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Quality Assurance in Sudanese Higher Education: Current Status and Challenges Ahead

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ABSTRACT

Like many higher education systems in developing countries, the higher education sector in Sudan is currently experiencing substantial challenges of enrolment expansion, brain drain among the academic staff, reduction in public funding, increased competition among higher education institutions and the increasing stakeholders' concentration on performance and accountability. Considerable efforts have been made over the past few years to develop an effective national framework for quality assurance. Part of these efforts resulted in the establishment of the Evaluation and Accreditation Commission in 2003 as a specialized authority to create and encourage a culture of quality assurance and accreditation within all Sudanese universities, and to check out that the universities are accountable and effective in delivering academic programs and services. The main goal of this article is to look at the current status of quality assurance practices and to identify challenges facing Sudanese universities as they endeavor to ensure quality of their activities and outputs. Based on detailed reviewing of quality dimensions coupled with some descriptive and inferential statistical methods, the study indicates that there is a quality gap between intended and actual quality assurance practices. Practical implications and recommendations for improved quality assurance practices at Sudanese universities are provided. The main conclusion of this article is that it is timely for policy makers of higher education in Sudan to question what has gone wrong and what has been forgotten in an attempt to put it right in their future policy priorities.

Keywords: Quality assurance, self-evaluation, accreditation, higher education institutions, Sudan

ضمان الجودة بقطاع التعليم العالي فى السودان: الوضع الراهن و تحديات المستقبل

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باحث زائر – كلية الادارة والاقتصاد بجامعة قيسن – المانيا

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المستخلص:

يواجه قطاع التعليم العالى فى السودان، كغيره فى دول العالم النامية، العديد من التحديات والتي يتمثل أهمها فى الزيادة المضطردة فى القبول بالجامعات والكليات الجامعية، الهجرة المتزايدة لأعضاء هيئة التدريس، تناقص التمويل والدعم الحكومي لهذا القطاع، تزايد حدة التنافس بين المؤسسات، تزايد التركيز والإهتمام من قبل الاطراف ذات المصلحة على نوعية مخرجات التعليم العالي. وخلال السنوات القليلة الماضية، بذلت جهوداً مقدرة

فى سبيل تطوير التعليم العالى فى السودان وتحسين جودة الأداء فى مؤسساته، توجت هذه الجهود بإنشاء الهيئة العليا للتقويم والاعتماد فى العام 2003م كجهة متخصصة بقضايا وممارسات الجودة والإعتماد الأكاديمي وذلك للتأكد من أن الجامعات والكليات الجامعية ملتزمة بالحد الذي يضمن جودة الأنشطة والمهام والمخرجات التي تضطلع بها تلك المؤسسات. تهدف هذه الدراسة إلى التعرف على واقع ممارسات ضمان الجودة والنوعية بمؤسسات التعليم العالي السودانية وتحديد أهم التحديات التي تواجه هذه المؤسسات فى سعيها نحو ضمان الجودة فى الأنشطة والمخرجات. وبناءً على مراجعة الأطر النظرية لمعايير الجودة والإعتماد الأكاديمي وبعض الاساليب الوصفية والاستدلالية، تشير الدراسة إلى وجود فجوة بين ما يتم التخطيط لتنفيذه والممارسات الراهنة بالعديد من المؤسسات، وبناءً على ذلك، تقدم الدراسة مجموعة من المقترحات والتوصيات التي من شأنها الإرتقاء بنوعية وكفاءة مخرجات نظام التعليم العالي. وخلصت الدراسة إلى أنه صار أمراً ملحاً على مخططي السياسات ومتخذي القرار بمؤسسات التعليم العالي التساؤل حول ما لم يتم أخذه في الإعتبار فى المجهودات السابقة مع ضرورة وضع ذلك فى صدر أولوياتهم عند صياغة سياسات الجودة والإعتماد الأكاديمي.

كلمات مفتاحية: *ضمان الجودة، التقييم الذاتي، الإعتماد، مؤسسات التعليم العالي، السودان*

INTRODUCTION

Over the last few decades, the issue of higher education quality has risen to the top of the policy agendas for almost all higher education institutions around the world. It has become an important global trend that has gained considerable attention from different stakeholders and customers of the higher education system, including policy makers, management of higher education institutions, accrediting organizations, government and its funding agencies, faculty and staff members, employers, students, and families. This is largely due to a global awareness of the significant impact higher education quality can play in the development processes (Meulemeester and Rochat, 1995; Brown and Heaney, 1997; Siegfried et al., 2007).

Today, more than ever before, quality of higher education is seen to be an important contributor to the production of knowledge which helps to improve the quality of labor force by providing professional, technical and managerial skills. It is widely accepted that higher education quality is a complex concept to be defined and interpreted in the sense that it has different interpretations among the stakeholders. For example, the Government mandates it; accreditation authorities require it; the ordinary people anticipate it, and teaching staff needs it (McKenzie et al., 2003).

The increasing trend and concern to ensure and enhance quality in higher education institutions have been driven by several internal and external factors. These include: the effect of dynamic competitiveness, the movability of professional labor, reduction in the public funding received, the higher accountability demands by public institutions, the rapid university sector expansion, the employers' pressure for university programs to become very close to the needs of the work-place, and the technological advancements which have created significant increases in different forms of education providers (distance education, twinning arrangements, virtual universities) among others (Blackmore, 2009; Ward, 2003).

