INTERNAL QUALITY ASSURANCE IN HIGHER EDUCATION INSTITUTIONS: THE CASE OF SOME SELECTED GHANAIAN POLYTECHNICS

Dr. Samuel Okae-Adjei
Faculty of Business and Management Studies, Department of Marketing
Koforidua Polytechnic
P. O. Box KF 981, Koforidua – **GHANA**

ABSTRACT

The study examines the internal quality assurance practices of three Ghanaian polytechnics. It also investigates the weaknesses and challenges associated with current practices of quality assurance in Ghanaian polytechnics. Guided by the interpretive theory of social constructionism, the study used qualitative document analysis and interview techniques to investigate the perceptions of forty participants about the quality assurance practices in Ghanaian polytechnics. The study revealed that the Polytechnics have made efforts to develop internal quality assurance structures and institutional-wide quality assurance policies. Notwithstanding their quality assurance efforts, the Polytechnics have not been very successful in establishing a quality culture, weaknesses and challenges still remain. Among others, the study recommends that the Polytechnics should not copy wholesale from the universities' and international practices but should select quality assurance practices relevant to the Polytechnic context.

Keywords: Internal Quality Assurance, Quality Assurance Practices, Quality Assurance Challenges, Higher Education, Ghanaian Polytechnics.

INTRODUCTION

Quality has been the major focus of institutions and governments in the field of higher education since the last two decades. Most countries, including Ghana, have established systems and procedures of quality assurance (QA) in higher education. Highlighting the need for QA in higher education, Van Damme (1999) reports that, there are concerns for a potential decline in academic standards against the background of massification in higher education. In the view of Frazer (1994), quality in higher education is important because higher education institutions (HEIs) are accountable to society, to employers, to students, and to each other. Coates (2006) notes that strong interest in QA has been stimulated and maintained by a range of factors including students' need for accurate information to select course of study; institutions' need for information to help them benchmark and market their performance; governments' and other bodies' need for information to seek for funding, develop policy and ensure accountability. For these and other reasons, the phenomenon has become part of the fabric of many HEIs.

A number of HEIs have put in place internal QA policies and arrangements that ensure quality standards and best practices. Countries have established national QA agencies to coordinate the proper development of such institutions, to ensure high standards in the provision of higher education so that programmes are offered using the best human and physical resources. In Ghana, quality higher education and its improvement have always been issues of high priority on the educational agendas of the government and HEIs. Generally,

this is as a result of rapid enrolment and programme expansion. The government of Ghana has set up a national QA agency, the National Accreditation Board (NAB) to be responsible for QA in higher education. By regulation, the National Accreditation Board (NAB) is mandated under the NAB Law 1993, PNDC Law 317, which has since 2007 been replaced by the NAB Act 744, to accredit programmes offered in HEIs including polytechnics. Programme accreditation is given to polytechnics that meet or satisfy academic, staffing and physical facility requirements and other conditions of NAB. The National Board for Professional and Technician Examinations (NABPTEX) is also responsible for QA in the Polytechnics because they offer Higher National Diploma (HND) programmes. NABPTEX was established by Act 492, of Parliament 1994, among other functions, to formulate and administer schemes of examinations, evaluation, assessment, certification and standards for skills competence and syllabus competence for non-university higher educations. The Board acts as the mentoring institution for the Polytechnics. Preliminary research shows that Ghanaian polytechnics have also adopted various processes and practices for the assurance of quality of the education provided.

Notwithstanding the QA systems put in place by the QA agencies and Ghanaian polytechnics, little empirical evidence exists to show the QA practices of the Polytechnics and the associated challenges. Compared to the public Universities in Ghana, QA in Ghanaian Polytechnics is in its infancy and therefore associated with many challenges. The study examines the QA practices in three selected Ghanaian polytechnics. It also investigates the weaknesses and challenges associated with the current practices of QA in the selected institutions. The study highlights the best opportunities and conditions for enhancing the quality of polytechnic education in Ghana.

The Development of Higher Education in Ghana

Teffera and Altbach (2004) observe that 'HE in Africa is as old as the pyramids of Egypt, the obelisks of Ethiopia, and the Kingdom of Timbuktu' (p.3). The development of higher education in Ghana (formerly Gold Coast) was as a result of the struggles and protests of the nationalist movements. Policies put in place by the British Colonial government allowed limited access to higher education by Africans until the end of the Second World War in 1945. Edmudong (1997) report that the Colonial government feared that products of HEIs would undermine the expatriate monopoly on higher government and business posts. There was also the fear that higher education products could constitute a vanguard of nationalist agitators against the colonial status quo.

In spite of the increased demand by African intellectuals for an African system of higher education in Africa, Leney (2003) notes that there was no commitment by the Colonial government to provide Africans with higher education. Though the British played a role in the development of higher education in Africa, her colonial policy had no clearly defined higher education policies for her colonies. As pointed out by Lulat (2003), 'in the early years of British colonialism, direct government involvements in the provision of formal education were minimal, restricted by and large to providing subventions to educational institutions founded and run by missionaries' (p.18). Some of these restrictive colonial policies put in place in Africa impacted negatively on the development of higher education.

