CONVERTING POLYTECHNICS INTO TECHNICAL UNIVERSITIES IN GHANA ISSUES TO ADDRESS

By

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Abstract

Ghana has been grappling with unemployment for some time now especially among the tertiary school graduates. One problem contributing to this is the lack of requisite practical and job oriented training in the tertiary schools. This problem has called for the entrenchment of polytechnic education so that graduates can acquire self- employable skills before leaving school. But the polytechnics in Ghana has not been able to achieve this target fully since they are confronted with a lot of problems including poor and inadequate machines and equipment to train students, lack of qualified lecturers, ill-defined academic progression and career advancement pathways, as well as unfair salary and remuneration packages for lecturers. Others are poor infrastructural development and facilities, societal attitude towards polytechnics and poor funding. This paper discusses and analyses the problems in the polytechnics education in Ghana and the attempt by Ghanagovernment to change the polytechnics to technical universities and come out with some recommendations.

Key words: *Polytechnic Education, Technical Universities, Competency Based Training (CBT)*

1.0 Introduction

Polytechnic education or technology education is the solid base for any technological development in a nation. The polytechnics were established to train graduates for skill acquisition and practical knowledge necessary for industrial and technological development. The graduates from the polytechnics are the middle-level manpower required by any nation particularly industry. The graduates are trained to use more hands than minds to solve problems that are confronting their nations. Practical training is indispensable in the polytechnic education and the polytechnics should not compromise on this training. According to Anane (2012) Competency Based Training (CBT) is the best way to go for practical training for Technical and Vocational Education and Training (TVET) in the polytechnic education. Agodzo (2005) defined competency-based learning simply as "do-it-yourself" (DIY) learning. According to him, a graduate who has gone through

CBT should be well equipped for hands-on, practical work that is demonstrated in the specific tasks he can do and must do. Unfortunately, polytechnics in West Africahave not been able to achieve this training due to the following challenges. These are poor and inadequate machines and equipment to train students, lack of qualified lecturers, ill-defined academic progression and career advancement pathways, as well as unfair salary and remuneration packages for lecturers. Others are poor infrastructural development and facilities, poor funding, discrimination on the products of the system, and poor curriculum development (Omega, 2012). Nyarko (2011) also stated amongst other things that the polytechnics in Ghana faced serious staffing and funding problems. It has also been established that societal attitude, discrimination and poor funding are the major constraints to the development of effective Technical and Vocational Education and Training (TVET)(Atsumble, 2012).In Ghana, discrimination of polytechnic graduates in the area of progression in employment and level of entry into some universities for first degrees has been a concern and a problem to the polytechnic education certificate holders and the public at large. The disparity and controversy between the HND and bachelor's degree in terms of placement in the job market and equality is also a big problem. This has resulted in many students opting for the university education, which is purely academic and theoretical as against polytechnic education which is practical and pragmatic. The idea is that with bachelor's degree they will acquire better jobs and earn more salary. This controversy has been a thorn in the flesh of most countries educationalsystem. Accordingto Okumephuna (2008) the two systems are not the same and can never be the same. One is also not an alternative to the other. Polytechnic education is purely a techno-scientific education. This is in contrast to that of the university that is predominantly academic. The argument here is that while polytechnic education is more of practical, that of the university is theoretical. Polytechnic education is 60 percent practical and 40 percent theoretical while that of the university is vice versa. This points to the fact that both educational systems are not the same or is one an alternative to the other. Therefore, a student who is opting for the polytechnic education should bear in mind that he is opting for a practical- oriented education. He can only switch to the university if he wants to go academic or theoretical. Also, one does not enter a polytechnic as a last resort. It is a different educational system with its own mission, vision and, of course, a clear objective(Salawu,2005).This should be clear to persons desiring polytechnic education and the public because "The longer the ignorance and prejudice hang over polytechnic education, the slower the pace of the nation's techno-economic development" (GNA, 2006). Ghana currently has ten (10) state polytechnics that offer courses in Engineering and Technology, Business studies. Sciences and Arts. One in each of the ten regions of Ghana. The polytechnics in Ghana run three year full time and four year part time HND programmes in addition to part time terminal technician's programmes as well as diploma in business studies (NAB, 2013). Technical universities or polytechnic universities orinstitute of technology are defined in some many ways. Charles W. Sorensendefined technicalor polytechnic university as a comprehensive university offering professional, career-focused programs specializing in industrial, practical, or mechanical arts and applied sciences. According to him the benefits of this new designation for a polytechnic are myriad and it includesstudent learning or achievement, career focus, program development, collaborative research and learning, economic development and new peers.

2.0 Discussing of Problems Facing Polytechnics Education in Ghana

Polytechnics are supposed to train and equip students with practical skills that will make them self-employed after school so that the burden of employment on the government can be lessened. But the

polytechnics are finding it very difficult to achieve this in Ghana. The polytechnic graduates parade offices and streets looking for non-existing white collar jobs. The question is what kind of training is the polytechnic giving to its graduates that will prepare them for world of work? Polytechnic training is becoming more theoretical with less emphasis on practical training. The practical training which is the hall mark of every polytechnictrainingis gradually dwindling due to the following reasons.

3.0 Poor and Inadequate Machines and Equipment

Lack of enough facilities, machines and equipment to give adequate training to their students have been a majorproblem to polytechnic. Machines and hand tools, field equipment, laboratory equipment, Instruments are inadequate. Someare in obsolete state and others break down and beyond repairs. In some polytechnics,there are no such facilities for the students to have their practical.