It is worth mentioning that quality assurance is not a new idea in the context of higher education (Harman, 1994). For many decades, great deal of higher education institutions have had a wide variety of review and assessment mechanisms, (e.g., departmental reviews and program reviews), but the range of jargon and methodologies of quality assurance which are currently used are relatively recent. The

discussion of the central role of service quality in higher education institutions has been the center of attraction of many empirical studies worldwide (e.g., Troutt, 1979; Neave, 1988; Woodhouse, 1996; Vidovich and Porter, 1999; Brown, 2000; Van Damme, 2000; Harvey, 2005; Raharjo et al. 2007; Irakl, 2008; Rawazik and Carroll, 2009; Stukalina, 2010; Mangnale and Rajasekhara, 2011; and Stukalina, 2012). The debate among researchers and educational experts about higher education quality has focused on a wide variety of issues like the frameworks of quality management(Owlia and Aspinwall, 1996; Crawford and Shutler, 1999), the dimensions of quality (Rowley, 1997; Rodgers and Ghosh, 2001), problems related to the quality implementation (Roffe, 1998), and customer satisfaction (Aldridge and Rowley, 1998). Current debate on quality assurance concentrates, to a great extent, on the driving factors behind quality improvement and enhancement.

It is worth mentioning that there is no universal agreement on quality definition and management within higher education sector. In fact, a wide range of perceptions are available on the meaning of quality assurance in higher education. In this regard, Tam (2001) indicates that "For a better understanding of quality, it is very important to recognize that it has disagreeing meanings that may lead to various assessment tools and accordingly different practical outcomes". Theoretical literature provides a large number of diverse definitions, each one characterizing a different point of view (see for example, Lindsay, 1992 and Birnbaum, 1994).

Essentially, quality assurance in higher education indicates systematic management and assessment techniques applied to achieve certain levels of quality, and to allow the stakeholders to have confidence in the final outcomes (Harman, 1998). In discussing quality in higher education sector, Harvey and Green (1993) introduce a structural development of quality including five ways of thinking about quality, (a) Quality as exceptional which meaning something special or exceptional, (b) Quality as accomplishment indicating that all specifications are successfully done, (c) Quality as fitness for purpose meaning that the customers' requirements are completely met, (d) Quality as value for money indicating that it is associated with the levels of specifications and is strongly linked to the costs, (e) Quality as transformation which means that the process must provide a crucial change that involves authorization for actions taking to enhance the of customers' satisfaction.

Another difficulty to manage and conceptualize quality assurance in higher education sector is that the definition of customers in higher education sector is quite different from the other aspects, like industry, which result in an additional complications to the concept in the sense that the customer regularly requires to be involved actively in service production and such involvement needs to be supported and guided (Eiglier and Langeard, 1993). Thus, it is very necessary for academic institutions to catch what factors are really increasing the stakeholders' satisfaction (Gronroos, 1990).

Nowadays, the need for effective quality management systems within higher education institutions are becoming the priority topics in national higher education strategies for almost all countries throughout the world, especially under the current global trend of moving towards mass higher education which associated with growing number and size of institutions and the diversity of programs delivered. Hence, concerted efforts have been undertaken to assess and improve higher education quality; some of these efforts have led to establishing local, national, and international organizations to have some control on the work of higher education institutions. According to these organizations, the quality assurance activities are possibly conducted for various interrelated objectives, including (1) ensuring that the institutions and their academic programs are fully meeting the requirements and

standards, (2) to act as basis for assigning accreditations at institutional and program levels, (3) for closing down sub-standard programs, and (4) to act as the main reference for various stakeholders about the quality of institutions (Langfeldt et al., 2010).

The main purpose of this article is to evaluate the status-quo of quality assurance practices within the Sudanese higher education institutions by describing policies and to evaluate their impacts on improving the quality of education provided. Focus is also given to identify challenges facing Sudan's higher education institutions while ensuring quality of the institutions' outputs and therefore, recommending future quality aspects to improve and enhance sustainable quality assurance culture. The study is descriptive-analytical in nature; it uses perceptions and viewpoints of major stakeholders about the overall policy of quality assurance and the current practices within universities coupled with employing the documentary analysis for a better understanding. The rest of this article is structured as follows. Section 2 focuses on the study motivation and significance. Section 3 gives some background information about higher education in Sudan. Section 4 introduces the quality assurance context and trends in Sudan by focusing on core areas of quality assurance practices, including: teaching loads, the student-faculty ratio and the quality of education, academic staff recruitment and training, strategic planning, the brain drain phenomenon, research productivity, students' perceptions about the performance of higher education institutions and the rankings of Sudanese universities. Finally, section 5 concludes and provides recommendations and suggestions for future research.

MOTIVATION AND SIGNIFICANCE

Throughout the world, higher education quality has become one of the most important policy themes and has experienced major developments internationally. Higher education institutions in developed countries have had a prolonged history of practices to improve the quality of their activities and services. On the other hand, higher education institutions in many developing nations, like Sudan, are currently trying to achieve some successes in its application by considering different mechanisms which have been imported from the developed countries (Lim, 2001; Lenn, 2004; Jonathan, 2000).

For the higher education sector in Sudan, the planned and systematic approaches to ensure and enhance quality of education system are a relatively new concept; it has recently become one of the most notable topics of discussions among higher education policy makers. For some time, there is an increasing recognition among policy makers in higher education sector for the need to adopt changes in the educational processes by developing a quality assurance framework that can be implemented by all Sudanese universities and colleges to significantly improve the quality of education and stay healthy in the business of education, especially after the significant increase of the demand for university education during the last few years. Many external and internal factors have contributed to the need for such framework, including: enrolment expansion, reduction in the public fund received, increased competition among higher education institutions, increasing concentration of stakeholders' accountability, the growing availability of alternate providers of higher education, and the growing complexity of knowledge.

