

Funding Post-Graduate Education and Research in Public Universities of Ghana: Challenges and Prospects

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Abstract

The purpose of the study was to examine the challenges and prospects of funding post-graduate education and research. The study adopted the descriptive survey design involving the use of quantitative and qualitative methods for data collection. The sample was 330. This comprised 310 Master of Philosophy Students, 16 Heads of Department of and 4 Deans of Schools of Graduate Studies. Data was collected through questionnaire and interview schedule. The SPSS software was used to analyze the quantitative data while the interpretative and discourse approach were used to analyze the qualitative data. The study concluded that postgraduate education and research are prerequisites for accelerated national development but the residential system, methods of teaching and cost involved is depriving many eligible undergraduates. The study recommended policy regulation to reduce over reliance on government budgetary allocation as the primary source of funding for higher education. Finally, Government must encourage more private sector fellowships and sponsorships for postgraduate education and research.

Key words: Post-graduate education, funding, research

Introduction

The public tertiary education sector in Ghana is composed of nine universities, ten polytechnic institutions and ten professional institutes. Enrolment in Public tertiary institutions increased from 201,234 in 2011/2012 to 216,236 in 2012/2013 academic year. For the past 5 years enrolment in public tertiary institutions has shown significant increase over time. The increase in enrolment is averaged at 6.5 percent, with the universities and polytechnics accounting for greater proportion of the increase in each academic year (NCTE Budget, 2014).

To promote the development of the vital human resource needed for sustained national growth and development, universities have come to be accepted as indispensable institutions. The development of university education in Ghana took place within the general context of agitation by African colonies for such education after the Second World War (Atuahene, 2007). The Asquith and Elliot committees prepared the ground for university education in Ghana.

The primary objective for establishing university education in the country was to produce the requisite high level human resource to take over from the expatriate staff as the nation prepared for independence. The first of the universities to be established in 1948 was the University of the Gold Coast, now University of Ghana (MacMillan and Kwamina-Poh, 1978). Half a century down the road, the country can boast of nine public universities.

Statement of the Problem

From the moment of political independence, postgraduate education in Ghana has long been recognized as a critical element in the national effort to attain development goals. Postgraduate studies first emerged at the University of Ghana in early 1960s following its recognition as a fully fledged autonomous institution of higher learning. Before that time, the University College of the Gold Coast, which after 1957 became the University College of Ghana and was until 1961 affiliated to the University of London, used to send its brilliant students to pursue postgraduate degrees overseas, mostly in British Universities. The College, whose students obtained their academic degrees from the University of London, did not develop any postgraduate programmes. Today, postgraduate programmes are also found at the Kwame Nkrumah University of Science and Technology, University of Cape Coast and University of Education, Winneba. It can undoubtedly be said, then, that the need for, and relevance of, postgraduate education has been recognized and appreciated in Ghana for several decades now. Postgraduate education is now seen also as the only way by which the ageing and retiring staff of the universities can be replaced.

In recent decades, the development of these postgraduate programmes has followed a somewhat uneven path. Uncertainty has been brought about by instability in public financing of higher education with consequent decline in the resources available for postgraduate facilities, student fellowships, and financial support of thesis/dissertation research as well as for university research generally. As a result, numerous Masters Dissertations and Doctoral theses have been excessively delayed and some students have been forced to abandon their studies. It is estimated that the governmental discretionary budget on education is over 40 percent. The

Tertiary Education share of the recurrent budget is 12% (Effah, 2003). At the same time, the government is not able to meet the entire projected budget that institutions have presented.

There have been studies on funding higher education in Ghana, for instance Manuh, Sulley and Budu (2007), and Atuahene (2007), However, little is known about funding post-graduate education and research in the public universities. The study was undertaken to address the gap. This study sought to examine the challenges and prospects of funding postgraduate education and research in the public universities in Ghana. In order to achieve the above objectives the study sought to answer the following research questions:

1. What are the major constraints in the funding of post-graduate education and research
2. What are the prospects of postgraduate education and research in Ghana?

Literature Review

Funding Post-graduate Education and Research: Challenges and prospects

One of the problems facing universities in Ghana is brain drain. This has serious financial and societal cost on the country. Even though this study did not investigate the cost of human capital flight in the country, any critical observer will understand the financial cost of brain drain to the country. In as much as higher education remains tuition free, investing in the education of individuals is a drain to the public coffers and thus attempts must be made to get the returns of such investment. So long as highly trained nurses, doctors and graduates of all disciplines leave the country, development will be stalled. It is estimated that there are more African scientists in the United States than on the continent (Dassin, 2006).

