of how people contribute to organization success and, in effect, measuring the value of intangible assets as to how closely aligned those assets are to the organizations' strategy will create value for the organization (Kaplan & Norton, 2004, in Bhatnagar & Pandey, 2005). Invariably, one can say that metrics deliver a number of variables that can be precise in showing how HR interposes to the business and employee's knowledge of their contribution to the revenue and cost to the organization's productivity and this shows that HR is aware of the value of human capital dimension in supporting business purposes (Trivedi, 2015).

Thus, employers want to know what will engage workers, what will make them energized and productive on the job and committed to the organization. The employees on the other hand want to know what the organization will do for them in terms of favourable terms and conditions of employment (Boone James et al., 2011).

So, it is imperative to know how knowledge of human resource metrics can impact employee engagement, making human resource metrics a possible tool for predicting employee engagement for standard human resource management practices and policies. Understanding if the employee is aware of the value added to the organization in monetary terms and the cost expended on them in the light of their productivity could affect their engagement.

Literature Review

Different predictive factors like job climate, organizational climate, reward, career, to name a few, have been argued and empirically validated as determining for employee engagement. It seems that every organization, either public or private, often measures its performance based on its productivity, because an increase in productivity means

that the organization has realized more revenue than its costs, which in reality were achieved through its human resource. Based on this premise, the knowledge of productivity metrics as a performance indicator is germane to operationalize the concept of human resource metrics and its influence on employee engagement.

Human Resource Metrics

Roman (2015), noted that statements such as "our employees are our greatest asset" can often be found on corporate websites, in business and social responsibility reports and are supposed to underline the relevance of a company's human capital embodied in its employees, possibly being a strategic success factor. If the saying that 'what you cannot measure, you cannot manage' holds true, then no adequate management behaviour would be able to follow and in practice, the credibility of such statements requires quantitative methods for the assessment of human capital.

Also, Marko, Antti, Jari and Mario's study (2011) describes how human resource metrics and competencies may inform performance measures, in particular business scorecards. The development of key competencies improves organizational performance and performance outcomes. This is why Kaplan (2010) argues that if companies were to improve the management of their intangible assets, they would have to integrate the measurement of intangible assets into their management systems.

After reviewing research and survey findings of Gallup, Hay Group, ISR, Right Management, Blessing White and HR Annexi by Siddhanta & Roy (2010), we concluded that employee engagement depends on four major conditions in the workplace: the organization's culture, continuous reinforcement of people-focused policies, meaningful metrics and organizational performance. Meaningful metrics refer to devising performance measurement criteria in such a way that employees are clear about their goals. Organizational performance leads to pride, job satisfaction, trust and a sense of belongingness to the organization.

However, Pöyhönen & Hong (2006.) explored the role of measurement in enabling continuous organizational learning. First,

they argue that while traditionally, measurement has been mostly used for control purposes; recent changes in the nature of work have brought new challenges which can no longer be met with the old mind-sets and measures, that seeing the purpose of measurement as enabling learning rather than as enabling control implies changing several features. Specifically, they argue that such measures should be dynamic, collective, localized, based on the organizational strategy, oriented towards the future, and aimed at enabling reflexive learning.

Similarly, Momin & Mishra (2015) highlight how the strategic workforce planning provides a multi-dimensional approach towards building human capital. HR analytics help to identify the skills and create the leaders of tomorrow. Thus, with the help of HR analytics a strategic workforce plan will reduce attrition rate, mitigate risks and build a value added training culture for the organization. Trivedi (2015)'s study makes an effort to comprehend the significance of HR metrics and their effectiveness and the instinctive method to determine HR. It shows that HR metrics are an essential way to compute the outlay of HR and then influence the workforce plans as well as HR developments to determine the success or failure of HR propositions.

In the context of resource based view, Roman (2015) emphasizes that Resource Based View of strategic management, analysing the human resource of a specific firm in terms of its potential to serve as a source of a sustainable competitive advantage requires an examination of the resource value. He stated that the question of how to parameterize this value, i.e. how to calculate human capital leads to an integration of RBV reasoning with market based models of the competitive environment at the factor and product market side. However, from the analysis of his study, it shows that using wages and salaries or pricing mechanism of the product market will not be an appropriate basis for the valuation of human resource, unless and until human resources are continuously being viewed as assets, like other intangible assets, then the basis for calculating the value of human resources can be justified both in the long run and the short run.

Human resource metrics and business impact

Ulrich's study (1997) shows the impact of HR on business results, by showing how HR practices relate to a business' balance scorecard through productivity, people, and process indicators; and by showing how to audit HR practices, professionals, and departments. He argues that one of the most common weaknesses of HR professionals is fear of quantitative, measurable results and such fears may come from a lack of knowledge or experience with empirical assessments of HR work.

However, Chhinzer & Ghatehorde (2009) show that multiple studies support a statistically significant relationship between HR metrics and the organization's financial performance (OFR), but not a single one has examined a predictive relationship between them. It is against this background that the authors examine obstacles in the use of HR metrics to affect organization financial performance; the concept of a universal set of traits appeared implausible for a number of reasons. They argue that metrics selected should be dependent on the individual company's strategy, organization, and priorities in such a way that HR measure impact, develop tools to quantify impact, develop steps to make it happen, and actions that link work with business results and the data to prove it.

Also, Marwah, Thakar & Gupta (2014) set out to empirically assess the effects of human metrics on supply chain performance in the context of Indian manufacturing organizations. The outcomes of their research work provide valuable implications for the Indian manufacturing organizations to understand the factors affecting supply chain performance.

In other words, the emerging trend for HR professionals and HR trainer is to become a business partner by understanding the key performance indicators in the business and aligning relevant HR functions to achieve the business objectives. Invariably, as a strategic HR business partner, relevant metrics should be align to the business goals and objectives so as to achieve appropriate return on investment.

Employee Engagement

Employee engagement is defined as the extent to which employees commit to something or someone in their organization, how hard they work and how long they stay as a result of that commitment (Swetha & Kumar, 2010). Also, employee engagement can be viewed as a measurable degree of an employee's positive disposition or negative emotional attachment to job, colleagues and organization which profoundly influences his willingness to learn and perform at work (Siddhanta & Roy, 2010).

However, Bakker's study (2008) shows that job and personal resources are the main predictors of engagement. These resources gain their salience in the context of high job demands and that engaged workers are more open to new information, more productive, and more willing to go the extra mile. Boone James et al. (2011), also argues that the following factors are predictors of employee engagement: (1) supervisor support and recognition; (2) schedule satisfaction; and (3) job clarity for all age groups; (4) career development was a predictor for all but the retirement-eligible employees.