In 1990, the government of Sudan started to take on policies that were encouraging mass higher education to amend past imbalances. The adopted policies have not only created significant increases in enrolment rates, but also lead to increased opening of many new public and private universities with the associated diversification in

structures and systems, curriculum and teaching strategies and management styles. This has furthermore given rise to a variety of styles of education delivery such as open, distance and online education.

These forces pose critical challenges for the institutional effectiveness and make the institutions in Sudan to work under growing pressure to launch and initiate systems for quality management in order to convince major stakeholders that they are doing efficient tasks regarding quality assurance.

To deal with such critical challenges, the national framework for Sudan's higher education needs to be changed to keep pace with the higher rate of quality assurance demand. Consequently, higher education policy makers in Sudan have made considerable efforts during the last few years to develop sets of principles, guidelines and benchmarks through an effective national framework for quality assurance implementation in Sudanese universities. Part of these efforts have resulted in establishing the Evaluation and Accreditation Commission (EVAC) in 2003 under umbrella of Higher Education Ministry as a specialized authority to introduce the culture of quality management within universities and colleges, and to check out that they are accountable and effective in delivering programs and services.

During the ten years of its performance, EVAC has developed a model for assessment and accreditation that suits the Sudanese context and that can be used to move the country towards the knowledge economy. Since that time, many public and private universities in Sudan started to create their own quality assurance models and to formulate their strategic plans to ensure quality in all activities which include: teaching staff services, administration of academic programs, scientific research and its related issues, students' services, equipment and laboratories, and community services, among others.

Under such circumstances, it has become necessary for the different stakeholders and customers of higher education sector in Sudan to have empirical evidences that universities and colleges are truly monitor the quality of their activities. To this end, this study intends to shed a light on the status-quo of higher education quality in Sudan. This study may prove significant to institutional leaders and policy makers as well as for other stakeholders, it represents a first attempt in terms of its focus, to the best of author's knowledge, on policies and implementations as perceived by the major groups of stakeholders of Sudan's higher education sector. Of course, a research project of this nature may assist in providing a clear picture on what is going on. The study will therefore, represents a significant contribution in different aspects. First, it can help to bridge the existing gap in the empirical literature focusing on Sudan's case. Second, it may also provide information to decision-makers and policy planners to help them in their efforts to improve the efficiency of Sudan's higher education sector. Third, it can help to raise the awareness of the major stakeholders regarding the challenges facing higher education institutions in Sudan while implementing policies to ensure quality of education. Finally, it may serve as an inspiration and reference for the next generation of researchers who may be interested in such type of research topics.

AN OVERVIEW OF SUDAN's HIGHER EDUCATION SECTOR

The history of Sudan's higher education dates back to 1902 when Gordon Memorial College was established during the time of British colonial rule. Later on the college renamed as the University of Khartoum. In 1912, a new scientific institute was launched to provide religious education. In 1920, the study began in a higher

department within this institute and by 1963, the department was promoted to university college then to Omdurman Islamic University in 1965 (Ministry of Higher Education, 2014). Significant development of higher education was made by establishing some technical institutes including the Health Faculty in 1933, Radiology Institute in 1936, Forestry College (Optical Institute) in 1954 and Agricultural Institute (Shambat) in 1954. By 1956, the Khartoum University College started to work independently and renamed as the University of Khartoum which was the first public higher education in Sudan. A branch of Cairo University was launched in 1955 owing to the bilateral relationships between Sudan and Egypt (Currently working under the name of Alneelain University). The year 1950 witnessed the birth of Khartoum Technical Institute which upgraded to university in 1990 (Sudan University of Science and technology). A significant transformation in Sudanese higher education has taken place during 1970s. In 1975, the University of Gezira and the University of Joba were established as the first public higher education institutions outside the capital. During this period, a number of institutes where established owing to the assistance provided by the World Bank. These include, Agricultural Institute in Abuharaz, Agricultural Institute in Abunama, and Atbara Mechanical Engineering College.

Since 1990 higher education system in Sudan has undergone significant expansion both in number of students and number of new public and private universities. During this period, Arabization of study in university stage was approved.

Sudan's Higher education sector is currently rolling by the National Council which takes the responsibility for policy formulation and implementation of higher education and scientific research. The key objectives of this council include: determination of admission policies; specification of minimum qualifications for faculty and researchers recruitment; providing the approval of new private institutions; and the evaluation of performance of higher education and research institutions, among others.

THE QUALITY ASSURANCE CONTEXT AND TRENDS IN SUDAN

The dramatic expansion of higher education in Sudan (both in terms of student enrolment increase and the mushrooming of new universities, especially private ones) coupled with the limited funds available, inadequate infrastructure, lack of facilities and up-to-date laboratory and instructional materials have posed substantial challenges for both public and private universities in their attempts to realize the quality assurance. This situation has led the universities to operate in overcrowded physical facilities.

A closer look at the current status of most Sudanese universities reveals that they do not have appropriate physical facilities such as class rooms and lecture halls, laboratory and library areas and rooms to secure convenient learning environment. Some universities such as Alneelain University, the University of Khartoum, Sudan University of Science and Technology have reached or even exceed their optimum capacity. Further enrolment increases may cause diminishing returns. This abnormal situation has necessitated the existence of effective quality management system.

The regulatory basis for higher education quality in Sudan is a relatively fresh phenomenon. It only started in 2003 when the Evaluation and Accreditation Corporation (EVAC) has been established to take responsibility for guiding and regulating Sudan's higher education quality. In June 2008, EVAC set up a general framework consisting of nine focal areas. These areas include: institutional framework, governance and administration, infrastructure and services, human resources, students and graduates, teaching and learning resources, scientific research

and graduate studies, community services, and quality management. Each higher education institution is expected to undertake its own institutional and programs self-evaluation based on these areas and on self-evaluation manual provided by EVAC.