It may be argued that, one major reason preventing Ghanaian scholars and the intelligentsias to be present at home is the lack of attractive incentive structures in the university system. The government should provide an incentive system that will attract highly qualified academicians and intellectuals to the country. Moreover, it is extremely difficult for universities in Ghana to recruit seasoned Ghanaian professors to teach in the universities. Most people would find it difficult for instance to leave their above \$45,000.00 salary per annum for mere \$18,000.00 in Ghana terms. Nonetheless, there could be other alternatives that would make them contribute in different ways. Trying to create better conditions of service would attract most Ghanaians abroad to come home to support the universities. Alternatively, universities can encourage diaspora participation where Ghanaians abroad are encouraged to participate in the development of their economies through a well-established system.

Akyeampong (2004) suggested the following measures to improve post-graduate training and research;

- (1). Government should continue to fund basic research to levels which will enable the universities fulfill better their role as major agent of economic growth.
- (2). Governments of developing countries must create the necessary social environment that nurtures scholarship; they should provide a reasonable percentage of their GNP to promote quality higher education and capacity-building.

- (3). International organizations and researchers in the developed countries must help break isolation often experienced by researchers working in developing countries, through such methods as creation of centres of excellence, twinning and sandwich post-graduate programmes.
- (4). Governments especially from the developing countries are invited to study the opportunities afforded by the new information technology towards establishing “virtual universities”
- (5). Higher educational institutions and research institutes outside the higher educational set-up need to collaborate to promote the principles of universality of knowledge.
- (6). Higher educational institutions should ensure that the education of the researcher includes training in both the natural and social sciences, nature and society being too subtle to be described from one single viewpoint only.
- (7). International organizations including International Council for Sciences (ICSU) and the International Social Sciences Council (ISSC), must prepare guidelines for their members concerning the ethics and responsibility in the conduct of their research.(Akyeampong, 2004:9)

Methodology

Research Design

The study adopted the descriptive survey design involving the use of mixed methods for data collection. Nwana (1992) stated that the descriptive simple survey is an attempt to collect data from members of a population in order to determine current status of that population with respect to more variables. Nwana stresses that the descriptive survey method is used for investigating a variety of educational problems including assessment of attitudes, opinions, demographic information, conditions and procedures and that descriptive data are usually collected through questionnaire, interviews or observation.

Population and Sample

The population for the study comprised graduate students from three public universities in Ghana namely; University of Ghana, Legon, University of Cape Coast and Kwame Nkrumah University of Science and Technology-Kumasi. The population comprised 1,460 students who were pursuing Master of Philosophy (M.Phil) Degree programmes in various academic fields. The various components of the population were as follows; University of Ghana, Legon, 1001, University of Cape Coast, 319 and Kwame Nkrumah University of Science and Technology, 140 (Basic Statistics, 2013). These institutions were purposively selected based on their years of existence and the number of postgraduate programmes offered. The sample was 330. According to Sarantakos (1998), a population of 1,500 would require a minimum sample size of 306. This informed the sample size. This comprised 310 Master of Philosophy students, 16 Heads of Department and 4 Deans of Schools of Graduate Studies. The 310 respondents who formed the core of the sample were chosen through simple random quota sampling. University of Ghana 47%, University of Cape Coast 40%, and Kwame Nkrumah University of Science and Technology 13%. These percentages were based on the size of the study population of each institution. Accordingly, 146 students were sampled from University of Ghana, 124 from University of Cape Coast and 40 from Kwame Nkrumah University of Science and Technology. The students in all departments were selected through simple random using the lottery method. The list of all MPhil and PhD students were obtained from the offices of Deans of Schools of Graduate Studies from the three institutions

which served as the sampling frames from which serial numbers were assigned to each name, the serial numbers were cut into equal sizes missed together and put in a hat. A random selection of a serial number determined the student to respond to the questionnaire. All Heads of Departments who were running MPhil and PhD programmes in the three institutions were included in the study. The three Deans of Schools of Graduate Studies were purposively selected to enable the researcher have first-hand information on how the Graduate Schools oversee the postgraduate training in the various departments under their jurisdiction. The Deans were selected because the researcher thought that they were managers of various Scholarships and Research Grants and therefore would be able to provide enough information concerning funding. The renowned researchers were purposively selected due to their rich experience in research and would be able to give the direction for which graduate research should go to make it relevant to the socio economic development of the country.

Data Collection

The instruments used to collect data for the study were questionnaire and interview schedule. Questionnaire was used for students pursuing M.Phil programmes and Heads of Department while interview schedule was used for the Deans of Graduate Schools. Items on the questionnaire included major constraints graduate students face in accessing funding for their postgraduate education and the prospects of their postgraduate degree. It was structured based on a Likert type scale. All the questions were closed-ended. The likert scale was used because it gives room for respondents to express their degree of agreement or otherwise to a statement. The scale is flexible and lends itself to rearrangement of responses for easy interpretation. Nwana (1992) stresses that; descriptive data are usually collected through questionnaire, interviews or observation. The use of questionnaire made it easier for the researcher to analyze the descriptive data using appropriate software for conclusions and generalizations to be drawn.