Also, Bhatnagar & Biswas's research (2010) extends the resource-based view of the company to employee engagement and explores linkages with firm performance. He argues that employee engagement interacts with other intangible variables such as the sense of justice and psychological contract which an individual feels and expects, respectively, and that an individual's psychological contract is shaped by the organization's HR policies along with many social cues from the work environment.

As part of HR policies, it appears that performance management can be used to increase levels of employee engagement by conceptualizing five major activities that serve to organize relevant behaviours shown to be either direct or indirect predictors of employee engagement, these major activities include setting performance and development goals, providing on-going feedback and recognition, managing employee development, conducting mid-year and year-end appraisals, and building a climate of trust and empowerment (Mone, et al., 2011).

This is the reason why David, Daniel, Dennis and Suzette (2011) emphasize that measuring workforce attitudes is a business imperative, including during an economic downturn and argue for the business value of an engaged workforce.

Also, a variant from the above arguments by Pati & Kumar (2010) shows that differences between self-efficacy levels in employees are primarily responsible for differences in displayed engagement and based on these findings the study argues and defines engagement as expressed empowerment pertaining to a role thus enriching the management literature concerning engagement.

Similarly, these findings support the notion that lateral social exchange relationships in the workplace are an important antecedent of work engagement and, more importantly, their beneficial effects on work engagement are contingent on certain types and/or levels of personality traits (Liao et al., 2013).

However, putting together the argument of the two contending perspectives on employee engagement, it shows that the antecedent of employee engagement are both situational (job based and organizational based) and personal attributes (levels of individual differences), i.e. organizational context, job context and individual self-efficacy level can be considered as predictors of employee engagement and that HR metrics as a situational tool of performance management has not been considered as a predictor of employee engagement.

Human Resource Metrics and Employee Engagement

More than ever before, managers in both private and public sector would agree that employees make a critical difference when it comes to innovation, organizational performance, competitiveness, and thus ultimately business or organizational success (Bakker & Schaufeli 2008).

In other words, an engaged employee is critical to the organization's success factor. Employee engagement means a high internal motivational state which is reflected in positive feelings and attitudes of an employee towards their job and the organization (Sharma & Raina 2013). Driving employee engagement, MacLeod (2009, in Bhatnagar & Biswas 2010) found in both public and private

sectors that leadership, line management, employee voice and integrity are key enablers of engagement.

In concrete terms, the antecedents of employee engagement are both situational conditions (meaningfulness, safety, availability, support from co-workers) as well as personal attributes (internal locus of control) of the employees (Sharma & Raina 2013).

However, employers increasingly want to know what will engage workers, make them energized and productive on the job and committed to the organization. The employees, on the other hand, want to know what the organization will do for them in terms of organizational favourable job conditions (Boone James et al, 2011).

It is within this purview that human resource metrics becomes imperative as a tool for predicting employee engagement for standard human resource management practices and policies. That is, changes in management practices that increase employee satisfaction may also increase business-unit outcomes, including profit (Bhatnagar & Biswas, 2010).

Putting human resource metrics into proper perspective, antecedents show that traditional approaches to organizational and people development, however, tend to focus more on the law of economics with a view to maximizing financial return on employer investment. These approaches can be traced back to the influential, innovative writings of Taylor (1911) in which strategies for optimizing organizational deliverables focused on matters such as recruitment, job design and motivation based on financial incentive.

Although, a number of researchers in the field of HR (McGregor, 1957; Mayo, 1949 in Havenga, Stanz, Visagie and Karin, 2011), positioned themselves in opposition to the so-called Taylorism and argued that the mechanistic approach of Taylor and his followers was both flawed and unsustainable, largely because it neglected the importance of group dynamics which contribute both to employees' attitudes to work and to their output. Such views initiated a range of theories in the 1950s and 1960s which focused not only on reducing work to its bare elements, but also on enriching it by attending to motivators of individual and team development.

These researches lead to the so-called human relations approach which focuses on workers themselves and suggests strong worker

relationships, recognition and achievement as motivators for increased productivity (Daft, 1997, in Havenga, et al.,2011).

However, as the world of work becomes more competitive, a more recent human resource return on investment (ROI) has been identified, which is return on intangibles. Intangibles represent the hidden value of a company and are becoming an increasingly important portion of a company's total market capitalization (Ulrich & Smallwood, 2005).

Intangible assets, different from financial and physical assets, are difficult for competitors to imitate, which makes them a powerful source of sustainable competitive advantage and if managers could find answers to estimate the value of their intangible assets, it would be possible to measure and manage the organizations' competitive position much more easily and accurately (Kaplan & Norton, 2004 in Bhatnagar & Pandey, 2005). Taking into consideration globalization and varying business dynamics now escalating challenges to HR and line management on how best to progress and arrange a responsive and extremely proficient employees while providing cost efficiency, HR metrics deliver a number of variables that can be precise to show how HR interposes to the business and employee's knowledge of their contribution to the revenue and cost of the organization productivity can influence employee engagement (Trivedi, 2015).

Theoretical Framework of the Study

Social Exchange Theory

Saks (2006 in Sharma & Raina 2013), argued that the stronger rationale predicting employee engagement hinges on the social exchange theory that when individual receive economic and socio-emotional resources from its organization they feel obliged to repay the organization by showing commitment to the aims and objectives of the organization. Similarly, this principle of social exchange theory was acknowledged by Kahn (1990) when he concluded that people are different in their engagement as a function of their perception of the benefits they receive from a role. That is, these benefits might be in the form of meaningful work and/or external recognition and reward. This is pointing to the fact that appropriate recognition and reward are

germane for engagement. The same holds true for a variety of other HR policies and practices like human resource metrics have emerged as the critical predictors of employee engagement especially when they have a knowledge of the extent of value added in monetary terms.

General System Theory

System theory as a unit of analysis is understood as a complex of interdependent parts, an open-versus-closed system, dependent on the environment for inputs, which are transformed throughout to produce outputs that are exchanged in the environment (Bassegy & Arzizeh, 2012). Specifically, human resource metrics operate an open system, the cost incurred in training and developing skills, abilities, competences and knowledge from individual employees coming from the environment is the input cost, the cost incurred in ensuring that the employees behaviour in terms of its basic altitude, knowledge, skills and abilities are tailored with the basic goals and objectives of the organization can be term maintenance cost or process cost and the output is the expected return from the organizational performance in terms of its human resource contribution in achieving its effectiveness or efficiency .That is, the levels of engagement within an organization can have a substantial and measurable impact upon the outputs of an organization (Havenga, Stanz, Visagie & Karin, 2011).