But when it comes to look at the adoption of these policies, it is very obvious that the universities are not doing what they are required to do as enshrined in policies and laws in terms of quality enhancement. This shows a gap between policy intentions and actual practices. Also, they lack follow up. It is worth mentioning that the internal quality management systems of many universities are not compatible with the good practice in the sense that many concepts of quality assurance are missing. For example, a closer look reveals that the universities focusing on only portion of the standards established by EVAC and leaving out many of important standards out their concern. This situation leads to the fact that no higher education institution in Sudan has been qualified to institutional or program accreditation. And, because most of quality and accreditation policies are optional (not enforced by EVAC), the majority of higher education institutions do not spend considerable efforts to implement effective and continuous self-evaluation at both institutional and program levels.

Of course, the shortage of facilities and staffing to run the quality assurance programs, absence of a supportive professional quality culture, and lack of funds represent the major hindrances for the practice of quality assurance in Sudan's higher education sector. Government policies regarding expanding enrolment and establishing new institutions without adequate preparation and planning are also major constraints for quality assurance practice. Expanding and opening programs, especially within the areas of medicine, science and technology without ensuring the minimum resource requirements (infrastructure, qualified staff, labs, equipment and machineries) would obviously hinder the attempts to develop effective quality management system.

The rest of this section focuses on the core areas of quality assurance practices, including: teaching loads, the student-faculty ratio and the quality of education, academic staff recruitment and training, strategic planning, the brain drain phenomenon, research productivity, students' perceptions of university overall performance and the rankings of Sudanese universities.

Teaching loads: Theoretically, the typical expectation of full-time faculty members is distributed between teaching, research service, and professional and administrative duties. In order for the faculty teaching loads to be optimal ones that lead to deliver high quality teaching, it is generally accepted that the faculty member teaching work per week should be distributed as: 6 hours for full Professors, 9 hrs for Assoc. Professors, 12 hrs for Asst. Professors, and 14 hrs for the Lect. But, the practices within the majority of Sudanese universities show that the current trends of time devoted to teaching-related activities is very high and deviated far a long from the policies established by the universities. This abnormal situation can be explained to some extent by two reasons. First, the very rapid increase in the enrollment rates over the last few years coupled with insufficient number of teaching staff to meet the current teaching obligations. Second, low salary scales and poor working conditions especially in the public universities which have led many faculty members to look for an additional teaching activities by taking the form of adjunct teaching at private universities and colleges where they pay very well for teaching work. Accordingly, the majority of current teaching staff allocate most of the time on teaching and its related activities in their public universities as well as in private ones and leaving research productivity commitments out of their concerns. The overall impact of this trend may result in substantial decrease in the quality of the delivered teaching as well as the quality of research produced.

Student-faculty ratio and the quality of education: One of the major crucial issues facing Sudan's higher education institutions is the number of students per faculty staff. According to recent statistics, the student-faculty ratio is around 42:1. This ratio is far away from the international standard and also well above the ratio in some of countries in the region (Figure 1).

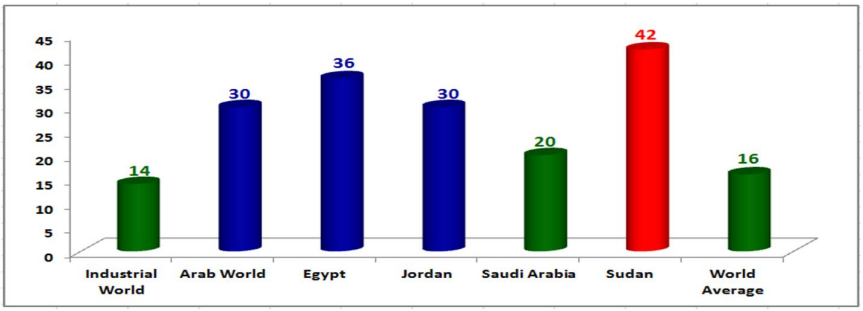

Figure 1: Students-faculty ratio in selected countries and regions

Source: UNESCO Institute for Statistics

There are however extreme variations among Sudanese universities (Table 1). Considerable variations are also observed across disciplines (Figure 2). The higher student-faculty ratio and the overcrowded classes have adversely affect the quality of the educational experience along with student performance, students' level of active involvement in teaching processes, and impacts upon the students' ability to gain strong problem solving and critical thinking skills. This has exacerbates the problem of inefficiency in higher education.

Table 1: Students-faculty ratio across Sudanese universities

No.	University	Ratio	No.	University	Ratio
1	University of Khartoum	28	20	University of Kordofan	44
2	Omdurman Islamic University	56	21	Dalanj University	33
3	Sudan University of Science and Technology	53	22	University of West Kordofan	23
4	University of Gezira	27	23	Peace University	43
5	University of Science and Technology	44	24	Al Fashir University	69
6	University of the Holy Quran and Islamic Sciences	35	25	University of Nyala	43
7	University of the Holy Qura'n and Taseel of Sciences	69	26	University of Zalingei	34
8	Al-Neelain University	69	27	University of Sennar	36
9	Al Zaiem Alazhari University	20	28	Karary University	50
10	University of Medical Sciences and Technology	15	29	Open University of Sudan	703
11	El Imam El Mahdi University	30	30	International University of Africa	24
12	University of Bakht Al-Ruda	42	31	National Ribat University	65
13	Blue Nile University	47	32	Ahfad University for Women	29
14	University of Kassala	34	33	Omdurman Ahlia University	59
15	Red Sea University	43	34	Sudan International University	69
16	University of Al Qadarif	56	35	University of Bahri	10
17	Nile Valley University	49	36	Albutan University	11
18	University of Dongola	26	37	Future University of Sudan	27
19	University of Shendi	26	38	AlMughtaribeen University	24

