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Expanding Higher Education for the Public Good: Ghanaian Stakeholders' Perspectives on the Quality Dimension

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Abstract

This study examined the views of twenty-three stakeholders connected to the Higher Education (HE) sector in Ghana, to understand the links they make between HE and the fulfilment of the public good. The study, which was conducted in 2018, was purely qualitative, employing individual interviews and focus group discussions. The results showed that stakeholders make strong links between the quality of inputs into HE, the approaches used in imparting and assessing relevant knowledge and skills, and the quality of graduates. They also drew links between the quality of HE, the products and their ability to serve the public good in addressing the problems of the society. The implication is that the quality of an institution is measured by the quality of investments made into it, the quality of faculty and instruction and its ability to serve the public good. The study recommends that HE institutions should design programmes that regularly develop the pedagogical competence of HE faculty to make HE pedagogy more relevant to societal needs. It also makes a case for the provision of academic/remedial support for students who may be underprepared for HE, while ensuring that the quality of HE practitioners and participants is of an acceptable standard. Lastly, higher education institutions should create conditions that can bring about innovations in funding, good governance and accountability.

Keywords: higher education, public good, quality, inputs, products, Ghana

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Résumé

Cette étude a examiné les points de vue de vingt-trois parties prenantes liées au secteur de l'enseignement supérieur (ES) au Ghana, afin de comprendre les liens qu'elles établissent entre l'ES et la réalisation du bien public. L'étude, qui a été menée en 2018, était purement qualitative, utilisant des entretiens individuels et des discussions de groupe. Les résultats montrent que les parties prenantes établissent des liens étroits entre la qualité des apports dans l'enseignement supérieur, les approches utilisées pour transmettre et évaluer les connaissances et compétences pertinentes, et la qualité des diplômés. Ils ont également établi des liens entre la qualité de l'enseignement supérieur, les produits et leur capacité à servir le bien public en abordant les problèmes de la société. L'implication est que la qualité d'une institution est mesurée par la qualité des investissements qui y sont faits, la qualité du corps professoral et de l'enseignement et sa capacité à servir le bien public. L'étude recommande que les établissements d'enseignement supérieur conçoivent des programmes qui développent régulièrement la compétence pédagogique du corps professoral de l'enseignement supérieur afin de rendre la pédagogie de l'enseignement supérieur plus adaptée aux besoins de la société. Cela plaide également en faveur de la fourniture d'un soutien académique/de rattrapage aux étudiants qui peuvent être sous-préparés pour l'enseignement supérieur, tout en veillant à ce que la qualité des praticiens et des participants de l'enseignement supérieur soit d'un niveau acceptable. Enfin, les établissements d'enseignement supérieur devraient créer des conditions propices à des innovations en matière de financement, de bonne gouvernance et de responsabilité.

Mots-clés : enseignement supérieur, bien public, qualité, contributions, produits, Ghana

Introduction

There is enough evidence in the literature to show that higher education (HE) is a public and a private good; that participation in HE is the gateway to knowledge and skills capital for the development of individuals, communities and nations (McCowan 2016). Although HE began in elitist institutions, participation in HE has increased since the late twentieth century (Powell and Solga 2011; Marginson 2016; Wright and Horta 2018). Globally, higher education enrolments doubled between the year 2000 and 2016, from 100 million to 216 million (Wright and Horta 2018). In some contexts, there is limited capacity to respond to the growing global demand for graduate enrolment (World Bank 2017).

Africa has also experienced some expansion in the past two decades, with enrolments more than doubling between 2000 and 2010 (UNESCO 2013), albeit with low participation rates in some countries (Muthui 2013). Ghana is one of the countries in sub-Saharan Africa with increasing enrolments. With only two public universities at independence, by 2015, it had eleven public and about seventy private tertiary institutions (British Council 2015). However, due to limited academic facilities and inadequate family economic resources, among other reasons, there is a mismatch between supply and demand (Goode 2016). Thus, many qualified applicants are unable to participate in higher education.

During the 1980s and 1990s, universities across Africa struggled to maintain standards of academic quality, as international agencies and national governments reduced their HE budgets in response to international pressure to prioritise funding for primary education. In recent years, however, the international discourse around investment in HE has given way to new understandings of how HE contributes to economic and human development, which have strengthened the justification for investment in HE around the world (Oketch, McCowan and Schendel 2014).

Mere participation in HE is not sufficient for the development of the knowledge, skills and values needed for economic and human development (Arum and Roksa 2011; Blaich and Wise 2010). Rather, it is the application of the right inputs through the right approaches that count towards the production of highly skilled human capital. This means that HE institutions must be sites for the production of the right human resource for today's world of work. Yet, this seems to elude many HE systems that are expanding, including Ghana's.