It is against this background that the researcher wants to examine the knowledge of human resource metrics as a predictor of employee engagement because understanding if employees are aware of the value added to the organization in monetary terms and the cost expended on them in the light of their productivity could influence their engagement.

Research question

Does the knowledge of human resource metrics affect employee engagement of Academic Staff of University of Lagos?

Research Hypothesis

Hypothesis I

H₁: The knowledge of HR metrics has no influence on employee engagement.

Method

For the purpose of this research work, a correlational research method was adopted because our study attempts to explore relationship between or among variables in order to make a prediction which is germane to a quantitative research method. Also, for the purpose of this research work, the data used was primary data and secondary data. The primary data was derived through the administration of questionnaires and the secondary data was from empirical journals, articles, publications, texts written by various authors that related to the study.

The population used for the research consists of the academic staff of University of Lagos, Nigeria. At the time of the study, there are 1272 academic staff in the University. These academic staff span across all the twelve faculties in the University. These are: Faculty of Management Sciences, Faculty of Law, Faculty of Social Sciences, Faculty of Environmental Sciences, Faculty of Education, Basic Medical Sciences, Clinical Sciences, Dental Sciences, Faculty of Arts, Faculty of Science, Faculty of Pharmacy and Faculty of Engineering.

This was chosen with the belief that academic staff is a major driving factor to the growth and development of the university and that it will provide an overview regarding the perceived added value and wealth created by each employee which can provide monetary arguments for unions when suggesting investments in human resource which, in turn, can be used to predict their vigour, concentration and dedication to their work. Generally, it will provide an overview into the perceived use of human resource metrics on staff engagement in the public service. The sample size of 103 was determined using response to item ratio and participants were randomly selected.

This sampling technique was used because it eases the urgency of data collection from the study population with the use of questionnaire. In order to ensure both validity and reliability of the research instrument, i.e. the questionnaire, the validity of the instrument was done through content validity by expert in human resource management which helps to determine whether the questions on the scale cover a wide range or domain of the activities which constitute the construct being measured. In what concerns reliability, Cronbach Alpha was used to test for it. Based on the analysis of the result, the reliability test is 0.877 approximately 0.9 Cronbach's Alpha which is above the

standard of 0.7 for showing the reliability of research questions. Based on the above, it shows that the research instrument used to collect the data is valid and consistent with the data collected.

Results

A simple descriptive analysis was conducted on the demographic data. *Table 1* is an illustration of the summary of the data. The formulated hypothesis is tested using inferential statistics based on 0.05 probability level of significance. The result of the test is also presented in *Table 2* below.

Table 1. Analysis of Respondents

Descriptive	(N=103)	Percent (%)
Gender		
Male	74	71.8%
Female	29	28.2%
Marital Status		
Single	44	42.7%
Married	59	57.3%
Age		
20-29	36	35%
30-39	28	27.2%
40-49	29	28.25%
50 and above	10	9.7%
Qualifications		
B.Sc	34	33.0%
M.Sc	31	30.1%
Ph.D	38	36.9%
Grade levels		
Graduate Assistants	47	45.6%
Assistant Lecturers	17	16.5%

Lecturer 11	18	17.5%
Lecturer 1	8	7.8%
Senior Lecturer	9	8.7%
Associate Prof	2	1.9%
Years in the University		
Below 5yrs	63	61.2%
6-10yrs	21	20.4%
11-15yrs	12	11.7%
16 and above	7	6.8%

Table 2. Analysis of items in the questionnaire

S/N	ITEMS	AGREED	UNDECIDED	DISAGREED
1.	Knowing the amount of wealth created by each employee improves performance	76.7%	6.8%	16.5%
2.	Promotion is based on the amount of profit added by each employee	73.8%	2.9%	23.3%
3.	Salary paid to employees is the contribution made by each employees	41.7%	7.8%	50.5%
4.	Knowing the contribution made by human resource help demand for increase in wages and salaries	72.9%	9.7%	17.5%
5.	Information on contribution per employee has increased human resource development programmes	66.0%	12.6%	21.3%
6.	Estimated rate of return	53.2%	15.5%	31.4%

	per employee cannot be compare with the cost per employee			
7.	Knowing employee estimated rate of return is a sine quo non for employee retention rate	46.8%	9.7%	23.3%
8.	Value of HR contributions provide monetary arguments for unions when suggesting investments in human resources	72.8%	11.7%	15.5%

Test of Hypothesis

Hypothesis I

H_1 : The knowledge of HR metrics has no influence on employee engagement.

The test of hypothesis seeks to further analyse research questions which relate to the purpose of the study, that is, depicting the perceived use of human resource metrics on employee engagement among the academic staff at University of Lagos.

Table 3

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.388a	.151	.142	.54851		
a. Predictors: (Constant), Knowledge of HR Metrics						
ANOVAa						
Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	5.385	1	5.385	17.899	.000b

	Residual	30.388	10 1	.301		
	Total	35.773	10 2			
a. Dependent Variable: Employee Engagement						
b. Predictors: (Constant), Knowledge of HR Metrics						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.

Source: SPSS Extract

A linear regression was carried out to ascertain the extent to which knowledge of productivity metrics (PM) can predict employee engagement. A positive correlation was found between knowledge of productivity metrics and employee engagement ($r = .388$) and the regression model predicted 15.1% of the variance (R square) suggesting that 15.1% variance in employee engagement can be explained through the knowledge of HR metrics. Also, its coefficient suggests that for every one percent increase in the knowledge of HR metrics, there will be 30.6% increase in employee engagement. Therefore, since ($F = 4.308, p < .0005$) and the significance level is 0.000 which is less than 0.05 level of significance, hence, we reject the null hypothesis H_1 and accept the alternative hypothesis H_2 that: *the knowledge of HR metrics has influence on employee engagement.*

Discussion of Findings

It can be concluded that knowledge about contributions, estimated rate of returns and wealth created by each employee will provide monetary

arguments for unions when suggesting investments in human resource that can be used to predict employee engagement in terms of their vigour, concentration and dedication to their work. That is, the demands of academic staff of the universities for earned academic allowance can be informed by the perceived knowledge of HR metrics within the University system. This is consistent with Kahn's findings (1990), that people are different in their engagement which is a function of their perception of the benefits they receive from a role (Kahn, 1990).