Commissions put in place by the Colonial government studied the feasibility of a university system for Africa and recommended that local universities be created (Leny, 2003). The Asquith commission, for example, recognized the Africanization of the curriculum. As a

result of this recommendation, by an ordinance dated August 1948, the first HEI, the University College of the Gold Coast (now University of Ghana) was established by the British Colonial Government and affiliated to the University of London. The University College of the Gold Coast attained sovereign university status in 1961 with the powers to award its own degree.

The problem of rapid population growth, in addition to increasing demand for higher education in Ghana, led to the creation of other higher institutions of learning. For example, the Kumasi College of Technology (now Kwame Nkrumah University of Science and Technology) was established in October 1951. A third university, the University College of Cape Coast (now University of Cape Coast) was established in December 1962 with the purpose of providing graduate teachers for the increasing number of Secondary Schools and Teacher Training Colleges. The University of Education, Winneba, affiliated to the University of Cape Coast, was later established in 1992. The intention was to train teachers for the Ghanaian Secondary Schools. In May, 1992, the University of Development Studies, located in Tamale, was also established by PNDC Law 279. The sixth public university established in Ghana is the University of Mines and Technology (NCTE, 2006). Presently, Ghana has ten (10) public universities, sixty-eight (68**)** private (local and foreign owned) university colleges, ten (10) public polytechnics, thirty-eight (38) public colleges of education and many other professional /specialized (both public and private) HEIs (NAB, 2016).

Polytechnic Education in Ghana

Polytechnics are HEIs responsible for offering career-focused education in technical and science related areas for national development. In Ghana, polytechnics were first established as technical institutes offering craft courses. The industrial development policy and rapid technological progress in a broad range of areas in the 1960s made technical education necessary. A number of technical schools were established to fill the gap in the country's manpower needs, necessitated by the universities' continuous training of administrators but not the lower middle level skilled manpower needed to move industry and the country forward (Nsiah –Gyabaah, 2005). Three technical institutes were established in Accra, Kumasi and Takoradi to push the accelerated industrial development policy. The three technical institutes were elevated to the status of a polytechnic in 1963 without any legal backing. They however, continued to operate essentially as non-tertiary, second cycle institutions. In a similar fashion, the Tamale and Ho technical institutes were also elevated to polytechnics in 1984 and 1986 respectively. The Cape Coast polytechnic, planned as a polytechnic from inception, was also opened in 1986 (Nsiah –Gyabaah, 2005).

In 1987, the government set up the University Rationalisation Committee (URC) to review the system of higher education that existed in Ghana. The government accepted most of the proposals and recommendations of the URC and subsequently issued a white paper on Reforms of higher education System. The white paper noted the distinctive and important role polytechnics play in national development (Ministry of Education, 2000). Following the publication of the white paper, the Polytechnic Law, 1992 (PNDCL321) was enacted to upgrade the Polytechnic to a higher education status. Consequently the six second cycle polytechnics were elevated to higher education status without any upgrading in terms of facilities or staff. Since it was the policy of government to make the Polytechnics regionally based institutions, the Sunyani, Koforidua, Bolgatanga and Wa Polytechnics were also

established and enjoyed higher education status. The Polytechnics were to award Higher National Diploma (HND).

The Polytechnic Law (PNDC Law 321 of 1992) which has since 2007 been replaced by the Polytechnic Law (Act 745) assigns appropriate aims and objectives which the Polytechnics are to strive to achieve as follows:

a) Provide tertiary or higher education in the fields of manufacturing, commerce, science, technology, applied science, applied arts and any other field approved by the Minister; and
b) Provide opportunities for skills development, applied research and publication of research findings.

The Polytechnic Law further provides that the Polytechnics shall have the powers to:

a) Award Higher National Diplomas (HND), diplomas and other certificates accredited by the National Accreditation Board (NAB);
b) Award degrees subject to the conditions that the Council of that polytechnic may determine;
c) Make provision for the general welfare, recreational and social needs of polytechnic staff and students; and
d) Exercise powers that are incidental to the performance of the objectives and functions of a polytechnic.

From the above objectives, it becomes very clear that the main focus of polytechnic education in Ghana is that its programmes are more career-oriented and practical or skilled-based in content than university education. In general, the Polytechnics impart knowledge and skills, whilst the Universities generate and disseminate knowledge. Both types of institutions are thus complementary to each other.

What Are the Major Challenges Facing Ghanaian Polytechnics?