In many developing economies, including Ghana, national policies and HE institutional goals aim at making all HE graduates useful to the economy. Accordingly, the relationship between HE, employment/unemployment and employability has gained more attention among higher education practitioners. Especially in Ghana, there has been much public outcry against graduate unemployment in recent years. While the aggregate unemployment rate in Ghana stabilised at around 4–5 per cent after 2009, there appears to be a slightly upward trend of late. For example, the total unemployment rate in Ghana rose from 6.6 per cent in 2017 to 6.7 per cent in 2018 (Adenira, Ishaku and Yusuf 2020). In 2019, the most recent year for which data is available, the total unemployment rate was estimated at approximately 7 per cent (Danish Trade Union Development Agency

[DTDA] 2020). However, unemployment among the youth is consistently estimated to be higher than total unemployment. In 2017, unemployment among the youth was approximately 12 per cent (Adenira et al. 2020); in 2019, this was estimated at 14 per cent, which is slightly higher than the West African average of 12 per cent (DTDA 2020).

A breakdown of youth unemployment by education suggests a higher unemployment rate among graduates (Baah-Boateng 2015). According to the Ghana Living Standards Survey Round Six (GLSS 6), the most recent data available, unemployment is estimated to be 6 per cent among graduates, compared to 2.7 per cent of people with no formal education and 3.35 per cent of those with basic education (Ghana Statistical Service 2014). While this is challenging, assessments of demand for key skills, such as ICT, suggest there is a deficit in the skills needed to perform high-level IT tasks (Darvas and Palmer 2014). The most recent data available (World Bank 2010, as cited in Darvas and Palmer 2014) shows that, in 2009, there was a demand for about 3,000 high-level IT jobs in Ghana's labour market. The estimated supply was 970. However, in that same year, around 350,000 people were employed in the Ghanaian construction industry, a number that was estimated to grow to one million by 2020, of whom approximately 250,000 would be skilled. Even so, Darvas and Palmer (2014) highlight the difficulty in achieving this strong growth due to the lack of sufficiently qualified high-skilled labour. Similarly, estimates using data from Kwame Nkrumah University of Science and Technology (KNUST) suggest a shortfall of approximately 100 graduates per year in different construction-related disciplines, including architecture, land economy and civil engineering. Much of this is attributed to the lack of graduates with effective and readily applicable skills (Darvas and Palmer 2014), which suggests a gap between 'quality' and 'industry-ready' graduates.

The debate has mainly focused on graduate quality and the skills gap between industry requirements and what graduates carry with them into the labour market. However, this reflects only a marginal share of unemployment. According to a study by the Ghana Institute of Statistical, Social and Economic Research (2013), some skills that tertiary education graduates were expected to have – such as the ability to analyse data, propose solutions and make decisions; argue logically; solve problems; and communicate effectively (oral and written), among others – were found to be lacking. This has given cause for dissatisfaction with the quality of graduates that Ghanaian HE institutions produce, a situation which is likely to affect the future image of HEIs. This study, therefore, intended to examine the links made by individuals connected to the higher education

sector and analysts of that sector between the quality of HE provision and its products and the fulfilment of the public good. It sought to answer the following questions:

1. What perspectives do Ghanaian stakeholders hold on the characteristics of higher education that contribute (or not) to producing graduates capable of serving the public good?
2. What major quality-related issues in higher education concern stakeholders in Ghana?

Conceptual and Theoretical Framework

Quality is at the heart of education; it is a fundamental determinant of enrolment, retention and achievement. Good-quality education translates into learning outcomes that develop the capacity of the individual to secure employment, improve his/her life and that of his/her family, community and nation. Although there seems to be no consensus among scholars on the definition of quality education, certain indicators of good-quality education are known to be critical for producing learning outcomes capable of transforming individuals and communities. These include some input and process variables, such as teachers, teaching and learning resources, desirable entry characteristics of learners, and facilities, among many others (UNESCO 2015). The literature points to a direct link between inputs and educational quality at all levels. For example, in Ghana, the unequal allocation of resources in the country's geographical regions and educational institutions reflects in the entry characteristics of learners in HE. Thus, depending on how resourced secondary schools are, they may be categorised between A and D according to their academic performance and funding. Therefore, students entering HE may have weak academic grades, which may eventually affect their exit quality.

Adequate financing of educational inputs also determines the quality of the educational process and output. These work in tandem to facilitate the teaching and learning process, culminating in educational learning outcomes (Woessmann 2004). Thus, the greater the quality of educational funding, the greater the quality of students' learning outcomes. It must be noted, however, that improvements in students' learning outcomes require policies and practices that transcend spending. Sustained quality teaching is another factor that plays a critical role in the process of HE provision. Effective teaching and learning occur when teachers are equipped with up-to-date knowledge, skills and professional pedagogies, which are acquired through regular and continuous professional development (Hénard and Roseveare 2012).