Conclusion

This study shows that value in numeric terms should be placed on how individual employees can determine their worth either before or during employment so as to negotiate skilfully with the employers during the process of establishing new or renewing their terms and conditions of employment.

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The Administrative Procedures of Total Quality Assurance in Saudi Public Universities

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Abstract: This study aims to investigate the administrative procedures of total quality assurance in Saudi Public Universities. This descriptive qualitative study has a document-research type of design. A purposive non-random sampling was used. The type of qualitative data used in this study included documents that were collected during the academic year of 2018-2019. The researcher used manual analysis of qualitative data through consequential processes. The findings revealed that there are departmentalization and clear divisions and subdivisions for development and total quality throughout the university. Additionally, the findings identified responsibilities and a clear line of authority for individuals who are responsible for total quality and its development at all levels of the university. The study recommends that the academic leaders should work hard to enhance and convey the responsibility of the culture of total quality through all administrative levels and among faculty and staff.

Keywords: Higher education, total quality, administrative procedures, quality assurance, accreditation.

Introduction

Total quality is an approach to ensure the quality of inputs, processes, services, activities, and outcomes in the higher education institutions. Several studies indicated that implementing the total quality in higher education institutions increases the quality of services, the quality of academic programs, and ultimately the quality of outcomes (Ragad, 2017; Alkrdwi, 2009; Alteeb, 2016). Additionally, total quality increases efficient performance and ensures continuous development and improvement of higher education institutions (Srikanthan, 1999). In the higher education institutions “achieving the quality education has been part of the tradition of academic” (Cheng, 2016: 4).

Total quality was considered by the International Organization for Standardization (ISO), which published several versions of ISO Standards 9000, 9001, 9002, 9003, and 9004 (Abbadi, Bouayad, & Lamrini, 2013). More specifically, Woodhouse (2013) stated that ISO standards in higher education institutions focus on three points of the total quality: 1) “checking the suitability of the planned quality procedures in relation to the stated objectives, 2) the conformity of the actual quality activities with the plans, 3) and the effectiveness of the activities in achieving the stated objectives” (p. 3).

Currently, to be competitive, the concern and demand for quality in institutions of higher education have increased (Koslowski, 2006). Moreover, “the quality in higher education—how to enhance it and how to evaluate it—has been placed squarely on the contemporary agenda in higher education” (Srikanthan & Dalrymple, 2002: 215). The unique purposes of higher education institutions are examples of why development of these institutions is necessary for a society to be successful because they can offer quality service and knowledge. Sallis (2005) proposed four reasons that are also called *quality imperatives* and these are “the moral imperative, the professional imperative, the competitive imperative, and the accountability imperative” (pp. 3-4). Total quality in higher education institutions has been used as a tool to ensure a realistic and efficient response to current changing situations and government mandates as well as ensure effective processes of ongoing improvement (Harvey, 1998).

To ensure the quality of higher education, the universities and colleges established their strategic plans to achieve the institutional and academic accreditations. Accreditation enables universities and colleges to meet quality standards through quality assurance, continuous improvement and assessment (Rayn, 2015). Also, accreditation focuses on accountability and improvement of the higher education institutions (Woodhouse, 2013). “Through the twentieth century more accrediting bodies were formed to address the quality assurance and quality improvement needs of an increasing number and variety of institutions and programs” (Phillips & Kinser, 2018: 2). Therefore, the main purpose of accreditation is to check the extent to which the universities and colleges are achieving the intended objectives.

There are many countries around the world with established and accrediting agencies. First of all, in the United States of America (U.S.A.), there are many local, state and federal accrediting agencies, because the American higher education system is decentralized and complex (Rayn, 2015; Eaton, 2012; Suskie, 2015). Second, in the United Kingdom, the Quality Assurance Agency for Higher Education (QAA) was founded to ensure the quality for all providers of higher education (Quality Assurance Agency for Higher Education, 2018). Third, in Australia, the Australian Universities Quality Agency (AUQA) was established in order to ensure the quality of higher education (McDonald, 2013). Fourth, in Japan, the National Institution for Academic Degrees and University Evaluation (NIAD-UE) is charged with evaluation and quality assurance of the Japanese higher education system (National Institution for Academic Degrees and University Evaluation, 2012).

In the case of Saudi Arabia, the quality of higher education is ensured by a government agency. This quality assurance agency is called the National Center for Academic Accreditation and Assessment (NCAAA) and is governed by the Education Evaluation Commission. NCAAA is an independent agency financially and administratively. NCAAA is responsible for quality assurance and academic accreditation in all higher education institutions that are public and private (National Commission for Academic Accreditation and Assessment NCAAA, 2015).

Statement of Problem

Recently, the importance of accreditation has been increased in higher education institutions in Saudi Arabia in order to ensure the total quality. Therefore, most of Saudi public universities and colleges work to achieve accreditation from NCAAA. According to NCAAA (2018), eleven public universities have been accredited. These universities and colleges achieved institutional accreditation as a prerequisite for attaining academic program accreditation.

Several empirical studies indicated that universities and colleges face some problems and obstacles in quality assurance issues. Oliamate and Oliamate (2014) found that the quality assurance in higher education is still weak. Also, the study of Ragad (2014) mentioned some obstacles met in quality assurance related to academic leadership, quality culture, continuous improvement, and empowerment. Hamadni and Almqari (2015) provided some obstacles that hinder quality assurance including uncertain procedures and inadequate decision-making processes. Aladadi (2012) discussed some obstacles that confront quality assurance such as insufficient financial resources and low awareness about quality assurance by academic leaders. This creates pressure on universities and colleges to employ and follow adequate procedures and processes for quality assurance.

The Purpose of the Study

The purpose of this study is to investigate the administrative procedures of total quality assurance in Saudi Public Universities.

Research Questions

To achieve the purpose of this study the following questions will be addressed:

1. What are the administrative procedures of total quality assurance at the university level?
2. What are the administrative procedures of total quality assurance at the college and supportive deanship levels?

3. What are the administrative procedures of total quality assurance at the academic department levels?

Literature Review

This section presents a review of the literature that relates to this study. It includes three themes: the concept of total quality, total quality in higher education, and total quality assurance in higher education.