The Polytechnics, have since their upgrading to higher education status in 1993, been beset with a number of challenges which have undermined their contributions to national development. The major challenges facing the Polytechnics are as follows:

Misconceptions

It seems the role and nature of polytechnic education is not clearly understood by many including the staff and students of the Polytechnics themselves. Until recently, many polytechnic students had the erroneous impression that the Higher National Diploma (HND) certificate was equivalent to a bachelor's degree. According to Nsiah-Gyabaah (2005), there are many well-meaning citizens today who still regard the Polytechnics as junior universities. Many people also think of the Polytechnics as 'inferior universities' with students opting to go there only when they are unable to gain admission into the university. Others consider the Polytechnics as 'advanced Senior High Schools', which are used as the preparatory institutions to re-take Senior High School examinations for the university

Inadequate Financing Arrangements

A major challenge confronting polytechnic education in Ghana is the continuous reduction in direct government support in funding the programmes and activities of polytechnics. As noted by Nyarko (2011), Government expenditure for each polytechnic student in 1990 was

$168 as compared to $2,100 per university student. This actually fell to $74 per polytechnic student by 1998 during which time that of the university fell to $ 900. Nyarko (2011) further indicates that by 2005, the situation had improved to about $1,000 per polytechnic student as against $2,500 per university student.

Low Salaries and Poor Conditions of Service

Members of staff in the Polytechnics are underpaid when compared to their counterparts in the public universities. For instance, with the introduction of the new salary scheme in Ghana, whereas the University lecturer is paid 114 per cent of his basic salary as extra income due to their high market demand, the Polytechnic lecturer is paid only 96 per cent. The low staff salaries and allowances in the Polytechnics seem not attractive enough and this constitutes a serious constraint on the ability of the Polytechnics to recruit and retain quality staff. Inadequate qualified and professional staffing presents problems for teaching, learning and research. Although, all the Polytechnics have made strenuous efforts to step up staff development since they were upgraded to higher education status, no polytechnic has yet been able to meet its full complement of staff.

Inadequate Infrastructure

Inadequate equipment for practical training is a major challenge facing Ghanaian polytechnics. Library space and facilities appear inadequate while relevant reading and teaching materials are in very short supply in some polytechnics to promote teaching and learning. The availability of ICT equipment including computers also appears woefully inadequate. The Polytechnics also face acute accommodation problems in relation to staff and students. Nyarko (2011) observes that 20 per cent of polytechnic students in Ghana are accommodated in polytechnic hostels and the rest find accommodation in private hostels around the various polytechnic institutions. In his view the situation is the same for staff of the Polytechnics and this does not help.

Relevance of Curricula

Curricula development and practical skills training and development have been crucial areas of concern in the Polytechnics. Afeti et al (2003) observe that there has not been any major review of the curricula of the Polytechnics since the last decade. According to them, the syllabi of the Polytechnics have been based on overseas models with little adaptation to local needs. They also indicate that the contribution of industry and commerce in drawing up the syllabi of polytechnics has been minimal. Moreover, it appears many of the Polytechnics are not providing effective programmes relevant to the needs of industry in both the formal and informal sectors of the economy. This may be due to inadequate industry inputs in their curricula. Although there are no reliable statistics, it is perceived that many polytechnic graduates cannot find jobs in the domestic labour market.

Quality and Quality Assurance in Higher Education

According to Newton (2002), the term ‘quality’ was imported from industrial and commercial settings of the 1980s into the domain of higher education. It is challenging to define ‘quality’ in higher education simply because quality is a vague and controversial concept. Moreover, there is no universally accepted definition of the term in literature. The meaning of quality depends on one’s ‘value judgement’; it is subject to the interpretation of

different stakeholders (such as governments, employers, students, administrators, lecturers etc.) who have different interests, values and expectations regarding quality education (Tammaro, 2005). Also, different countries may tend to define the term differently.
Materu (2007) observes that quality is hard to define in the context of higher education because institutions have a broad autonomy to decide on their own visions and missions. In his view any statement about quality implies a certain relative measure against a common standard. A standard is said to be the minimum threshold by which one can judge performance. Such a common standard however does not exist in higher education (Materu, 2007). Doherty (2008) notes that just like 'beauty', the term 'quality' is very subjective. An understanding of the term 'quality' lies in the eye of the beholder. Therefore, any definition of quality must take into consideration the views of various stakeholders (Vroeijenstinjn, 2006). Since the term has a variety of meanings and connotations, it is often described as a 'slippery concept' (Pfeffer & Coote, 1991). Harvey & Green (1993) identify five different conceptions that the term 'quality' represents:

- Quality as exceptional (perceives quality as something special and distinctive, that which is linked to excellence),
- Quality as perfection (perceives quality as a consistent or flawless outcome, close to the notion of 'zero defects' commonly employed in industries),
- Quality as fitness for purpose (sees quality in terms of fulfilling customers' needs or the ability of an institution to fulfill its mission. It implies the ability to meet consistently the standard which the producer has set for itself),
- Quality as value for money (perceives quality as return on investment) and
- Quality as transformation (sees quality in terms of change from one stage to another, focuses on ensuring that students are empowered as a result of their learning).