Based on the foregoing discussion, this study links the education production function with human capital theory, by incorporating Adams's (1998 cited in Chapman and Adams 2002) three components of the production function model (that is, input, process and output/product) with Stufflebeam's (2003) fourth dimension (that is, context) to derive the context, input, process and product (CIPP) framework. This, in combination with Shultz's (1961) conception of education as an investment, is meant to show how investment in education works to provide the needed resources that produce a high-quality, productive workforce. The 'product' element of the model has been linked to Robeyns's (2006) interpretation of the instrumental role of education, which is the major emphasis of the human-capital approach to education.

Human capital theory views education as an investment that yields returns to the individual in the form of higher earnings and to the state in the form of employment and economic growth, thus making education instrumental for economic growth (Gillies 2015). Human capital theory also positions education as both an individual and a public good, in the sense that the individual is rewarded financially from the education investment and the economy is boosted by individuals with advanced human capital. The theory stresses that the knowledge and skills that individuals acquire through education raise their productivity in the workplace. In essence, the better and higher the investment made by individuals in education, the higher the yield. This idea implies that it is the quality of a workforce (through education) that determines their earnings. Viewed this way, the education system and its quality become an important focus for state investment.

Gillies (2015) identifies two challenges that characterise human capital theory: it diminishes the concepts of education and of the human. Education is positioned in a subordinate, instrumental role, with its broader aims and purposes narrowed to economic goals. Consequently, there is a risk of narrowing the curriculum to consist of 'skills for work' and losing the concept of personal growth or the development of 'whole' individuals. The emphasis shifts from knowledge and disciplinary depth to transferable skills, especially those seen as conducive to market profitability. The quality of skills of school-leavers, college and university graduates thus becomes the key focus in relation to employability.

With regard to diminishing the concept of the human, Gillies (2015) claims that human capital theory reduces individuals to merely capital goods and economic potential to be exploited. Humans are constructed

as mechanical objects, thus, downplaying what it means to be a living person, rather than a life to be lived (Gillies 2011, cited in Gillies 2015). These challenges notwithstanding, human capital theory continues to play a dominant role in national and international discourse on economic policy in education.

Recognising these nuances, the study adopted human capital theory with a focus on the context, input, process and product (CIPP) model (Figure 1) while concentrating on the relevant HE knowledge and skills that would yield returns, improve graduates' personal lives and contribute to national development.

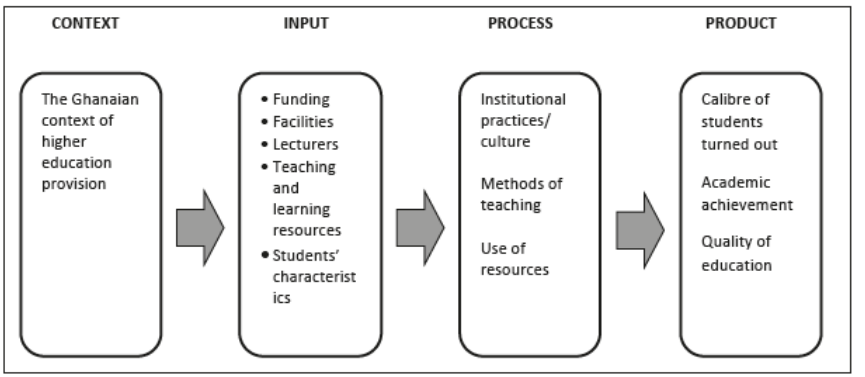

Figure 1: Conceptual Framework for the Study

The study was conceptualised on the premise that context is important in understanding the provision of and trends in higher education in any country. Also, it is based on the view that the quality of the inputs and processes in context translate into HE products. It is therefore critical that discourses on higher education and the public good take cognisance of the mix of contextual factors, inputs and processes that work together to produce an employable HE graduate who can access the benefits that inure to individuals and communities through participation in HE.

This article has five sections. The first is the introduction, which makes a case for this study, followed by a description of the context, the methodology, the results and discussion, and finally, the conclusion and recommendations that are drawn from the findings. The next section discusses the context of the study.

The Ghanaian Context of Higher Education

Expansion of HE

Ghana's HE landscape has gone through a complex evolution, beginning with the first colonial post-secondary institution in the then Gold Coast in 1924. Its prime purpose was to produce human resource for public service and build capacity for leadership, national development and modernisation (Antwi 1992). The HE system began expanding in the 1990s with the opening of more public and private institutions when demand for the employment of graduate professionals and the liberalisation of the economy opened the gate for more universities to be established. The most current available data indicates that, by 2016, the National Accreditation Board (NAB) had accredited seventy-two private higher education institutions and twelve public universities.