The Concept of Total Quality

The concept of total quality in practice has its roots in ancient civilizations located in Egypt, Greece, and China. Throughout history, total quality was an essential aspect of operations and production. In the early twentieth century, the contribution of Frederick Taylor led to a new approach in management by focusing on quality of production and eliminating the errors and defects (Kemp, 2006; Evans & Lindsay, 2017). Then, the total quality movement was high in demand after World War II, as it had been established in the manufacturing sector. During the second half of the twentieth century a significant body of literature and knowledge emerged on total quality by several scholars and experts including Deming, Juran, Crosby, Feigenbam, and Isikawa. Thus, the total quality concept was applied to education, healthcare, governments, and other profit organizations. Total quality has been an important concept for services, processes, operations data, and products (Defeo, 2017; Sallis, 2005).

There is a critical argument between scholars and practitioners to define quality. Thus, total quality has many different definitions. In this regard, Evans and Lindsay (2017) emphasized that “it is important to understand the various perspectives from which quality is viewed” (p. 7). Crosby (1979) pointed out that total quality includes defect avoidances in processes, services, and outcomes. Juran and Gryna (1993) stated that total quality can be seen as the entire collection of activities through fitness for use, no matter where these activities are performed. Harvey and Green (1993) defined total quality as “exceptional as perfection, as fitness for purpose, as value for money, and as transformation” (p. 9). Total quality definitions can be confusing, allowing for many different ways of defining it, as Evans and Lindsay

(2017) stated six different perspectives: “transcendent, product, value, user, manufacturing, and customer” (p. 7).

The principles of total quality have been developed by philosophers around the world. They provided their insights and thoughts to produce a foundation of knowledge for total quality. The prior and most notable individual was Edwards Deming. He created his principles based on four essential elements: system theory, variation theory, knowledge theory, and psychology. To apply the total quality successfully in any organization, Deming provided 14 principles: 1) managing commitment and creating a vision; 2) learn the new philosophy; 3) understand the inspection; 4) stop to make decisions based on the cost; 5) improve constantly; 6) institute training; 7) institute leadership; 8) drive out fear; 9) optimize team efforts; 10) eliminate exhortations; 11) management by objectives; 12) remove barriers to pride in workmanship; 13) encourage education and self-improvement; and 14) take action (Deming, 1986).

The second philosopher who contributed to total quality concept was Joseph Juran. He wrote his book called *Basic Concepts: Quality Control Handbook* which has been published in its ninth edition. He stated that the total quality has multiple meanings it refers to “the feature of products and freedom of deficiencies” (Juran & Godfrey, 1999, pp. 2-3). More recently, Juran defined total quality for the twenty first century as “a set of universal methods that any organization, whether a business, an agency, a university, or hospital can use to attain superior results by designing, continuously improving, and ensuring that all product services, and processes meet customer and stakeholder needs” (Defeo, 2017: 33). Juran developed managerial principles according to three concepts: managerial process, statistics, and technology. His total quality approach included three quality processes: “quality planning, quality control, and quality improvement” (Defeo, 2017: 3). To manage quality Juran recommended that the organization must establish a vision, goals, policies, strategic plan, and comprehensive managerial processes (Defeo, 2017).

Another famous philosopher was Philip Crosby. In his book *Quality is Free: The Art of Making Quality Certain* focused on quality improvement approaches. He defined quality as conformance to requirements. His approach includes: identifying the problem, doing it right the first time, performance measurement, and the performance

standard allows zero defects. Crosby pointed out that the basic total quality improvement needs basic principles including: determination, education, and implementation (Crosby, 1979). Crosby's approach "is primarily behavioral and fits well within existing organizational structures" (Evans & Dean, 2003: 57).

Additionally, Feigenbaum provided the concept of the total quality control throughout all processes of the organization. He established a quality system by providing managerial and technical procedures that will ensure quality of the products and services and in turn ensure customers' needs are met and satisfied (Feigenbaum, 1991). He defined a total quality control approach as "an effective system for integrating the quality development, quality maintenance, and quality improvement efforts of the various groups in an organization" (Feigenbaum, 1991: 6).

Total Quality in Higher Education

Recently, the total quality movement has been more essential and global issue in higher education institutions (Harvey & Green, 1993; Nair, Webster, & Mertovo, 2010; Sallis, 2005). Thus, most of the colleges and universities around the world realize the advantages of total quality and in turn take action in order to tackle the quality of their education. Philips and Kinser (2018) emphasized the needs for total quality in higher education because "the quality of education will enrich society and the individuals within it. A quality institution offers such education and also itself grows-not in size, not in wealth, but in capacity and efficiency" (p. 15). Increasingly, the need for change and improvement in higher education have been urgent and necessary.

In higher education institutions, total quality is important for reasons including: competition issues, growing number of students, changing needs and expectations of stakeholders, financial challenges, the concept of public accountability, public cost and government funding, and institutional effectiveness (Mukhopadhyay, 2016; Nair et al., 2010). Additionally, Ruben (1995) added some reasons including the needs for increasing faculty accountability and productivity, the lack of community services, and the gap between research, learning, and practice. Adopting total quality in higher education institutions aims to

address the issues: increasing the role of higher education in social and economic changes, growing the number of higher education institutions, and increasing the accessibility and availability of higher education (Srikanthan, 1999). Clearly, all these issues and reasons have encouraged universities and colleges to actively seek total quality and see it in action.

Total quality is employed in the higher education as a tool to achieve continuous improvement. In fact, higher education institutions began to incorporate the body of knowledge developed by Deming, Juran, Crosby, Feigenbaum, and Baldrige to enrich the quality and improvement. This provides academic leaders and faculty with opportunity to establish models and approaches for quality improvement of academic programs and research (Dew and Nearing, 2004).

A body of related literature includes some approaches for total quality in higher education. Harvey and Green (1993) provided five comprehensive approaches. The first approach is *quality as exceptional*, which means quality as distinctive, as embodied in excellence, and as a required standard. The second approach is *quality as consistency* or *perfection* that focuses on process and functions in order to achieve zero defects and perform the things right first time. The third approach is *quality as fitness for purpose* that means the extent to which the services and outcomes relate and fit the identified purpose. The fourth approach is *quality as value for money*. It relates to cost, competition, investment, and funding. The last approach is *quality as transformation*. It indicates that the quality is related to the concept of qualitative change.

According to Srikanthan and Dalrymple (2003), there are specific approaches for total quality in higher education such as the transformative model, engagement model, learning model, and responsive university model. Clearly, these approaches and models of quality underscore the quality of products and services provided by universities and colleges in three major functions that are teaching and learning, research, and community service.