In addition to the above conceptualisations, Campbell & Rozsnyai (2002) conceptualises quality as 'threshold' and as 'enhancement or improvement'. Notably, many definitions of quality do not seem to apply to higher education because the dimension of quality as perfection cannot be applicable because as noted by Watty (2003), higher education does not aim to produce defect-free graduates. In other sense, the notion of quality as excellence cannot be considered effective since it does not provide any criteria against which to judge quality (Pfeffer & Coote, 1991). That notwithstanding, the definition of quality as fitness for purpose and quality as transformation seems to be more appropriate definitions of quality in higher education (Lomas, 2001). In this study, quality will be considered as 'fitness for purpose', that is, establishing the status of QA in the selected Ghanaian polytechnics in order to ascertain their conformity to generally accepted standards as defined by the selected institutions and the QA bodies (NAB and NABPTEX). It should be emphasised that the approach used to define quality has an influence on the nature of QA policies and practices in a particular higher education system.

HEIs throughout the world are focusing their attention on designing and implementing new QA systems in order to ensure that students receive quality education and are awarded certificates which are widely recognized. Several definitions of QA exist, particularly with reference to higher education. The term 'QA' also seems to have entered the domain of higher education through the manufacturing and business settings of western industrialised countries (Lim, 2001). In the existing literature, terms like QA, quality assessment, quality development, and quality improvement have often been used synonymously. Harman & Meek (2000, p. 4) define QA as the 'systematic management and assessment procedures adopted by HEIs and systems to monitor performance against objectives and to ensure achievements of quality outputs and quality improvements'. QA is actually a systematic,

structured, and continuous attention to quality in terms of quality maintenance and improvement (Vroeijenstijn, 1995). Although QA has many interpretations, the key words that run through almost all the definitions that are related to higher education are maintenance and improvement or enhancement of quality standards. Explaining why higher education QA systems are needed in Africa, Materu (2007) attributes the main factors that drive the need to strengthen QA in higher education on the continent to increased demand for higher education and rising private contributions, rapid growth of higher education enrollment in Africa without a matching increase in funding, demands for increased transparency and accountability, increasing regional collaboration that requires harmonization of qualifications and awards among others.

In HEIs, QA can be either 'external' or 'internal' processes. External QA is a situation whereby there is a review by an external agency (e.g. a national QA agency) or body (e.g. a professional body or accrediting agency) which evaluates the operations of a university (institutional) or its programmes to find out the level of compliance within the set standards (Anonymous, 2008). It is carried out through the instrumentality of accreditation which involves a self-study or self-evaluation, peer reviews by panel of experts and reporting system. Parri (2006) notes that an external QA is necessary in order to prove that the goals set by the institution will be achieved. Often, external agencies expect institutions to put in place robust internal QA procedures. Internal (institutional) QA is the internal policies and mechanisms of a HEI or programme which ensures that the HEI is fulfilling its purposes and is in conformance with the standards that apply to higher education in general or to the profession or discipline in particular (Parri, 2006). Both approaches, to Boyd & Fresen (2004), are important in relative proportions for a successful QA in HEIs. While internal QA may lead to continuous quality improvement, external QA system plays a supportive and facilitative role to the internal practices.

METHODOLOGY

This research is interpretive-descriptive in nature and relies on information in documents, reports and publications from the QA agencies (NAB & NABPTEX) and selected Polytechnics in Ghana. In line with Crotty's (1998) methodological framework, the research made use of the epistemology of social constructionism. Thus, the researcher associated with constructivist researchers. QA systems are perceived as social constructions which are based on certain social values and influenced by multiple factors within a given context. The study sought how different actors in each selected Polytechnic constructed their meanings with regards to QA practices and implementation challenges in their institutions. The student life cycle framework of Chambers & Paul (2008) was adopted to examine the QA practices of the selected Ghanaian polytechnics. Although the entire framework may not fit in the context of Ghanaian polytechnics, certain portions are relevant and applicable. This study adopted the relevant portions of the lifecycle framework by looking at the quality checks of each stage and relating them to the acceptable standards of the QA agencies. The framework follows students in HEIs from the Pre-application stage to the Marketing. This research utilises the interpretive qualitative paradigm of research. It was assumed that QA in the selected institutions under study is a context-specific phenomenon and can only be understood in context. Getting to understand the QA systems in the institutions involve physically interacting with key players in the field. Qualitative data was collected and analysed through face-to-face interviews, direct observation and document content analysis. To enable a cross-comparison of contexts, a multiple-case study approach was adopted. To understand the dynamics shaping the QA systems within each polytechnic, the use of case institutions was

considered the most appropriate. The case-study approach allowed an in-depth analysis of the complex relationship that exists between QA systems in place in the selected polytechnics and how actors or participants perceive them.

Purposive sampling technique was used to select the three (3) polytechnics namely Accra Polytechnic (AP), Koforidua Polytechnic (KP) and Takoradi Polytechnic (TP) because of the degree of proximity and remoteness of the institutions, resources available, institutional size, and perceived level of institutional QA development.