Although the public institutions run programmes in all disciplines, with some specialising in science, technology, energy and natural resources, most students enrol in humanities and social science-related programmes, a trend that is of much concern to education planners (Ministry of Education 2005). Therefore, expansion in science, technology, engineering and mathematics (STEM) has been a key national priority both for state-run university education and teacher education. Private institutions, on the other hand, tend to offer programmes that respond to labour market needs (such as entrepreneurship, and vocational and technology-oriented programmes, etc.).

Access and Participation in Higher Education

The requirement for entering into full-time study at higher education institutions in Ghana is good passes in six subjects (three core and three electives) in the West African Senior Secondary School Certificate Examinations (WASSSCE). Entry also depends on the availability of academic and residential facilities and government subsidies to institutions. Due to the limited space for applicants, and the keen competition to access the public institutions because of their lower cost, many eligible applicants are turned away through a highly selective institutionalised process. In the 1980s, a negligible number (0.7 per cent) of the relevant age group was represented at university (UNESCO 1998); this had increased to 16.2 per cent by 2015 (Ministry of Education 2019). Private institutions admit some of the 'leftovers', many of whom come from elite and middle-class backgrounds. Table 1 and Figure 2 show the gross enrolment trend of public and private HEIs between the 2009/2010 and 2016/17 academic years.

Table 1: Gross enrolment trend of public and private HE

Type of Institution	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Public	179,998	185,268	202,063	221,632	238,574	248,507	155,402	371,822
Private		32,275	59,899	61,874	75,272	72,239	Not available	72,156

Source: National Council for Tertiary Education [NCTE], 2016

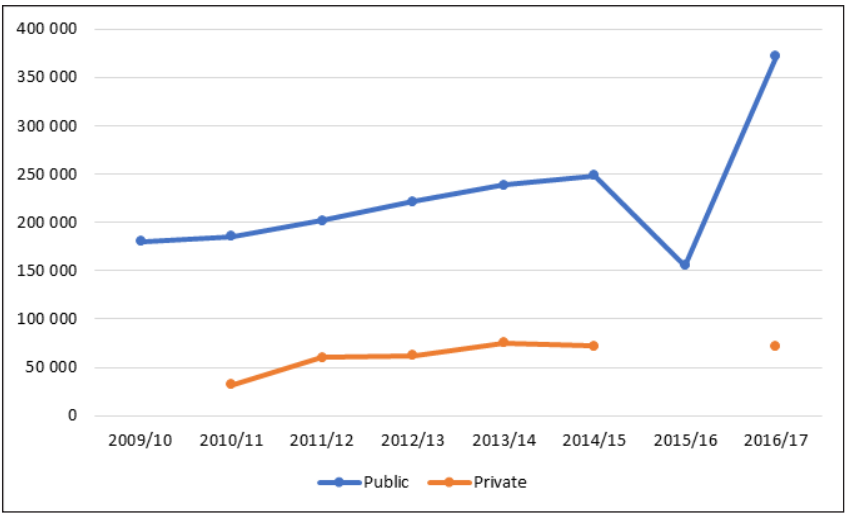

Figure 2: Gross enrolment trend of public and private HE participation
Source: NCTE, 2016

Accessing and participating in higher education also depends on one's ability to pay. Different funding regimes have been in operation since independence, including the current cost-sharing system that was introduced in 1997. The cost-sharing system implies that students pay academic facility user fees while government pays for tuition, administration costs and the provision of major infrastructure. The implication is that the financial base of families and households is a direct determinant of students' access to and participation in HE.

Public sources of funds for running higher education institutions are obtained from the government's annual budgetary allocations, the Annual Budget Funding Amounts (ABFA) and the Ghana Education Trust Fund's (GETFund) support for capital acquisitions, staff development and research. Funding for private higher education institutions, on the other hand, mainly comes from students' fees and internally generated funds. In addition, the government has earmarked a portion of the Teaching and

Learning Innovation Fund (TALIF), established with the support of the World Bank and managed by the National Council for Tertiary Education (NCTE) for private tertiary education institutions. However, the amount is negligible (NCTE 2015).

The higher education system in Ghana has expanded in terms of the number of institutions. However, although national policies and HE institutional goals take cognisance of equal and equitable opportunities for prospective students, and despite free tuition, access and participation still seem to advantage those with the wherewithal (including financial capability). Again, the HE programmes that are widely accessible seem to be in disciplines for which job opportunities are non-existent, thereby making the fulfilment of the public good appear to be mere rhetoric.

Methodology

This paper draws from the 'Higher Education and the Public Good in Four African Countries – Ghana, Kenya, Nigeria and South Africa' research project, funded by the NRF/ESRC/Newton Foundation. The paper presents perspectives of Ghanaian stakeholders on the links they make between the quality of higher education provision and its products and the fulfilment of the public good. The project was purely qualitative, employing individual interviews and focus group discussions (FGDs). Interviews were conducted with a cross-section of twenty-three stakeholders, made up of: heads of agencies at the national level; stakeholders of civil society, including employers concerned with higher education issues; and students and staff from three higher education institutions. There was a blend of males and females, thereby, giving the respondents' perspectives a gender balance.