The other instrument used was interview schedule. This enabled the researcher to conduct interviews with the Deans and Representatives of Deans of Schools of Research and Graduate Studies of the three selected universities. Those interviewed included the Deans and Executive Secretary in charge of Graduate Scholarship and Research Grants and two Renowned Researchers. These interviews were conducted at the offices of the respondents. These people were purposively sampled to be interviewed because they were the managers of postgraduate programmes, Graduate Scholarship and Research Grants in the three universities.

Pilot Testing of Instruments

Pilot testing of research instrument was carried out at the University of Education-Winneba. This institution was selected for the pilot-test because students of this institution have similar characteristics as the three sampled universities for the study. University of Education-Winneba is a public university which also runs MPhil and PhD programmes. During the pilot testing of the instruments, the researcher realized that many respondents did not answer the opened ended questions which sought to solicit respondents' opinion on the challenges and prospects of graduate education. The reason for the open ended questions was to make the session more objective, however, since almost all the respondents failed to provide appropriate responses, the questions were reframed to statements and provided with alternative responses to be selected from. Cronbach's Alpha was calculated to ensure reliability of items. The overall Cronbach's Alpha was .79 which was converted

to .8 an indication of satisfactory reliability of the instruments. Internal validity of items was also tested to ensure both validity and reliability of the instruments.

Data Analysis

After completing check on completeness and accuracy of the responses to the questionnaires, the information gathered was computed and converted into figures and symbols that could be conveniently quantified and analyzed using the SPSS software. Qualitative data was analyzed manually based on themes. The qualitative data was collected through an in-depth interview with respondents. In all occasions, the interviewees were very candid with their opinions but did not permit the researcher to record the interviews on tape. Hand written notes were made and statements purported to be made by them were emailed to them for confirmation and correction before citing in the analysis and discussion section of this work. Qualitative data was analyzed manually. The descriptive statistics were used to answer the various research questions. Descriptive statistics such as frequencies and percentages were computed to describe data and other characteristics of respondents.

Results and Discussion

Constraints in funding post-graduate education and research

Question 1: What are the main constraints in funding postgraduate education and research? Table 1 shows the views of students and Heads of Department.

In answering Research Question 1, the distribution of responses of students and heads of department are provided in Table 1. The percentages of respondents are put in brackets.

Table 1: Constraints in funding postgraduate education and research

Constrains in funding	D No.(%)	N No.(%)	A No.(%)	Total
Poor funding of postgraduate education by government is due to competing needs of other sectors of the economy	127(44.1) 6(37.5)	30(10.4) H.3(18.8)	131(45.5) 7(43.8)	288 16
Poor internal controls by the universities tend to deprive them of enough funds from their internally generate income	65(22.6) 7(43.8)	79(27.4) 2(12.5)	144(50.0) 7(43.8)	288 16
Lack of information about research grants in the country makes it difficult to assess funding for graduate research	38(13.2) 7(43.8)	19(6.6) 2(12.5)	231(80.2) 7(43.8)	288 16
Poor collaboration between the universities and industries makes it difficult to get funding for	27(9.4)	28(9.7)	233(80.9)	288

postgraduate studies and research 7(43.8) 3(18.8) 6(37.5) 16

Lack of information about available research grants and poor collaboration between the universities and industries as some of the major constrains of funding for postgraduate training and research. These assertions were also confirmed by the Deans of Graduate School. NCTE Education Budget of 2014 gave the huge gap of 67% between the amount of money required by the universities and the amount granted them by the government for 2015, this supported the need for the country to support cost sharing as an alternative approach to supporting the universities in their financial predicaments. (NCTE Budget, 2014).

Prospects of post-graduate education and research

Research Question 2: What are the prospects of postgraduate education and research in the public universities in Ghana?

In answering Research Question 2, the distributions of students and heads of department responses are provided in table 2. The percentages of the respondents are in the brackets.

Table 2: Responses on prospects of postgraduate education and research

Responses	D No.(%)	N No. (%)	A No.(%)	Total
Postgraduate students can easily get job after school	175(60.8) 11(68.8)	28(9.7) 3(18.8)	85(29.5) 2(12.5)	288 16
Postgraduate students attract jobs with attractive remuneration	126(43.8) 8(50.0)	65(22.6) 3(18.8)	97(33.7) 5(31.5)	288 16
Due to the dignity society and the job market attach to postgraduate studies, many Ghanaians are prepared to pay high tuition fees to obtain higher degrees	81(28.1) 5(31.5)	47(16.3) 6(37.5)	160(55.6) 5(31.5)	288 16
Some public and private sector organizations offer scholarships to their hardworking employees to pursue postgraduate studies as part of their human resource development policy	46(16) 0	30(10.4) 0	212(73.6) 16(100)	288 16
Development in ICT provides opportunity for workers to enroll for postgraduate studies without having to lose their jobs	41(14.2) 2(12.5)	74(25.7) 2(12.5)	173(60.1) 12(75)	288 16