The findings of this study were based on three main pillars namely: A literature review; documentary analysis; and field study. Using multiple sources of data for a study offered the researcher the opportunity to validate and crosscheck the findings (Patton, 1990). Semi-structured interviews (made up open-ended questions) were conducted. The participants were administrative personnel in charge of monitoring QA in the selected polytechnics. Other participants included academic members of staff, Deans/Vice Deans of faculties and Heads of departments. There were twelve (12) interviewees from each studied institution. Two (2) officials from each of the QA agencies, i.e. NAB and NABPTEX were also interviewed to get information on QA in the polytechnics. Purposive sampling technique was used to select key informants. A digital tape recorder was used and notes were taken during each interview session. Some critical information about QA delivery in the institutions was gathered through direct observation. The choice of multiple methods in this research helped obviate the possibility of the researcher bringing his personal biases and values to the research. Miles & Huberman (1994)'s framework for the analysis of qualitative data was adopted for data analysis in this study. The framework is made up of three components: data reduction, data display, and drawing and verifying conclusions**.** The recorded interview/data was transcribed to make it more manageable and meaningful for interpretation. After categories had been created and assigned manually, the data was refined with the identified themes and topics relevant to the research questions. Since the study is a multi-case study, both case-oriented and cross-case analysis was used to analyse qualitative data. Collected data were revisited as many times as necessary to cross-check or verify the emergent conclusions. Interview data were cross -compared with the available documents to establish the validity of the data.

RESULTS AND DISCUSSION

Internal Quality Assurance Practices in KP, AP and TP

The study revealed that different practices are adopted by the Polytechnics for assuring the quality of higher education provided. The practices are geared towards fulfilling their own missions and satisfying the required standards and best practices of the QA agencies. The most commonly employed practices are in the areas of QA structures, student admission procedures, staff recruitment and development procedures, examination procedures, student's evaluation of courses and teaching effectiveness, and institutional self-assessment.
The study gave an indication that the studied institutions are at different stages in developing their internal quality management systems. At the time of gathering data for this study (June 2013), all the studied institutions had responded to the NAB directive by establishing Internal QA Units/Structures (QAUs) except that the Units in AP and TP operate as Directorates/Divisions while the QAU in KP operates as a small unit under the Planning Department. Generally, the QAUs develop quality benchmarks in various activities of the Polytechnics, organise workshops and seminars on QA, facilitate student evaluation of courses and teaching effectiveness, monitor teaching, learning and examination, prepare QA

reports to Management, and maintain a close working relationship with all other units in the institutions on matters pertaining to QA.

While the QAUs in AP and TP perform similar functions and have broader scope, the Unit in KP has a narrow scope. For instance, the QAU at KP do not play any QA function with respect to staff recruitment, student admission and accreditation processes. These QA functions are however performed by the QAUs of TP and AP. AP has Faculty/School Quality Committees and Department Quality Circles that see to the maintenance of quality standards in the faculties and departments. Across the institutions the QAUs are directly accountable to the Rectors and serve as their Secretariats on QA matters. To further conform to NAB standard requirements, the studied institutions have also made efforts to develop institutional-wide QA policies. The policies are documented in AP and TP as draft institutional QA manual, while KP does not have any quality manual.

At the student admission stage, it was found that various measures are undertaken by the three institutions to ensure that applicants admitted are of the right standard and a significant amount of convergence was noted among them in terms of structures and practices that have been put in place. The Polytechnics have published admission brochures to guide applicants. The admission requirements for all programmes in the institutions largely conform to the standards set by NAB and NABPTEX. They have also set up Admission Committees/Boards which make admission decisions. Again, the studied institutions organise entrance examinations for mature applicants before they are admitted and validate student entry qualifications. Whereas the Heads of the QAUs in both TP and AP are members of the Admissions Board, the same cannot be said of KP where the Head of the QAU is not a member of the Admission Board. This seems to be a worry to the QAU of the Polytechnic. Describing the Unit's role in the admission process, a participant at KP raised this concern: '*Our focus is limited so for now we do not go into this area. We should have been part of the admission process but we have been side-lined. We always have very late admissions which affect the quality of education we provide*.'

To ensure that staff recruited and promoted is of the right standard, the selected institutions have explicit appointments and promotion procedures that ensure that only applicants that satisfy recruitment and promotion requirements are employed or promoted. In all cases, only qualified applicants are recruited. While the Heads of the QAUs of TP and AP are represented on the Appointment and Promotion Committees, the same cannot be said of KP. Academic staff is interviewed to ensure they have the requisite qualification and experience before appointment. Since quality of staff is a major requirement in all HEIs, the three case institutions in most cases conform to the requirements of NAB by ensuring that only applicants who hold a minimum of a Master's Degree with adequate research training are employed to teach in the Polytechnic. The mentoring system is also employed for newly appointed lecturers in the Polytechnics. Besides, the Polytechnics have Staff development policies. Staff development is a very important QA practice across the studied Polytechnics. Staff members are given scholarship in various forms to develop themselves.