The heads of agencies and stakeholders of civil society we interviewed were the political head of higher education, being the most senior civil servant in higher education administration at the Ministry of Education, and one head in each of the following: a regulatory body, a funding body, a labour/trade union and an institution concerned with the recruitment of higher education graduates. They had varied academic qualifications, ranging from bachelors to doctoral degrees in various subject areas. Many of them also had rich experiences in academia and international exposure before joining industry.

In the case of the participants from higher education institutions, three institutions were purposively sampled, based on their different locations and characteristics: one comprehensive public university in a region which is nationally ranked as the fourth most disadvantaged, in the southern part of Ghana; one community university college in an oil-rich regional capital,

also in southern Ghana; and the third, a faith-based private university in a commercially vibrant region in the middle part of the country. The participants comprised a vice-chancellor, a deputy registrar in charge of human resource, administrators, heads of department, academics (lecturers) and students. The staff and students were pooled from various subject areas, including business, home economics, financial accounting, mathematics, economics, religion, education and public health. Undergraduate and postgraduate students were interviewed.

The individual interview guides and focus group discussion schedules were designed and validated by the Institutional Review Board of the University of Cape Coast in April 2018. All the student interviews were conducted through FGDs. There was also one FGD with lecturers. All the others were individual interviews.

Data collection took place from May to September 2018, by three researchers, with each being assigned a number of respondents. Appointments with the respondents were made by phone, and on the appointed dates the researchers visited the respondents in their respective offices or designated sites. The individual interviews lasted for a minimum of thirty minutes and a maximum of fifty minutes; the FGDs lasted between fifty and ninety minutes. All the interviews were recorded, transcribed and anonymised, after which they were analysed by coding that was generated partly on the basis of the research questions and associated themes and partly from internal discussions by the research team.

Results and Discussion

The stakeholders in this study expressed strong opinions about the link between the quality of higher education institutions and their ability to serve the needs of the society as a public good. They agreed that social and economic development happens when universities equip the workforce with knowledge and skills they can put to use. They also agreed that universities must be of good quality in order to produce well-trained graduates for the labour market. For instance, a good-quality university should imbue in its recipients the necessary knowledge, skills and values to help improve the quality of their own lives, that of their families and the nation.

The views expressed were in relation to the input and process components of the conceptual framework that guided the study, while relating these to the quality of the product (output) – the graduate. Factors considered under the input variable were qualification and training of lecturers, entry characteristics of students, funding and facilities. The process factor looked at teaching approaches and assessment.

Higher Education Inputs

Qualification and Training of University Lecturers

The common understanding among the participants in this study was that universities offer learners the opportunity to engage with different perspectives, and develop their originality and creativity, thus equipping them with the skills to solve societal problems.

> … to train human resource and equip them with skills that will enable them to provide services to solve critical challenges that affect society, so that there will be prosperity and growth. (Vice-chancellor, private university)
>
> Higher education is supposed to refine people's knowledge and skills so as to exploit the resources available in the country, both natural and human so that the people in the country can enjoy. (Head of department and lecturer)
>
> Higher education is a process where individuals develop their intellect or mind to think critically. (Funding body representative)

Because the role HE plays is so important, provision must be made for major inputs. This includes the quality of lecturers employed. Lecturers are pivotal to the success of education since they are critical in translating the curriculum into relevant learning experiences for students and, thus, determine what skills students acquire for their future endeavours (Hénard and Roseveare 2012). In this study, some staff of the higher education institutions also attested to this fact. One Head of department observed:

> The quality of staff who have been handling both academic and administrative matters in tertiary institutions, these two categories of staff play very important roles in sending out products who will fit well in the society. (Head of department, private university)

Although most HE staff (including lecturers) possess the requisite qualifications, there were concerns about the inadequacy of their professional development. According to some students, this was evident in the poor application of theoretical knowledge during the teaching and learning process. On the basis of their experiences, the students claimed that some lecturers lacked the relevant teaching strategies:

> Some of the university teachers are not that qualified, they do not have the skills … they don't make their teaching practical … So you will sit there and they cannot connect whatever they are teaching you to the real-life experience. At the end of the day, they have a lot of good stuff in their head but how to apply it out there becomes the problem. (Students' FGD, S1)

Especially in private institutions, some of the lecturers were described by the students as 'bad nuts' who did not 'measure up to standard':