More recently, Malcolm Baldrige established his approach by integrating total quality principles and management practice and performance. Baldrige's approach is called the criteria for performance excellence. This approach is built upon a set of seven core concepts: 1) leadership; 2) strategic planning; 3) customers, stakeholders and

market focus; 4) measurement, analysis, and knowledge management; 5) human resources focus; 6) process management; and 7) organization performance results (Brown, 2014). Baldrige provided an excellent total quality approach that helps assess and measure the improvement of the higher education institutions. More specifically, “the Baldrige criteria for education, first published in 1999 provide a comprehensive structure for educational institutions to align their mission, vision, values, and goals with the resources essential for long-term improvement effort” (Sorensen, Furst-Bowe, & Moen, 2005: 2).

Leadership is recognized and conceptualized by philosophers and scholars as an important factor for total quality (Crosby, 1979; Deming, 1986; Feigenbaum, 1991; Juran, & Godfrey 1999). The higher education institutions always strive to achieve an academic excellence and total quality as valuable goals (Freed, Klugman, & Fife, 1997). To achieve these goals, academic leaders must address institutional performance, governance, and students’ and stakeholders’ expectations (Sorensen et al., 2005).

Total Quality Assurance in Higher Education

Total quality assurance has been considered as an essential issue in higher education institutions. Sallis (2005) stated that total quality assurance is “about designing quality into process to attempt to ensure that the product is produced to predetermined specification” (p. 17). Total quality assurance in higher education can be defined as “the system and processes to ensure higher education quality” (Suskie, 2015: 12). More precisely, total quality assurance is “about ensuring that standards are specified and met consistently for product or service” (Ellis & Hograd, 2019: 3). In fact, total quality assurance in higher education addresses several concepts of quality such as academic excellence, value, consistency, and reaching the expectations and needs of stakeholders.

Total quality assurance in higher education was discussed in the literature worldwide. Total quality assurance in higher education “tends to focus more on the production environment or processes to produce services or product. Quality assurance assesses the subject in the production process over time.” (National Institution for Academic

Degree and University Evaluation, 2012: 7) Clearly, total quality assurance focuses on three points: sustaining the quality of higher education, increasing the quality of higher education, and continuous by checking the quality of higher education.

Quality assurance is a system and evaluation process to achieve quality products and continuous improvement. Establishing such system requires quality standards. In Saudi Arabia, the National Commission of Academic Accreditation and Assessment (NCAAA) has established a set of standards for quality assurance in higher education. The old version of these standards included eleven broad standards: “1) mission, goals, and objectives; 2) governance and administration; 3) management of quality assurance and improvement; 4) learning and teaching; 5) student administration and support services; 6) learning resources; 7) facilities and equipment; 8) financial planning and management; 9) employment process; 10) research; and 11) relationship with community” (NCAAA, 2015: 1). Recently, the NCAAA (2018) reviewed and developed a new quality assurance. The new standards are eight: “1) mission, vision, and strategic planning; 2) governance, leadership, and management; 3) teaching and learning; 4) students; 5) faculty and staff; 6) institutional resources; 7) research and innovation; and 8) community partnership”. (p. 2). These eight quality standards are more concentrated and this is why were used in this study rather than the older version.

The higher education system in Saudi Arabia is a centralized system, because the Ministry of Education administers all universities and colleges in the whole country. The Ministry of Education is led by a minister and vice ministers. They are responsible to provide support, allocate capital and human resources, and approve academic policies for all higher education institutions (Al- Salloom, 1995). Each university has a committee who works with the university president and vice president to manage the university. The committee is responsible to guide the university based on policies of the Ministry of Education.

The Saudi Arabia government established colleges before 1975 in the western region and in the Saudi capital. The first established university is King Saud University in Riyadh that was created in 1977. After that many universities were established. More notable, in the last two decades, the number of higher education institutions in Saudi Arabia has grown rapidly. This is becoming a key issue as the country

enters the twenty-first century. According to the General Authority for Statistics (2018) there are 28 public universities in Saudi Arabia. In fact, the total quality of higher education has been a concern of the government to ensure quality of academic programs, quality of the faculty and staff, the use of quality resources, and quality of processes and services. This will assist universities and colleges to achieve the institutional accreditation, which enables these institutions be successful and competitive.

Methodology

This section presents the methodology of the study. It describes the research design, the sample of the study, the type of data, the data collection procedures, and the data analysis.

Research Design

This study is a descriptive qualitative research design in nature. The qualitative research is an “effort to understand situations in their uniqueness as a part of a particular context and the interactions there” (Patton, 2002: 1). Specifically, the qualitative research “focuses on meaning in context” (Merriam & Tisdell, 2016: 2), and uses “nonnumerical data such as words and pictures” (Johnson & Christensen, 2008: 388). Therefore, the qualitative research usually provides a rich description for phenomena that has been studied (Johnson & Christensen, 2008; Merriam, 2016). Since the purpose of this study aimed to describe the administrative procedures of total quality assurance in the universities, the documentary research design is particularly appropriate. Documentary research design “focuses on analyzing and interpreting recorded material to learn about human behavior” (Ary, Jacobs, Sorensen, & Razavieh, 2010: 29). Documentary research is valuable in order to study the visible phenomena and its dynamic situation (Cohen, Manion, & Morrison, 2007).

Study Sample

The sampling technique used in this qualitative study was a purposive and nonrandom sample. “In purposeful sampling, researchers intentionally select individuals and sites to learn or understand the central phenomenon” (Creswell, 2012: 206). The purposive nonrandom sampling is used in this qualitative study “because it seeks to obtain insights into particular practices that exist within a specific location, context, and time” (Gray, 2009: 180). More specifically, this purposive sampling technique is categorized as comprehensive sampling, which means that all individuals, groups, settings and unites are examined in the research (Patton, 2002). Thus, the researcher selected nine Saudi public universities that were accredited by the National Commission for Academic Accreditation and Assessment until February 2019. These selected universities were: King Abdulaziz University, Imam Abdulrahman bin Fasal University, Islamic University Madinah, Majmaah University, King Khalid University, King Saud University, King Fahd University for Petroleum and Minerals, Najran University, and Taibah University. These universities were selected as a purposeful sample of this study from which to acquire data.

The Type of Data

The type qualitative data used in this study were documents. Written documents are used in qualitative research as data sources to obtain a deep understanding of the phenomena under study. “These sources provide valuable information in helping researchers understand central phenomena” (Creswell, 2012: 223). The documents also “are stable sources of data and can help ground a study in its context” (Ary et al., 2010: 443). The documents include planning documents, organizational documents, policy documents, reports and statistic documents, formal record documents, prospectus and directory documents. These documents are considered as primary sources of the data. In this document analysis research design, using documents is the particularly appropriate type of data.