For teaching and learning to be of the right standard, it was revealed that the selected Polytechnics have put in place maximum teaching loads for staff. There are also policies that guide lecturer-student ratio; however, policies on student class size are rarely in evidence. Consequently, student class sizes differ from one institution to another. The relevance of programmes is very important in HEIs. There must be societal justification for every programme on the curriculum: social, economic, political, cultural or environmental. As

argued by Tagoe (2008), one of the purposes of QA is to give students the knowledge and skills that are necessary and relevant to the current job market. From the study, the institutions have processes for programme approval. The processes usually include Departmental recommendations to the Faculty/School Board and the Academic Board, and then to the Governing Council for consideration and approval.

Arguably, self-assessment is considered as the most effective component of QA. Self-assessment helps institutions to identify their strengths and weaknesses in order to improve them. The study observed that the institutions studied employ a self-assessment system to assure the quality of their programmes although this tool is not effective in the institutions.
The study further revealed that the institutions are making efforts to provide infrastructure/equipment to sufficiently support the core activities of teaching and learning, research and provision of services to the public. This is to ensure that reasonably good and accessible social services are made available to students. The QAUs ensure the provision and efficient management of these resources. The Units monitor and bring to the notice of Management lapses identified as inappropriate so that action could be taken to address them.
The selected Polytechnics have published examination policy guidelines, which are used together with the 'NABPTEX Student Guide' to regulate examinations. They have also adopted the external examinations system; examination questions, marking schemes and marked scripts are externally moderated by examiners from NABPTEX. The institutions have their own internal moderation processes and the criteria they adhere to. Unlike KP, in both TP and AP, examinations questions go through the QAUs before they are sent to NABPTEX. There is also strict supervision of examinations. The institutions take stringent measures to deal with students who get involved in examination malpractice. They have put in place Examinations Malpractice Committees which investigate issues relating to examinations malpractices and make appropriate recommendations to the polytechnics' Management. Sanctions meted out to students who engage in examination malpractice range from cancellation of papers to rustication for a stated period (NABPTEX Student Guide, 2006). For quality enhancement, examination results go through many processes which include Departmental Board, Faculty Board and Academic Board before they are finally approved and published.

It is noteworthy that all the institutions organise student appraisal/assessment of course content and teaching effectiveness at the end of every semester. This gives students an opportunity to provide feedback on their experience of Lecturers, courses and teaching programmes as a whole. Students are sampled for the assessment exercise in TP because of the large number of students involved. For the same reason, the assessment in AP rotates among the faculties. However, in KP the entire student body does the assessment every semester. According to a participant from KP, the appraisal exercise is one of the criteria used to select the best lecturer of the academic year. He indicated a Lecturer who consistently scored less than 50 per cent for three years may be dismissed from the institution.

Quality Assurance Challenges and Weaknesses in the Selected Polytechnics

The study observed that generally, the institutions lack the internal quality management systems that are robust enough for effective self-regulation of their operations when compared to practices in Ghanaian universities and HEIs in the western world. Although some of the institutions studied have established QA Directorates headed by senior members with the responsibility of managing and coordinating the Polytechnic's QA activities, the same cannot be said of all the polytechnics. As noted, the QAU of KP operates as a small unit

under the Planning Department without adequate financial, logistical and human resources. At the time of the study, both KP and AP had three personnel each in their QAUs, while TP had four personnel. None of the staff had academic qualifications related to QA. They also had little experience on QA issues and are not well motivated. As aptly captured by a participant at the Planning Department of KP where the QAU is located during an interview, *'Management support is not very strong when it comes to QA. Management should address the problems we have identified in our monitoring. Logistics and equipment should be provided. As a Head of Department, I don't even have a computer. I am using my own laptop.'* A participant from TP also observed that the research arm of the QAU has only one computer, making it difficult to meet set targets. He indicated that the Unit does not have a vehicle, making staff movement difficult especially when dealing with issues related to the Faculty of Business which is far away from the main campus of the Polytechnic.

The study revealed that although some polytechnics have QA manuals to guide their operations, quality manuals are not common in all the institutions. What exist in some institutions are draft policies which are not binding on the staff of the institutions because they have not been approved by the relevant Boards/Committees. Moreover, from the study there were strong suggestions that most academic staff members have not seen copies of the draft policy documents or manuals and therefore do not know their contents. It was revealed that to a large extent the QA policies were copied from local and foreign universities without much regard to contextual factors. The institutions do not also have strategic plans for QA. As a result, QA issues are approached on ad hoc basis.

The management of QA across the three case institutions appeared to be over centralized. There is inadequate collaboration between the QAUs and the various Academic Departments/Units. Consequently, QA systems mooted and driven by institutional management are regarded as managerial and lack ownership by academic staff. Internal QA systems are therefore perceived as external to academic staff. They are not fully embraced but viewed with suspicion.