Source: Author calculations based on the statistics from the Ministry of Higher Education and Scientific Research

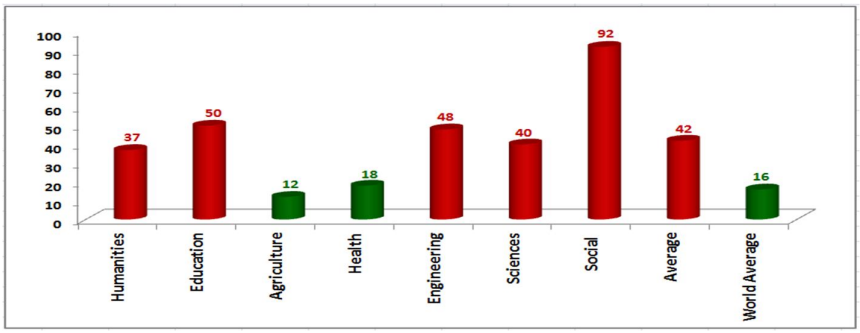

Figure 2: Students-faculty ratio in Sudanese universities by specialization
Source: Ministry of Higher Education in Sudan

Academic staff recruitment and training: Most of Sudanese higher education institutions have good general frameworks of regulations and policies to recruit faculty members and teaching assistants. The policies established by most universities usually aim at recruiting academic staff with the best possible skills and potential for the duties of the academic positions. Besides documented qualifications in teaching and research, demonstrated development and future potential are taken into consideration in decisions on whom to appoint. Part of these policies and regulations require that the applicant for academic staff position should graduate with either a first class honors or upper second (2:1) bachelor degree in a relevant discipline from a respected university and also this includes that applicant should pass successfully all undergraduate courses, among others. But when it comes to the actual practices, evidences show that some higher education institutions do not adhere to their policies and regulations by selecting faculty members who do not pass the minimal academic requirements. For example, in some universities there are many faculty members with lower second class (2:2) and some even with third class and surprisingly there are some who got F (fail) score in some of the undergraduate courses. This is coupled with unfair competition between applicants, hiring new staff without placing the job announcements to be reached by all applicants equally, and without developing clear screening criteria for candidates.

As for faculty staff training programs, most of higher education institutions do not pay much attention to develop and support strategic exchange partnership with abroad universities to facilitate the internationalization of their faculty. And for the available limited training programs, it can be noted that the current practice do not provide appropriate equal opportunities and diversity awareness training for staff which has negatively affected internationalization of academic staff. In many cases, the training programs are approved to help only limited university leaders and college deans leaving large part of faculty out of their concerns.

Strategic planning: In higher education literature, it is generally accepted that a strategic planning is the only way higher education institutions should follow to effectively cope with the diverse challenges facing these institutions. Higher education institutions engage in strategic planning by addressing its current and past performance based on careful environment analysis and addressing where the institution wants to stake out a future position in higher education industry and addressing the resources and capabilities that the institution needs to create or build to execute its selected strategies to achieve the staked out position and the outcomes that it intends to achieve. A common starting point for a better formulation of a strategic plan is the identification of the vision, mission, goals and values statements. Once these elements are precisely identified, then the institution should moves on to run a

wide range of analyses including, just for example: SWOT Analysis. These types of analyses provide better understanding of the institution's environment and therefore, provide the general framework for the development of institution's strategic goals, action plans, and tactics.

When it comes to look at the practice of strategic planning in Sudanese universities, it is very obvious that the majority of them do not engage in this important activity. For example, a quick look into most websites of Sudanese universities reveals that they lack identification of the most important elements of strategic planning which include mission and vision statements, goals and objectives, and values statements at both college and departmental levels as well as for administrative units. This is coupled with the absence of effective assessments to identify the main areas of weaknesses and strengths, the potential opportunities and threats they may face in the immediate and foreseeable future. Of course, this abnormal situation may lead to serious difficulties for higher education institutions to appropriately adapt to the rapidly changing higher education environment. One form of this is that the university will not be able to effectively assign resources to increase stakeholders' satisfaction. In such situation, the university will fail to create the necessary framework for its long-term strategic goals and therefore it will fail in achieving competitive advantage in higher education industry. Most of Sudanese universities do not analyze their external and internal environments and there seems to be little evidence that Sudanese universities are currently embarking on appropriate self-evaluate mechanisms to analyze the gap between the real situation and the desired future. On top of that, systematic and fruitful benchmarking is also lost in several Sudanese universities.

The brain drain phenomenon: One of the most critical problems facing Sudanese universities is the problem of brain drain of highly qualified faculty staff. In recent years, statistics show an increasing trend of teaching staff leaving the country to join universities and business industry in the Arab countries, especially in the Gulf Cooperation Council (GCC) region. Based on sample investigation, the reasons why faculty are leaving Sudanese higher education institutions appear to be diverse, ranging from professional to economical. Poor pay and wage differentials, quality of life, poor educational environment for their children, lack of research funding, and lack of academic freedom represent the main factors for this migration. Some faculty staff complain of lack of time to concentrate on research because of undergraduate teaching commitments. In addition to that, the harsh economic condition in Sudan (see Figure 3 in the appendix) during the past few years especially after the South Sudan's secession in July 2011 is also has something to do with this kind of migration.