4.0. Lack of Qualified Lecturers

The polytechnics have been experiencing low staff strength due to unfair remuneration and salaries for the polytechnic lecturers as against their counterparts in the universities. Teaching staff are required to possess a minimum of a research second degree and if possible Ph.d in the discipline they would teach or its equivalent as well as some industrial experience. But some of lecturers fall short of these requirements and majority do not have practical industrial training or hands-on experience. Non-teaching staff who should complement the effort of the lecturer by taking the students through the practical sessions are not enough and some do not have the required experience**.** Though the polytechnics have made some inroads in attracting lecturers most of them lack practical skills and as result find it very difficult to handle most of the practical aspects of the courses they are handling. The lecturers do not also take advantage of their sabbatical leave to go to the industry and acquire practical skills so they can impart it to their students. These have made the polytechnics focus more on the theory rather than the practical. Meanwhile, the training should be sixty percent practical and forty percent theory.

5.0. Poor Infrastructural Facilities and Development

Most of the polytechnics do not have adequate resources available for teaching and learning. They lack basic physical facilities such as classrooms, laboratories, workshops, field facilities, and staff offices and bungalows. Some polytechnics have few classrooms with no full complements of furniture, marker board, and teaching staff furniture. Others have dilapidated laboratories and workshop with no appropriate tools, instrument, equipment and furniture.

6.0 Improper Curriculum

In Ghana surprising most of the polytechnics use the same syllabus from the universities especially from Kwame Nkrumah University of Science and Technology (KNUST), University of Ghana (UG), Legon and University of Cape Coast (UCC) to teach their students. Meanwhile, the direction of universities and polytechnics are different. These course syllabuses from these universities are theoretically oriented.

7.0 Calibre of Students Admitted into the HND Programmes

The calibre of students admitted into the polytechnics also contribute to this lack of practical training among the polytechnic graduates. Most of them are not interested in the practical training due to their

background. Majority of them are from pure secondary or secondary technical with very few from the technical institutes. Pure technical institute students have a better foundation in practical than those from the secondary-technical school.

8.0. Ill-defined academic progression and career advancement pathways

The difficulties in academic progression for HND graduate is of great concern to the public. The graduates after finishing have to do top-up in the universities for at least three years to get a degree. Some polytechnics have started running BTEC programme. After the B.Tech what next? There is the need to provide avenues or well defined channels for academic and professional progression and growth of HND graduates up to Doctor of Technology (D.TECH).Though conversion of polytechnic to technical university would solve the aged problem of academic progression for Higher National Diploma (HND) graduate and give access to ever increasing number of HND graduates, other pertinent issues addressed in the paper would have to be looked at.

9.0 Requirements of Technical Universities and the Expectations from the Graduates

Converting polytechnics to technical universities is a brilliant move by the government of Ghana because it will solve unemployment problems and create jobs. But if care is not taken it will not yield the intended results. Technical universities are like mini industries where design, construction, manufacturing, production etc, take place. Students after finishing technical universities can work on their own and will not wait to be employed by government. Graduates from technical universities even get their client or customers before leaving school because they work for institutions, solve individualand public problems whilst in school. A student who has done fashion and textiles in technical university for instance must be in the position to sew and design any dress or cloth. Likewise students in any other technical areas. Some of the polytechnics are doing similar things by equipping their students very well before they leave school. For instance at the dressmaking and fashion workshop at Accra polytechnic and automobile engineering workshop at Ho polytechnic respectively students are seen sewing and repairing vehicles for institutions and are awarding B.Tech in these areas which is equivalent to what is done in technical universities. But what about other departments in these very institutions and the rest of the polytechnics in the country? Some of them are not doing well and some of them do not even have a room to be made a workshop let alone talk about the facilities, tools and equipment to be fixed in there. The fact is that some polytechnics have infrastructural and facilities challenges and have not fully discharged on their mission and therefore need to take time before being converted to the technical universities.

10.0 Conclusion

In order to solve unemployment problems in Ghana and improve the quality of manpower produced from our polytechnics in Ghana, there is the need to do an overhaul of the current polytechnic education and if possible changing it to technical universities.Andthis calls for effective mobilization of resources for this purpose. Public discussion on polytechnic education and it change to technical universities must be done at various levels in the country and the key points that should dominate the discussion should be the requirements of technical universities and the expectations from the graduates of these universities. If these points are discussed thoroughly and well understood then technical universities will achieve the

intended purpose for which they will be established and will not just be a university where people will just get diplomas and degrees and be looking for jobs from the government.

11.0 Recommendations

The government should not rush in changing the polytechnics to technical universities and must ensure that any recommendations that will come before the changeover are fully implemented and can stand the test of time. In addition, the ten polytechnics in the country should not be converted to the technical universities at the same time. After thorough feasibility studies on a particular polytechnic regarding the facilities, tools and equipment, lecturers and technicians etc. then accreditation can be given to that polytechnic tochange name and run the technical degree programmes. In this light, the Council for Technical and Vocational Education and Training (COTVET) must done equipment and facilities need assessment of the various polytechnics in the country and establish a blue print for standard equipment and facilities etc. required for the various courses in the polytechnics. Furhtermore,the curricula of the entire polytechnic education programmes should be revised and tailored towards industries and self-employment of the graduates after school. Practical training and internships should be given utmost importance in the curriculum development and that the polytechnics should be made to go Competency Based Training (CBT). Since Competency Based Training is an industry and demand driven education and training programme, its products have a high demand on the job market. Therefore, unemployment which other programmes are grappling with will not be an issue for CBT graduates.To this end, government must increase the budgetary allocation to the polytechnics since Competency Based Training is an expensive form of education and training because of its emphasis on equipment, well equipped laboratories and other teaching and learning materials for training.

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