To ensure the validity and reliability of the documents, the researcher evaluated and judged the value of documents used in this

study by following these criteria: credibility to ensure the documents were written by universities as primary sources and contain accurate, complete and genuine information as well as insights relating to the research purpose and questions; authenticity to ensure the issues as the history of the document; and representativeness which means the documents are available in the websites of selected universities.

Data Collection Procedures

In this study, the written documents were collected to answer research questions. The data collection procedures were conducted during the academic year 2018-2019. First, the researcher identified the sample of this study from which the data will be collected. Second, the type of intended documents that will be useful were identified. Third, the researcher followed legal processes to collect the data by gathering the documents from selected universities' websites or contacting the appropriate individuals in charge of the documents to use them. Fourth, the researcher began to collect the documents such as quality guidelines, university manuals, quality handbooks, and other official documents that are related to quality procedures and activities. Fifth, the rights of collected documents were maintained. Finally, the collected documents were recorded and saved on organized files to be prepared for analysis process.

Data Analysis

The researcher used the manual analysis of qualitative data through reading the data and marking it by hand. Data from all documents were analyzed through processes that lead to answer the research questions. These processes included: 1) preparing and organizing the data for analysis; 2) initially exploring and analyzing the data through the process of color-coding; 3) by using color to code the data, general themes emerged from the initial analysis; 4) describing the characteristics of existing themes; 5) identifying the major themes and subthemes; 6) presenting the findings and constructing a narrative report to explain what was found in response to the research questions;

and 7) interpreting the findings to make sense and draw a large meaning about the phenomena.

Findings of the Study

This section presents the findings of this study. The data collected in this study were analyzed and reported in this section. The section includes three subsections that are organized around the research questions examined in this study.

The first subsection presents the findings that answer the first question of this study: what are the administrative procedures of total quality assurance at the university level? To answer this question, all data was analyzed using a color-coding system. The findings from this analysis were reported in a description of the administrative procedures of total quality assurance at the university level. In these descriptions, the themes that emerged were departmentalization, line authority, and responsibilities.

Departmentalization, as a division of the work has been considered in the organizational structure of universities. Functional departmentalization is spread throughout the universities and existed to manage the activities and procedures of total quality. For example, most universities established a vice presidency to manage the quality throughout the institution. This vice president has multiple names such as vice president for planning and development, vice president for development and quality, and vice president for development. The organizational structure including of vice president for quality also includes one or more deanships for quality and development such as dean of quality and development, dean of skills development, dean of quality and skills development, dean of quality and academic accreditation, dean of quality and academic development, dean of quality, dean of academic development, and consultants' unit. As another example, some universities established deanships only to manage the quality throughout the institution. In both examples, each deanship included a variety of units such as a quality assurance unit, a teaching and learning unit, a skills development unit, a performance assessment unit, an academic accreditation unit, an institutional accreditation unit, an academic planning and curriculum unit, a

strategic planning unit, and a development of regulations and policies unit.

The second theme includes line authority. Quality is managed by the vice president for quality and development who is responsible for everything related to the total quality and accreditation in the university. He reports directly to the president of the university. The vice president for quality established consultants' committee as experts involved on the procedures of total quality assurance at the university. Additionally, the organizational structure of the deanships of quality revealed that each deanship was managed by a dean and vice-deans and they directly reported to the vice president for quality and development. Finally, each unit in the deanship of quality was managed by a chairperson.

The responsibilities of the vice president for quality and dean of quality were clearly identified to carry out the task of quality and development. First, the vice president for quality was the foremost individual who was responsible for quality assurance system across the university. The findings of the study described the responsibilities of the vice president for quality that included: creating a quality system; establishing deanships for quality and academic development; organizing a standing committee for quality; operating the development process; improving the academic practices; increasing the quality of outcomes; supervising the deanships of quality; leading the consultants' committee; implementing a strategic plan for the university; following up on the quality assurance procedures; establishing partnerships with external organizations; providing appropriate systems for performance assessment; ensuring an effective performance; distributing the culture of quality; using quality standards; updating the organizational structures across the university; providing an annual report to the university president; recruiting the quality consultants; and preparing quality guidelines, university manuals, and a quality handbook. These responsibilities describe how total quality and academic development will be ensured at the university.

On the other hand, the dean of quality and development was the second individual in charge of this function. He worked as an assistant to the vice president for quality to ensure continuity of academic development. The findings showed multiple responsibilities for the dean of quality and development. These included, for example:

supervising the units of deanship of quality; conducting the plan for quality assurance and development; reviewing and revising academic programs; overseeing the vision and mission of the university, colleges, departments, administrations, and units across the university; following-up on the accreditation process; suggesting to establish new units and centers for quality; helping to achieve an excellence in academic process; establishing relations with local academic accreditation agency (NCAAA); provide consulting and support for colleges, units, and academic departments to implement quality standards; providing criteria and indicators for performance assessment; conducting professional development programs for faculty and staff; and providing quality reports to vice president for quality. The responsibilities of quality deans enabled them to work directly with colleges and units for reviewing and managing the procedures of total quality assurance.

The second subsection presents the findings that answer the second question of this study: what are the administrative procedures of total quality assurance at the college and supportive deanship levels? To answer this question, the data was analyzed using a color-coding system. The data analysis revealed the main themes related to the administrative procedures of total quality assurance at the colleges and supportive deanships level. These main themes were organized around departmentalization, line authority, and responsibilities.

It is most noticeable that departmentalization as division of the work has existed in the organizational structure of colleges and supportive deanships. For example, most colleges and supportive deanships established vice deanship for quality and development or established quality units. It depended on the organizational structure of each college and deanship. More specifically, a vice deanship for quality and development always included several units such as quality assurance unit, academic accreditation unit, evaluation and measurement unit, skills development unit, alumni unit, and data unit. Finally, each college and deanship established a quality assurance committee.

At the level of colleges and supportive deanships, the line authority was that, first, if the college or supportive deanship structure included a vice deanship for quality and development, the vice dean for quality and development was assigned to this task. He reported directly to the dean

of the college or deanship. On the other hand, if the college or supportive deanship structure included a quality assurance unit, a quality assurance officer was assigned to it. He also reported directly to the dean of the college or to the supportive deanship. Moreover, each unit in the vice deanship was managed by a chairperson. Lastly, the dean of the college or supportive deanship was the chairman of the quality assurance committee.