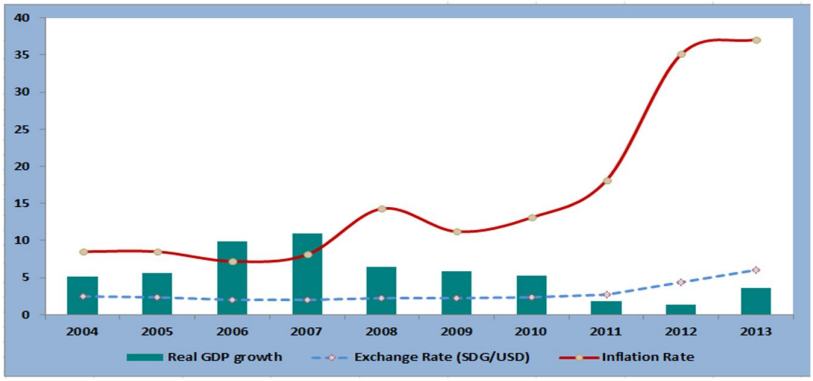

Figure 3: Selected macroeconomic variables for Sudan (2004-2013)

Source: Compiled by the author based on data from Central Bank of Sudan

Generally, the major reason why Sudanese university lecturers migrate can be well explained by economic factors. For example, a simple comparison between salary scale for faculty in Sudan and Saudi Arabia as shown in Figure 4 reveals huge wage differentials. It is very clear, for instance, that full professors in Saudi Arabia earn over 4000 USD which is about six times the Sudanese equivalent. In such critical situations, university lecturers are forced to start looking for additional working hours outside their universities. Such additional works usually take form of either part-time positions at other institutions (usually private university colleges) or positions with business industry. With the declining aggregate economic activity and with an increasing demand of neighboring countries (especially, Saudi Arabia) to recruit Sudanese university lecturers, the situation has getting out of control. It is very important to indicate that high salaries, better living conditions and professional research opportunities in Saudi Arabi have motivated most of Sudanese university lectures to leave their universities. Formal statistics show that 800, 1300, and 2000 have already left the county to join many Saudi universities during the years 2012, 2013, and 2014 respectively.

Without any doubt, brain drain can be considered as one of the greatest obstacles to social and economic development. Massive migration of Sudanese professionals has led the country to lose the value of its investment in education because of such large numbers of highly trained Sudanese faculty staff and also led to decline in research productivity that address many problems related to the country's development. The overall impact of this phenomenon is a significant deterioration of higher education quality.

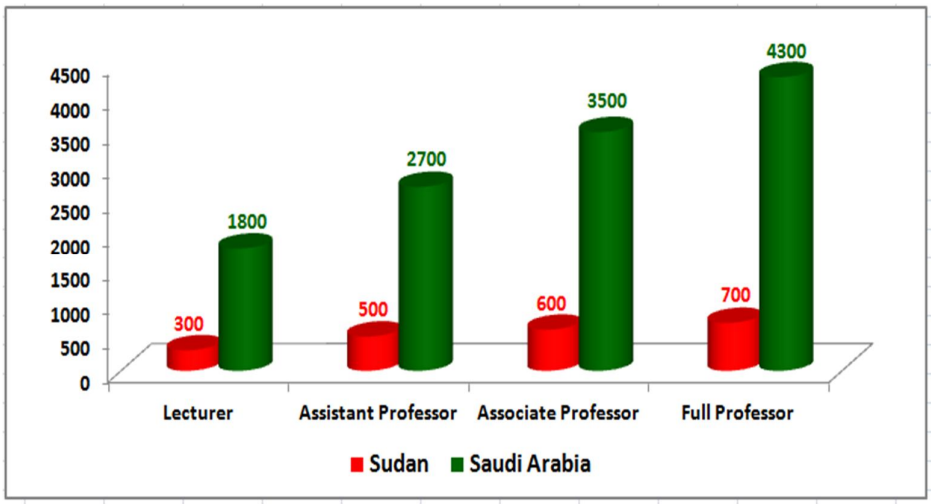

Figure 4: Average salary of University lecturers in Sudan and Saudi Arabia (Monthly USD)

Source: Interviews with Sudanese faculty in Sudan and Saudi Arabia

Research productivity: It is a common fact that research productivity represents a useful tool to appropriately address the development challenges everywhere. Universities across the world are the main providers of knowledge through research. For the developing countries in Africa, the literature tells that the share of research productivity falls far lower than what has been experienced in other parts of the world (see for example, Yonge et al., 2005; Muula, 2007; UNESCO, 2010).

For the Sudanese higher education institutions, research productivity (as indicated by published articles and their citations) is experiencing substantial challenges which

resulted in a declining trend of research output produced by faculty staff. Shortage of research facilities and the inadequate research policies represent the major challenges for research productivity. Other factors include: the recent trends of brain drain of highly qualified faculty staff, heavy teaching load, limited collaborations between practitioners and academics, moonlighting by faculty in so many institutions, limited publishing infrastructure, paucity of cross-disciplinary research endeavors, and high subscription costs of scholarly international prestigious journals, among others. It is very important to mention here that most of the research articles of faculty members in different universities and colleges tend to be for academic promotion purposes and to a large extent end up on university library shelves.

When it comes to compare research output in Sudan with different African countries, Open Access Scientific Institutional Repository (OASCIR) project at the University of Khartoum shows that Sudan's higher education is placed in the 14th position with only 774 published articles in ISI Web of Science (see Table 2). Table 2 also provides a factor for evaluating the quality of research (Times cited) which is based on 5 years cumulative data. According to this factor, Sudan descends into 20th position.