Admitting students on protocol basis is one of the weaknesses associated with the admission system in the selected institutions. It was revealed that admitting students on protocol basis puts unnecessary pressure on the institutions by forcing them to admit applicants who do not satisfy standard admission requirements because they are related to "big people" in the society. This was confirmed by a participant at TP during an interview conversation: '*Sometimes students are admitted because they are close to some politicians or because of their sporting abilities even though most of them do not meet the admission requirements. These are the challenges we face and we are managing to overcome. We expect politicians to know better but to a large extent, we are meeting the standards of the external bodies.'*

Moreover, there is a mismatch between the number of students admitted and the facilities/equipment available in the institutions. For instance, computer laboratories, classrooms and library facilities are not adequate to match the number of students enrolled. The concerns raised by respondents highlight the facilities/equipment challenges facing the institutions which served as threats to quality teaching and learning. Commenting on the situation in AP during an interview, a participant said: '*We have a problem with increasing numbers but we are not expanding the facilities. With what we have now, we do not do enough practical work in the laboratories because of the large student numbers. We have the lecturers but we have limited teaching facilities.'* In spite of NAB's requirement that HEIs should have adequate library facilities, libraries in the studied institutions were not big

enough; they were too small for the large number of students enrolled and not well stocked with modern books, a majority of the books being out-of-date. It was evident from the responses that students compete for space in the libraries and often forego meals in order to have a seat in the library especially during the peak period of assignments and examinations
A significant number of academic staff in the institutions is not highly qualified to teach in HEIs; they do not hold the minimum qualification required for appointment to Lectureship. Moreover, none of the Polytechnics satisfies the academic staff pyramid required by NAB. Most faculty members and Heads of Departments are below the rank of a senior lecturer and very few faculty members hold PhDs. It was revealed at the time of the study that, TP had ten (10) PhD/DBA holders, KP had eight (8) and AP had six (6) which confirms that the staff profile of the institutions do not conform to the NAB/NCTE standards. According to the NAB/NCTE norms each polytechnic should have academic staff pyramid of 10 per cent Chief Lecturers (Professors), 15 per cent Principal Lecturers (Associate Professors) 30 per cent Senior Lecturers and 45 per cent Lecturers but the situation in the institutions are nowhere near these figures. Some Head of Departments are too junior and inexperienced to handle the enormous demands of managing the challenges of leadership. Related to these are the generally unattractive conditions of service and salary levels in the Polytechnics as compared to the public universities. This has resulted in low motivation among staff of the Polytechnics. Some academic staff has moved from the Polytechnics to teach in the Universities.

It was evident that the institutions lack comprehensive Staff Development Plans applicable to the wider institution although some individual departments across the case institutions have put in place departmental Staff Development Plans. In most instances, it was observed that the Plans are not systematically followed by institutional managers. In addition, the institutions do not have proper succession plans with regards to academic leadership.

Reflecting on teaching and learning in the case institutions, it was observed that there is a problem of large class sizes and high lecturer-student ratios in the institutions, particularly in the Business Faculties where large number of students are admitted. Although NAB requires the following Lecturer-student ratios: Social science 1:25; Business Administration 1:25; Applied Sciences and Technology 1:18: and Engineering 1:15, the ratios in almost all the above programmes in the case institutions do not conform to the NAB standard. Again, the institutions do not have clear cut policies on curriculum review. Consequently, for the past decade, the curriculum of most programmes in the Polytechnics has not been reviewed. Delaying curriculum review implies that new materials that could make courses more relevant and current are not likely to be incorporated. This can affect the relevance and quality of the courses offered in Ghanaian polytechnics. Although NABPTEX accepts the responsibility of curriculum review in the Polytechnics the study revealed that the Board is unable to do so due to financial constraints.

Tracer studies are important in the maintenance of quality programmes in HEIs. Unfortunately, the study observed that appropriate mechanisms have not been put in place to obtain useful feedback from polytechnic graduates and employers. Thus, the institutions do not conduct quality checks on graduate performance and employment. This tends to undermine the quality of curriculum design and development in the Polytechnics.

Notwithstanding the importance of institutional self-assessment, it was observed that due to weak internal structures, the Polytechnics are unable to undertake effective self-assessment and continuous audit of their academic operations. There are inadequate numbers of

academic staff in the institutions with knowledge and exposure in conducting self-assessment and peer review. In situations where internal self-assessment exercises are undertaken, the institutions are unable to implement most of the recommendations due to financial constraints. What the Polytechnics do by completing a questionnaire from NAB before programme accreditation panel visits only prepares the institutions for external visits. The institutions do not use the completion of the questionnaire to critically assess their capacity to ensure quality in their operations. As noted by Stensaker (1999), when he studied such processes in Sweden, institutions considered the self-evaluations only as preparatory processes. They were not regarded as a process of importance separated from the external audit. In the light of this, the Polytechnics undertake self-assessment as compliance to NAB's procedures but not to ensure the continuous improvement of their operations.