The responsibilities of the vice dean for quality and development and other quality assurance unit officers provided the basis for control and direction of quality task at colleges and supportive deanships. The findings of the study presented the responsibilities of vice deans for quality as follow: managing the total quality in the college and supportive deanship; collecting data; enhancing the quality assurance system; gathering information required for the quality assurance system; ensuring the implementation of quality standards; supporting academic departments and units to apply the quality standards; planning for institutional and academic accreditations; sustaining the culture of quality; establishing strategic plans for development; confronting the obstacles and challenges to implement the quality standards; providing reports about quality and development; conducting self-evaluations and assessments; planning for improving internal environment; obtaining academic accreditations for academic programs; planning for professional development of faculty and staff; and, improving academic performance. These responsibilities describe how the vice dean for quality and development and other quality assurance unit officers guide quality and development procedures at colleges and supportive deanships.

The last subsection provides the findings that answer the third question of this study: what are the administrative procedures of total quality assurance at the academic department levels? To answer this question, the data were analyzed using color-coding system. The findings showed the main themes related to the administrative procedures of total quality assurance at the academic department level.

A theme that consistently emerged from the data was that total quality assurance is everyone's business in the academic department. This meant that all faculty members and staff acted to implement total quality and continuous performance development. In an academic setting, the academic department was the last unit to implement the

total quality standards in order to ensure the quality of the outcomes of the academic program. The findings revealed that the organizational structure of academic department included a coordinator who was assigned by a department chairperson. Additionally, there were temporary committees formed to determine regulations and responsibilities. Examples of these temporary committees include: a self-study committee, a self-assessment committee, a quality plan committee, and an academic accreditation committee.

In academic departments, the department chair, the quality coordinator, and other faculty members have responsibilities, which cover all aspects of quality activities. These responsibilities assist in carrying out the quality standards for institutional accreditation and academic program accreditation and include: mission, vision, and strategic planning; governance, leadership and management; teaching and learning; students, faculty, and staff; institutional resources; research and innovation; and community partnership. These responsibilities reflect how total quality assurance system is managed and governed in academic departments level.

Discussion

This section provides discussion for the findings of the study in light of the related literature and past empirical studies. The discussion provides explanations of why these administrative procedures of total quality assurance are followed in Saudi public universities. The discussion focuses on various concepts that label the administrative procedures of total quality assurance. Also, the interactions between these concepts are considered for understanding total quality assurance system. In order to provide insights to the discussion, the investigator identified three concepts: structure of higher education administration, history of implementing the total quality, and competition.

The first concept is the structure of higher education administration in Saudi Arabia that is based on an administrative philosophy of centralization. In Saudi Arabia, the higher education institutions are governed by a centralized authority, which is the Ministry of Education. Thus, authority, power and responsibilities are delegated by the Ministry of Education to universities. This explanation

is supported by Al-Sallom (1995) who pointed out that in Saudi Arabia centralized authority plays a key role in organizing and managing universities. An example of this authority follows. To establish a vice presidency for development and quality, as well as a deanship of for development and quality, the university must receive approval from the Ministry of Education. This is also an explanation of how all universities have similar divisions for total quality and development in their organizational structure.

Additionally, the responsibilities and line authority are designed based on the organizational structure of the university and is approved by Ministry of Education. Therefore, this organizational structure will shape the total quality assurance system. This explanation is solidified by Standard 2 of NCAAA 2018 Standards which emphasize that the organizational structure of a university must define all divisions and sub-divisions, functions, authorities and responsibilities. All these will ensure effective and efficient procedures for a total quality assurance system. Hence, the common responsibilities and line authority for total quality and development are similar at universities with slightly differences in some particulars.

The history of implementing total quality in Saudi public universities is the second concept that offers an additional interpretation for the findings of the study. Total quality began in Saudi public universities in the last 10 years. Additionally, a quality assurance agency was established and is called the National Center for Academic Accreditation and Assessment (NCAAA). This agency is governed by the Education Evaluation Commission and was founded in 2003. The NCAAA ensures the quality system, academic and institutional accreditations in all higher education institutions, offers quality assurance standards, and conducts indicators for performance assessment (National Commission for Academic Accreditation and Assessment, 2015). According to NCAAA (2019) just eleven public universities have been accredited until February 2019, while seventeen public universities are not yet accredited. This emphasizes that implementing total quality in Saudi public universities has recently occurred.

This explanation is consistent with the related literature that emphasized that higher education institutions around the world realize the importance of total quality approach to increase the quality of

outcomes (Harvey and Green, 1993; Sallis, 2005; Nair et al., 2010). Also, Georgios, Joshi, & Paivandi (2017) emphasized that globally, higher education institutions implemented quality assurance in recent time as a decisive transformation movement. Thus, total quality as an approach to improve higher education outcomes is a contemporary trend.

Finally, competition plays an important role that influences the procedures of total quality assurance in universities. Recently, there are increased pressures from students and all stakeholders facing higher education to operate efficiently and effectively. This enhances the competition in higher education to meet contemporary changes. The goal of competition in higher education is to provide quality learning, quality research, and quality services. To be competitive, universities set standards and benchmarks to achieve the targets and fulfill students' and public's needs and expectations. This explanation may be consistent with Sorensen et al. (2005) who stated that the universities are required to focus on results, outcomes and accountability. Also, Nair et al. (2010) underscored that total quality assurance is an important function that enables university to tackle the competition factors. Therefore, universities realize that good quality performance is the key to build a good reputation and compete successfully.

Conclusion

The findings of the study described the administrative procedures of total quality assurance in Saudi Public Universities. The findings revealed that there are departmentalization and clear divisions and subdivisions for development and quality through the university. More specifically, the findings showed that all universities have similar divisions and subdivisions for total quality and development. An example of this is universities with a vice presidency for development and quality, a vice deanship for quality and development, and a quality assurance unit. Additionally, the findings of the study identified responsibilities and a clear line of authority for individuals who responsible for total quality and development at all levels of the university system.

Based on the findings of this study some implications are provided here. The academic leaders should work hard to enhance and convey

the responsibility of the culture of total quality through all administrative levels and among faculty and staff to be everyone business. Also, to achieve an excellent quality performance and continuous improvement, effective academic leadership is essential and must be taken into consideration. Finally, to be successful on implementing the total quality and development, the technology is extremely required to be used in an appropriate manner.

At the end of this study, further studies are suggested to be conducted. Studying the perceptions of academic leaders regarding the current performance of total quality would be helpful toward the improvement of the culture of total quality. Also, it can be useful to conduct another study to investigate the effectiveness of benchmark assessments of total quality in the universities. Lastly, longitudinal studies can be conducted to address the continuous improvement of the outcomes in the universities over time

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