> For the private sector, what I can say about them is that some of them are more concerned with the profits they can make from their investment and so certain standards that they're supposed to follow fall short. For example, if you look at the faculty that they have, some of them do not measure up to what is required for higher education training. There are a few bad nuts which have joined, but, the few good ones, they are up to task. (Students' FGD, S2)

This was further compounded by some lecturers' lack of enthusiasm to teach, which they exhibited in their teaching:

> Basically, if you go to the private universities you have a lot of people there who really … didn't want to be teachers but because they don't have anything to do and they're seeing it as a source of income, so they go into it. So the passion is not there to be able to impart to the students. (Students' FGD, S2)

In sum, the adequacy of the training of HE faculty, their enthusiasm and commitment to their work were issues that stakeholders perceived had the tendency to affect the quality of work negatively and, by extension, the quality of HE products. This was particularly the case in private institutions, which in many cases were financially constrained and thus were unable to recruit highly qualified staff. What seems to be the norm in many Ghanaian private institutions is the engagement of high-calibre staff from public institutions on a part-time basis. Such staff thus add to their already overloaded work schedule, thereby short-changing the students who may themselves not be very well prepared for independent study in higher education.

Entry Characteristics of Students

Human capital theory suggests that we need to train more human resource to function better in society (Blaich and Wise 2010; McCowan 2016). The current expansion in many higher education institutions in Ghana is aimed at the realisation of this goal. However, there seem to be some unanticipated consequences. One of these is the heterogeneity of HE clients, a phenomenon that ruptures the traditional notion that HE is 'designed for educating a privileged minority of young, white western men without disabilities or without the constraints of employment or dependents' (Hinton-Smith 2012: 4). The weak academic backgrounds of some participants was a matter of concern for many of the lecturer-participants:

> I think the liberalisation of the tertiary education landscape is the problem now. It seems we've broadened the landscape so much so that it's not everybody who is there who should have been there. I think that the bar is a bit low

> now and, for that matter, we may not be getting the quality of product that we would have aimed for. (Lecturer 2, public university)
>
> If the massification affects the quality, then we don't expect the end-product to be as before. (Senior staff, public university)
>
> Their IQs are low. They may not be able to fit well – I mean, the tertiary education – they may not be able to absorb as much as they need to fit well in the world of work. … they may not be able to acquire the skills that they need. So, for that matter, when they come to the world of work, I think they may not be able to fit. (Lecturer 1, public university)

This was especially worrisome in the private institutions, as many of them struggled to attract well-qualified applicants. While public institutions are oversubscribed, private institutions are usually unable to match the competition. For this reason, private institutions feel impelled to admit students who have been 'rejected' by the public ones, with most of these students possessing the financial means but weak entry grades. Additionally, private institutions need to meet their financial obligations, which are realised mainly through students' fees. Some lecturers commented on this thus:

> When it comes to private institutions, I think that it's basically finances, because everybody is looking for students everywhere and at a point in time you have to lower the standard to be able to get them because you need to survive. Because if you want to go strictly by regulatory standards you might not be able to meet your financial obligations. So you have to come down to a certain level to admit students. Some are not really qualified to be at the university and they don't match up to the standards … (Lecturer 3, private university)

It was noted that, often, well-qualified students who cannot afford the fees lose out at both public and private institutions. The role that the quality assurance and regulatory bodies are required to play to ensure the quality of HE staff and admitted students appears to be unchecked. The observation of a Head of department in a private university exemplifies this position:

> On the admission requirements, I think the regulatory bodies need to be a bit stringent on the requirements and also make sure that the institution is scrupulous when it comes to admitting students. (Head of department, private institution)

Being inclusionary, the HE system now has to find ways of dealing with the issues associated with expansion, such as the funding challenge, which drives away many qualified applicants in spite of the so-called expansion, the knowledge deficit of new entrants and the challenges of private participation.

Funding and Facilities

Undoubtedly, empowering higher education institutions to produce good-quality human resource requires a huge financial input. Yet, this does not seem to be happening in the Ghanaian higher education institutions that the stakeholders in this study spoke about. The stakeholders corroborated that, currently, the government subvention for higher education is not commensurate with the expansion. This situation is further exacerbated by a consistently dwindling financial allocation.