Five statements were given to respondents to indicate their agreement or otherwise of the prospects of postgraduate education and research in the public universities. The first statement was that “Postgraduate

students can easily get job after school” Surprisingly, 175 students (60.8%) disagreed with the statement, 85 student (29.5%) agreed to the statement and 28 students (9.7%) answered neutral. Similarly, 11 heads of department (68.8%) also disagreed with the statement, 2 (12.5%) agreed to the statement and 3 (18.8%) were neutral."

To the statement “Postgraduate students attract jobs with attractive remuneration”, the following responses were given: 126 students 4 (3.8%) disagreed with the statement, 97 students (33.7%) agreed with the statement and 65 students (22.6%) answered neutral. However, the responses to the statement that “due to the dignity society and the job market attach to postgraduate studies, many Ghanaians are prepared to pay higher tuition fees to obtain higher degrees” were very interesting. These were the responses: 160 students (55.6%) agreed with the statement, 81 students (28.1) disagreed and 47 students (16.3%) were neutral. Five heads of department (31.5%) agreed to the statement, another 5 (31.5%) also disagreed and 6 (37.5%) were neutral. In response to the statement that “Some public and private sector organizations offer scholarships to their hardworking employees to pursue postgraduate studies as part of their human resource development policy” the following responses were given: 46 students (16%) disagreed with the statement, 212 (73.6%) agreed with the statement, 30 students (10.4%) were neutral. All the heads of department agreed to the statement.

To the statement that “Development in ICT provides opportunity for workers to enroll in postgraduate studies without having to lose their jobs” analysis of students’ responses to the above statement revealed that 41 students (14.2%) disagreed with the statement, 173 students (60.1%) agreed and 74 students 25.7 were neutral. Responses on the same statement by heads of department were as follows: 2 (12.5%) disagreed, 12 (75%) agreed and 2 (12.5%) were neutral. How do the above findings relate to the qualitative data? In answering the question of what are the prospects for postgraduate education in the country? The Dean of the Graduate School of the University of Ghana said “Postgraduate programmes of my school are attracting high patronage especially the weekend and sandwich programmes, this is because nowadays people do not want to sacrifice their jobs to attain masters degrees”. Another interviewee said that “after attaining your basic needs of a nice car and decent housing, it is not money that matters but titles, I went to do my PhD not because of money but the respect attached to the title Dr. and Prof”. This confirms the qualitative finding that many students pursue postgraduate studies not for only monetary gains but to satisfy their self-actualization needs as opined by the Maslow theory of motivation.

To cope with government funding reductions in Canada, Grier (1995), during his tenure as a President of Canadian University, commented on the need to launch a major private funding campaign. He stressed that corporate giving has up to now been exclusively devoted to capital items such as buildings, scholarships, professorships and equipment. There is the need to redirect the resources to annual operating expenses including students’ research.

The Australian Bureau of Statistics, (2004), had indicated “that knowledge is fast becoming a key factor determining the strength and prosperity of nations and that research has become a key source of knowledge and new ideas is central to success in the new ‘knowledge economy.’ Those nations with strong research systems will be well placed to prosper both economically and socially”. The need for Ghana to establish a national research commission to solicit funding and coordinate all research activities both in the public universities and research institutions cannot be over emphasized.

Atuahene (2007) had indicated that funding tertiary education all over the world is a crucial challenge for governments, policy makers and university administrators. University administrators in developing countries like Ghana must follow the footsteps of most advanced countries where there has been an upsurge in the demand for policy restructuring to reduce the over-reliance on the federal and central governments to financing higher education.

The current economic condition of Ghana does not support Moumouni (1991) assertion that it is possible to provide free, compulsory education for all at all levels, “that it is necessary to set aside a large portion of the national budget for education in order to provide for constant growth in educational facilities and for mass education” (p.142).

Conclusion

The study revealed that

1. There is lack of information about Fellowships, Scholarships and Research Grants available to postgraduate studies and research in the public universities
2. Postgraduate education continues to attract high patronage despite the high cost due to the private and social benefits benefactors derived from it.
3. The universities can increase accessibility to postgraduate education through the Open University system.

Recommendations

In the light of the findings, the following recommendations were made:

The public universities should champion policy regulation to reduce over reliance on government budgetary allocation as the primary source of funding for higher education. Additionally, the government must encourage more private sector fellowships and sponsorships for postgraduate education and research. This can be done through special tax incentives. Also, the public universities should establish strong collaboration with the private sector to determine national research agenda.

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