Table 2: Web of Science Documents in selected African countries and times cited for a 5year period

No.	Country	No. of Science Documents	Times cited	No.	Country	No. of Science Documents	Times cited
1	Egypt	18722	46211	16	Benin	688	1862
2	Tunisia	9026	19125	17	Zambia	664	3292
3	Nigeria	8046	14784	18	Mali	459	2246
4	Algeria	5781	10464	19	Gambia	404	5207
5	Kenya	3976	19207	20	Mozambique	394	1958
6	Cameroon	2142	5947	21	Namibia	378	2914
7	Ethiopia	1951	5382	22	Congo People's Rep.	368	1248
8	Ghana	1484	5210	23	Niger	301	978
9	Senegal	1160	4521	24	Rwanda	173	507
10	Zimbabwe	1072	4156	25	Congo Democratic Rep.	170	530
11	Botswana	877	3450	26	Eretria	133	507
12	Burkina Faso	847	3260	27	Swaziland	107	NA
13	Ivory Coast	784	3128	28	Guinea	106	NA
14	**Sudan**	**774**	**1947**	29	Central African Rep.c	101	357
15	Madagascar	728	2741	30	Mauritania	100	NA

Source: OASCIR, 2014

Students' expectations and perceptions: Generally, in most prestigious universities everywhere students are involved in the processes of self-evaluation. Such universities believe that students' feedback can be used as a powerful tool for quality assurance and accreditation with special attention given to their evaluations on teaching and learning processes. It has been common practice for these universities to ask students to provide feedback on several processes including, for example, the assessment of curriculum, the program administration, teaching strategies, assessment methods, and the quality of academic staff, among others. However, the extent of involvement and the specific procedures vary from one institution to another. More importantly, it worth mentioning that all accreditation agencies around the globe look

at students' involvement in self-evaluation processes as one of the important factors to consider for the academic program, college or institution accreditation.

Consistent with the poor quality assurance and self-evaluation activities in Sudanese universities it is not surprisingly to find that most of the universities and colleges do not pay much attention to students' evaluations of overall institution environment. Major constraints on doing this important activity is the lack of sufficient financial resources and surprisingly some university leaders and faculty staff argue that university students are not qualified enough to provide useful evaluations on quality standards.

To look at students' perceptions about higher education quality in Sudan, a 5-point Likert scale questionnaire is conducted to collect data from (860) students of Bakht Al-Ruda and Kordofan Universities. Five main areas are considered for the performance assessment of the two universities these include: teaching and learning; programs' management and administration; learning resources; students' support services; skills development. Figure 5 summarizes the performance within these areas. It is very clear that learning resources is associated with the lowest assessment.

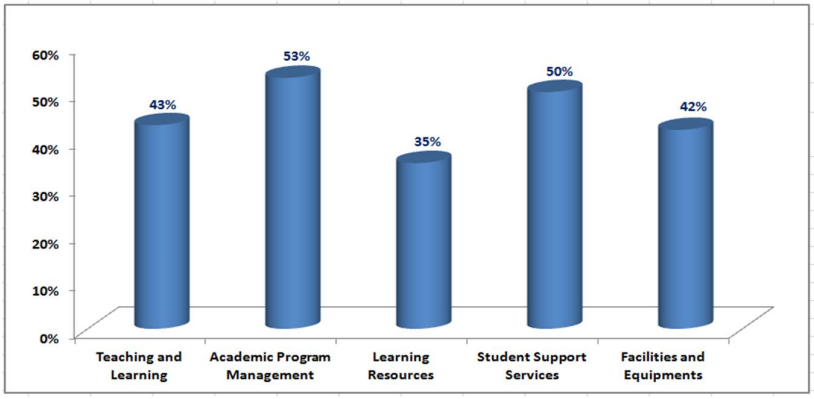

Figure 5: Students' perceptions of some quality assurance dimensions

Source: Own calculation based on students' questionnaire

Rankings of Sudanese universities: The above mentioned reasons and practices resulted in a considerable deterioration in Sudan's higher education quality. One aspect of the quality decline can be clearly seen with the continuing absence of Sudanese universities in the prestigious university rankings like QS and the Times Higher Education. The extent of poor rankings of the Sudanese university can be seen from the latest Ranking Web of Universities (Webometrics). Figure 6 illustrates the very poor rankings of the top five universities in Sudan as compared to other institutions in the Africa and the Arab world. Table 3 also provides some statistics related to Sudanese universities rankings as in 2014.