> I would say funding is a major challenge. For me, funding is very, very critical. Even in the public universities, the government provides funding for only, maybe, salaries. So, funding sources is something that is a major challenge. (Vice-chancellor, private university)
>
> Funding continues to dwindle and to dwindle and to dwindle and to dwindle compared with the expansion that government itself is calling for in higher education. (Staff, public university)
>
> Funding is a big problem now. The facilities we have, especially in the public institutions are not adequate. (Staff, public university)

According to the stakeholders, the funding challenge leads to resource and infrastructural deficits. In their view, the quantity and quality of physical facilities that have resulted from the funding challenge is a major hindrance to quality teaching and learning. Stakeholders from all three types of institutions in this study (public, private and community college), including civil society, alluded to this fact:

> Institutions are struggling to get the facilities and resources they need to train the people who go through higher education in the country. So, funding is still a challenge in tertiary education, both public and private. (Head of department, private institution)
>
> … the lack of resources for higher education … . You visit some of the higher institutions and get to their lab and it will be like my village … (Employer)

Infrastructure constitutes a critical element in institutions of higher learning. Evidence points to the fact that high-quality infrastructure, and conducive physical environment for that matter, produces many benefits, including better instruction and positive student outcomes (Teixeira, Amoroso and Gresham 2017). However, this challenge appears insurmountable in some higher education institutions. In Nigeria, for example, Subair, Okotoni and Adebakin (2012) revealed that the quality of infrastructure in some federal and state universities was not only grossly inadequate, inconvenient and outdated but also did not befit the status of infrastructure in a university.

This was deemed to be one of the causes of poor teaching and learning, which also led to the production of graduates who were unable to meet global standards. Inadequate structures and facilities in tertiary institutions creates low morale and discomfort among students and generally affects the quality of tuition and learning (Isa and Yusoff 2015).

I draw one major conclusion from the stakeholders' views regarding the funding challenge and inadequate/poor state of infrastructure in HE: in spite of the call for expansion in higher education to meet national development, investment in HE by the state is minimal, which suggests that funding higher education may not be highly prioritised by the state. Therefore, the quality of HE products (graduates) should not be expected to be above the level of investment made into their preparation.

Higher Education Processes and their Effect on HE Products

The higher education processes that this study explored were teaching and assessment approaches. This was against the backdrop that, in equipping students with the relevant knowledge, skills and attitudes to address the problems that confront society, the approaches employed should be fit for purpose. Regarding HE pedagogy, both students and lecturers pointed to the fact that HE instruction primarily focused on theory, to the detriment of hands-on practical training:

> You see, oftentimes we learn about the theory, theory, theory, but then the practical aspect is what we are lacking. We need to garner the knowledge, yes, but then the practicality is something that we are lacking. (Students' FGD, S2)

> Pertaining to the problems we are facing as a country in terms of higher education, I think in the aspect of training, the education is meant to train only the theory aspect, let me put it that way. The practical aspect is not there. So even if someone can be a graduate and even have first class and employed, he cannot perform well in the office. Then it means all the years that you spent in school, excuse me to say, we just wasted it. (Students' FGD, S4)

These views reveal a gap in the method of training students for the job market. Higher education expansion and emphasis on theory were blamed for students' lack of critical thinking skills and, hence, their inability to create new knowledge that will benefit the society.

> When we were there (in the university) we were asked to write essays. They would give a question and you are supposed to give the theories surrounding it, give your critical analysis about that theory and come up with your own suggestions related to the environment where you come from. And with that one, you see that the student will be given the opportunity to think beyond what he has been taught in the lecture theatre. But these days, because of

> the numbers, this is not possible. So you see that, even though they will have acquired a degree, but when you put a simple problem before them they are not able to analyse it critically. In this world now we need people who are analytical thinkers to do the work for us. (Trade unionist)

This finding relates to a study conducted by the Ghana Institute of Statistical, Social and Economic Research (2013) which found that certain skills expected of HE graduates, such as problem-solving, the ability to analyse data, propose solutions and make decisions, among others, were lacking. The stakeholders in this study noted that these skills were lacking in HE graduates partly because in the course of their training internship opportunities were either non-existent or limited.

Industrial attachment provides an avenue for students to apply theories obtained in HE directly to practice, while using the skills obtained to inform the creation and reinforcement of new knowledge in HE. Expressing his views on this, the vice-chancellor of a private institution bemoaned the inability of HE institutions to live up to this expectation. He noted that whereas, elsewhere, students are made to undergo internship during vacations, in Ghana the practice is not well organised because of weak collaboration between HE and industry. This was corroborated by the trade unionist who made the following observation:

> One thing that I have realised is that our higher education here, especially for those that are doing the technical skills: they are limited in practical work. They may have the theory but when they have to actually use their hands to implement that theory that is in their heads, there is nothing, because that actual practical training was not provided at the university because of lack of funds. So if we really want to train our people to fit into the global society then we should look at the practical aspect very critically, especially for those who are doing Technical Education, the Home Economics and all those people, we should give them practical training that will let them be able to use the skills that they learn. (Trade unionist)

Consequently, it was intimated that when industries employ graduates, they incur huge expenditure to build their capacity. The obvious solution, according to the vice-chancellor, is to review the methods used in teaching and inculcate 'graduate soft skills' to ensure that the desired impact is made.