With regard to examinations, investigation revealed that the institutions are unable to satisfy the standard requirements of the QA agencies. For example, there are long delays in the submission of examination questions and marked scripts, and release of examination results. Across the polytechnics, examination results are released close to the end of the following semester causing anxiety and uncertainty among students. Peer review of examination questions is also not a regular activity in the institutions. It is to be noted that examination malpractice is still common in the institutions despite efforts by the institutions to reduce it to the barest minimum.

Investigation further suggests lack of ownership of QA arrangements by the academic staff of the studied institutions. In other words, academic staff has not fully embraced QA. They look at the QAU with suspicion. This is partly because QA in the institutions is centrally managed. Apart from Deans, most of the academic staff is not involved in the development of QA policies. Moreover, it was observed that QA policies and arrangements of the Polytechnics are borrowed from universities and international practices without due regard to contextual factors.

Although NAB and NABPTEX have made significant contributions on QA in the Polytechnics, the study revealed that they are handicapped in many ways regarding the support and guidance they are expected to offer to the Polytechnics. They are not well resourced to effectively perform their QA functions. The major focus of NAB is accreditation and their compliance approach undermines the autonomy of the institutions. The approach does not make the institutions responsible for the continuous improvement of their operations but to satisfy the requirements of NAB.

CONCLUSIONS

This study has produced insights into higher education in Ghana particularly polytechnic education as well as internal QA practices in Ghanaian polytechnics. Although the Polytechnics have made significant inroads into improving the quality of education they offer, they are bedevilled with many challenges. They should not just copy from the universities' (local and foreign) and international QA practices but should select practices relevant to the polytechnic context. They should also select HEIs whose purposes and focus are comparable to theirs, particularly in Africa so that they can use them as benchmarks. The practices of the universities should supplement rather than replace efforts at addressing contextual factors. To improve their existing QA practices to enhance sustainable quality, it is recommended that polytechnics that have still not fully complied with NAB's directive to establish QA structures should be compelled to do so as a matter of urgency. All the

institutions should consider setting up QA structures at the department and faculty level to address quality issues and report to the heads of the QAUs. The responsibility of QA of polytechnic education provided should ultimately rest with the institutions in partnership with the quality assurance agencies. The QAUs in the institutions should be given adequate financial and material resources to operate with. The competences of their staff should be improved through regular training and workshops to reflect current issues in QA. It is also recommended that all the case institutions should have documented QA manuals which will guide their operations. The manuals should be reviewed periodically.

The institutions should develop strategic plans for QA, support the plans through to their implementation and assess all major activities against quality standards. With strong leadership commitment, hopefully, this will gradually transform the organisational culture of each institution into quality culture. In the strategic plans of the various institutions, there must be a an appropriate balance between student numbers, on the one hand, and physical infrastructure, equipment and faculty capacity on the other hand. As noted by Lim (2001), the presence of adequate physical, electronic and administrative services are part of the conditions necessary for successful QA approach, particularly among HEIs in developing countries where this condition, among others is taken for granted.

An improvement in the student/lecturer ratio and excess teaching load will also enable the lecturers to have more time to undertake research, which is considered as a key function of every HEI. Members of the case institutions also need to change their perception of QA as an externally imposed process.

NAB's policy that a minimum of a Master degree is required for appointment to a lectureship in HEIs should be strictly enforced in the institutions. As observed by Lim (2001), the presence of academically qualified staff is a necessary condition for a successful QA approach in HEIs. The institutions should also encourage their staff to enroll on PhD programmes. The institutions should develop Comprehensive Staff Development Plans as part of their strategic plans to replace, upgrade and improve the competence of their faculty members.

In this study, it was evident that compared to the public Universities, the salaries and conditions of service of Polytechnic staff are generally unattractive. It is recommended that the Polytechnics should be more entrepreneurial by identifying other means that will generate internal income to supplement the subvention received from government.

Self-evaluation exercise in the polytechnics should be an integral part of the institutions. It should not be treated as an exercise just to satisfy NABs requirements. By this, the institutions will be taking responsibility for their own improvement.
To improve the examination system, the institutions should put in place measures that will ensure that lecturers and departments meet the deadlines of NABPTEX. The deadlines should be strictly enforced by the institutions.

In an effort to enhance sustainable quality in the institutions, the external quality assurance bodies, that is, NAB and NABPTEX should assist the Polytechnics to develop internal quality culture. They should move from the compliance approach to a more performance improvement model by ensuring that institutional processes of QA in the Polytechnics are strengthened. After granting institutional and programme accreditations to the Polytechnics, NAB should undertake regular quality monitoring and evaluation of internal processes in the

Polytechnics. Finally, NAB and NABPTEX should be adequately resourced so that they will be able to undertake their QA functions effectively and efficiently.

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