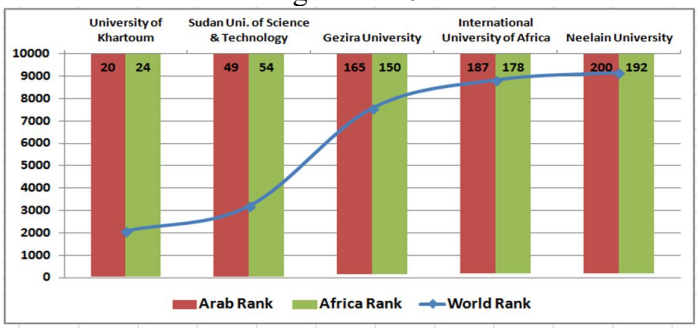

Figure 6: World and regional rankings of the top five universities in Sudan 2014

Source: Compiled by the author based data from Webometrics Rankings 2014

Table 3: Rankings of selected higher education institutions in Sudan 2014

No.	University	World Rank	Africa Rank	Arab Rank	Presence Rank	Impact Rank	Openness Rank	Excellence Rank
1	University of Khartoum	2070	24	20	97	5341	3012	2101
2	Sudan Uni. of Science & Technology	3176	54	49	2486	7751	747	3611
3	Gezira University	7557	150	165	6200	14643	2368	3996
4	International University of Africa	8821	178	187	3305	13576	6980	4442
5	Neelain University	9158	192	200	1496	13884	10505	4175
6	Ahfad University for Women	12143	281	294	19985	10537	12373	4175
7	University of Nyala	12249	285	298	12728	12729	12373	4442
8	National Ribat University	13284	334	344	12456	15724	11342	3996
9	Karary University	13599	351	358	15150	11892	12373	5442
10	University Shendi	13703	355	363	9746	15711	7963	5442
11	Nile Valley University	14500	404	404	11502	15278	10089	5442
12	Open University of Sudan	14965	436	426	12561	14795	12373	5442
13	Bayan College for Science & Technology	15194	453	433	18440	13281	12373	5442
14	Public Health Institute	15671	482	461	18717	19412	12373	2115
15	Red Sea University	15896	507	481	10436	16584	12373	5442
16	Omdurman Islamic University	16463	570	518	21684	13621	12373	4831
17	Future University of Sudan	17395	661	576	16116	18050	9308	5442
18	University of Kassala	17458	673	583	11456	18195	12373	5442
19	Bakhtalruda University	17662	701	597	20494	18052	7121	5442
20	Kordofan University	17683	703	599	14099	18289	11342	5442
21	University of Science and Technology	17730	711	607	17242	17268	12373	5442
22	Uof K Institute of Endemic Diseases	18067	764	650	15069	18198	12373	5442
23	University of Dongola	18596	837	695	14741	18911	12373	5442
24	University of Sinnar	18968	882	725	19107	18491	12373	5442
25	U. the Holy Quran and Islamic Sciences	19326	929	754	21901	16330	12373	5442
26	Sudan International University	19496	949	767	21309	19795	7043	5442
27	Canadian Sudanese College	19544	956	770	20683	18832	12373	5442
28	Sudan Academy of Science	19699	984	786	21660	17987	12373	5442
29	Dalanj University	19743	987	788	21339	18787	12373	5442
30	WadMedani Ahlia College	19784	991	790	10637	20563	12373	5442
31	Al Fashir University	20075	1036	825	21754	19017	12373	4831
32	Uni.of Medical Sciences & Technology	20095	1039	827	19695	19880	12373	5442
33	University of Western Kordofan	20269	1063	841	21532	19416	12373	5442
34	University of Bahri	21492	1227	937	17873	21363	12373	5442
35	Alsharg Ahlia College	21630	1249	950	21511	21279	12373	5442

Source: Webometrics Rankings, 2014

CONCLUDING REMARKS, RECOMMENDATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Like in many developing countries, Sudan's higher education sector is currently experiencing substantial challenges including for example, enrolment expansion, reduction in public fund received, increased competition among higher education institutions, increasing stakeholders' focus on accountability, the rapid increases of higher education providers, and the growing complexity of knowledge, among others. These forces pose critical challenges for quality assurance efforts and make Sudanese universities performing under increasing pressure to convince major stakeholders about the quality of their outputs. Considerable efforts have been made by higher education leaders and policy makers as well as institutions management to develop effective national quality assurance framework. However, all the policies adopted have not been quite successful in the sense that the system is still facing critical challenges in quality assurance policies, accreditation framework and strategic planning issues.

Overall, the current study demonstrates that many of the internal and external enabling conditions for quality assurance policies and practices are still missing in the context of both public and private Sudanese universities. More specifically, the current situation shows that there is a quality gap between the intended and real practices. So it seems timely for policy makers and the institutional leaders to question what has gone wrong and what has been forgotten in an attempt to put it right in their future policy priorities. This calls for a closer attention of the existing policies, systems and practices.

Based on the results discussed above, the study provides some policy implications and recommendations to support the ongoing efforts of the Evaluation and Accreditation Commission to assure quality in Sudan's higher education sector. These include:

The government authorities responsible for higher education sector should pay more attention to make sure that Sudanese universities are truly working to meet the requirements and standards of the national quality assurance framework and should allocated more financial resources to quality assurance activities.

To stimulate and facilitate the adoption and implementation of internal quality enhancement within different Sudanese universities and colleges, the EVAC should strengthen its legal and quality regulatory frameworks.

For an effective quality assurance and self-evaluation practices, quality units and departments within public and private universities need to launch an internal quality management system.

To encourage a productive involvement in strategic planning processes, strategic goals and objectives should be linked to the reward systems and faculty and non-teaching staff should be rewarded for a broader range of things (i.e. initiatives related to strategic planning).

To curb the brain drain phenomenon, working conditions should be improved with more attention given to the salary package and benefits.

To increase the graduates' employability, academic programs and its curriculum should be developed through continuous discussions with the stakeholders with especial focus given to the labor market.

To support the quality assurance culture within Sudanese universities, institutional leaders should recognize and reward faculty and non-teaching staff who make contributions to this area.

Universities should develop effective mechanisms to involve students in the self-evaluation activities. This can be done through encouragement, welcome, and seriously taking students' feedback on all university aspects.

Lastly, a wide range of possible extensions of this article can be conducted to push the ongoing efforts of quality assurance practices within Sudanese universities. It is left to future empirical research to study in more detail the effectiveness of EVAC on ensuring and enhancing quality in Sudan's higher education institutions since its inception in 2003. This can be done by considering a wide range of higher education stakeholders, including: teaching staff, non-teaching staff (management and administrative staff), Students (undergraduate and postgraduate), families, labor market and employers, among others. Future research can also take care of interviewing the leading authority of the Evaluation and Accreditation Commission, leading academic authority, deans and heads of academic departments, and heads of the quality and self-evaluation units.

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