> … we need the training to change, we also need to change our training pedagogy to make sure that we are giving them the skills that will help them in their workplace. (Vice-chancellor, private university)

> I think that's also within the industry-led skills – and the postgraduate soft skills – that we really need to inculcate into our students so that when they complete they will have those soft skills that are very, very important in a place of work. (Vice-chancellor, private university)

Closely related to the issues the students raised concerning the predominant transmission approach to teaching is the mode of assessment. Ideally, through assessment, higher education graduates should be capable of demonstrating the knowledge and skills they have acquired through their training. Unsurprisingly, the students in this study revealed that the overemphasis on memorisation of content yielded the reproduction of that content.

> The system focuses on just memorising what you're given, that is, the lecture notes. Our system is about reading what you've been given and that is it, so if you're able to reproduce what you have been given, you will pass. (Students' FGD, S3)

Knowledge transmission and theory dispensing without practical application will undoubtedly lead to reproduction. It is also imperative to note that the output of graduates – for example, their ability to use their job positions to solve problems associated with the workplace – is a means to measure the quality and effects of the institution. This position was supported by both the students and the vice-chancellor:

> If the products are good then we can say that the educational institutions are actually working because that is what we consider as the end product. (Students' FGD, S1)
>
> … how people will be able to solve, analyse issues and then solve critical challenges in whatever position that they get in. Somebody who, for example, has to head a senior high school, how is that person using his knowledge to promote the good development of that institution? (Vice-chancellor, private university)

Conversely, many of the stakeholders doubted the ability of HE graduates to meet the needs of the job market and thus transform the economy of the nation. A Head of department, for example, quizzed rhetorically:

> … productivity … means that product of tertiary institutions, when they go to the world of work, what are they able to do? Are they able to translate the knowledge they acquire in school into practical situations? (Head of department, private university)

These perceptions point to the fact that the current pedagogical processes in HE do not seem to prepare students with the relevant skills, in spite of today's complex and highly technological society which requires skilled human resource to match it.

Conclusion and Recommendations

This study examined the links made by stakeholders between the quality of higher education provision and its products in fulfilment of the public good. The results showed that stakeholders make strong links between the quality of inputs into higher education (in this case, the faculty, students and funding/resources), the approaches used in imparting and assessing relevant knowledge and skills, and the quality of graduates. They also drew links between the quality of HE, HE products and their ability to serve the public good in addressing the problems of society. The implication is that the quality of an institution is measured by the quality of investments made into it, the quality of faculty and instruction and the ability of the products to serve the public good.

A combination of factors need to be addressed to improve the quality of higher education. Firstly, I consider proposals towards improvement in the three inputs discussed in this paper, that is, lecturers, HE students' characteristics, funding and infrastructure. As it is evident that there is a strong link between teachers/teaching quality and student learning and that teacher quality is the most important factor in student learning, it is becoming much more imperative that the training and continued professional development of HE faculty is given more attention. The absence of this partly accounts for the lack of hands-on experience and overemphasis on memorisation and reproduction, which was noted to be a concern to students.

In the absence of academic conferences, seminars and workshops, which lecturers attend voluntarily, it appears there are no consciously planned, career-stage continuing professional development programmes offered by higher education institutions. This is further exacerbated by the fact that most lecturers do not possess professional teaching qualifications. Universities, quality assurance units and regulatory bodies need to consciously consider designing programmes that develop the pedagogical competence of HE faculty, as well as continuing professional development programmes that regularly update and enhance their general professional skills with the aim of making HE pedagogy more relevant to the societal needs.

I now consider the issues raised by the stakeholders regarding the characteristics of HE participants. The massification of HE, the heterogeneity of participants and the weak academic grades some present in HE are subjects that have gained research attention. Nevertheless, there does not seem to be adequate conscientisation among HE faculty about the diversity in the characteristics of HE participants. Higher education institutions

need to attach more importance to the role of student support centres and continuously provide the necessary logistics for academic/remedial support to students who may be underprepared for HE work. Conversely, regulatory bodies and quality assurance units need to ensure that the quality of HE practitioners and participants is of an acceptable standard.

Regarding funding in HE, I make two proposals. Firstly, given that higher education is a public good, adequate funding should be given to it by the government to ensure that HE institutions are resourced enough to make them more accessible. Again, there should be more conscientious efforts in allocating budget for infrastructure and physical facilities to meet the increasing number of HE clients and enable institutions to produce graduates who can compete in the global labour market.

Contrarily, it is obvious that the government alone cannot fund higher education, much as it is clear that many students from poor socioeconomic backgrounds are incapable of financing their education without government's financial support. Therefore, higher education institutions should focus on creating conditions that can bring about innovations in funding, good governance and accountability.

Looking ahead, research on how different types of institutions (urban-elite/less-endowed) operate to develop human capital for the country's needs will be critical to arrive at best practices and changes or new directions to improve the quality of HE graduates in Ghana.

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