

## **Higher Education Institutions' Impacts on the Socio-Economic Growth of Ghana**

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## **Abstract**

Ghana's socio-economic history as a developing country is a chequered one. Thus, a sustainable Socio-economic development is one of the resolves of Ghana in order to enhance the wellbeing of her populace in addition to her overall national development goals. This, therefore, necessitates that Higher Education (HE) together with other national institutions and sectors contribute in all facets to meet the ever increasing demands of the economy and other national development plans as spelt out by the National Development and Planning Commission (NDPC) of Ghana. Based on these all-embracing national development objectives, the National Council for Tertiary Education (NCTE) and the National Development and Planning Commission (NDPC) of Ghana have in various national documents and fora called for the need for (HE) in Ghana to build effective ties with national development plans in order to contribute to the growth of the country. By means of secondary data sources comprising of public reports, official statistics, and published papers, this paper sought to unravel the contributions of HE to the development of Ghana and the associated factors that inhibit their roles in the stated national development objectives. The study revealed that HE in Ghana contributes to the socio-economic development of Ghana through research generation, human-capital development, regional and local development. The study also indicated that these contributions are however derailed with challenges such as inadequate public funding and the somewhat mismatch between HE curricula and the present national developmental needs of Ghana.

**Keywords:** Higher Education, National Development Plans, Socio-economic Development, Ghana.

## 1.0. Introduction

Higher Education (HE) plays vital roles in the socio-economic and human development of any country (Sutton, 1998). This has made its policies increasingly important on national issues after years of neglect in relation to primary and secondary education. Development as a concept has been defined by various authors in different ways. One of such definitions most relevant to this paper is that of Thomson (2008,p.3) who defined it as “a *constant process of improvement in which education, research, and service play prominent roles in creating positive change in the self, the people around us, our communities, and the institutions and structures that support us.*”

The emergence and the significance of knowledge-based economies for development also mean that HE institutions are expected to participate in the development process (World Bank, 2003). However, the importance of HE to developing countries goes beyond the emerging knowledge economy as Its usefulness also lies in its impacts on domestic capabilities (Pillay, 2010). Marginson, Kaur, and Sawir (2011) also believe that HE institutions are relevant to the development of developing countries as they are involved in training skilled labor as well as providing social opportunities for the citizenry at large. Current national demands have also made it imperative for HEIs to expand their traditional roles of teaching and research and contribute to the external needs of society through their third missions such as service and community responsiveness. Significantly over the years, HE institutions have only sought to produce knowledge for their own sake without any meaningful impact on society. This expansion in focus is partly due to the emergence of “Mode 2” knowledge production where according to Gibbons et al (1994) is to have knowledge produced and applied in practice with direct impact on society. Chatterton and Goddard (2000) also point to a number of converging developments that are facilitating the service function of universities. An example is the increasing awareness of many international problems such as poverty and economic development. It must, however, be noted that the contribution of HE to development is not a recent phenomenon as it has always been part of the four basic functions of universities elaborated by Castells (2001). According to Castells, these four basic functions include the formation of ideologies, generation of knowledge, selection and formation of elites as well as the training of a skilled labour force. This is also corroborated by the distinctions made by Trow (1970) regarding the autonomous and the popular functions of universities which among other things include HE response to external needs of society.

Ghana was elevated to the standing of a lower-middle income country from the status of a lower income country by the World Bank on 1st July, 2011. This upgrade in status as noted by the (Ghanaian Panel on Economic Development Report, 2014) was a result of stable democratic system, the high growth rates and the decreasing inflation. However, the report further stated that despite the upgrade in status, the Ghanaian economy has not been without difficulties in recent years. This therefore calls for the need of all sectors including higher education to contribute and to change the socio-economic fortunes of Ghana. As indicated by McDonald et al (2013), the increments of the skills of a country’s workforce are important if they are to successfully bail

themselves out of economic challenges. This calls into equation the contribution of HE in Ghana in training the required human resources needed to aid the country's socio-economic development.

HE in Ghana, commonly referred to as Tertiary Education is regarded as the education undertaken after secondary level and at universities, polytechnics, specialized institutions, open universities and any other institution to provide training that leads to the award of diploma or degree qualifications (Committee on Review of Education Reforms in Ghana, 2002). They include universities, polytechnics, college of educations, nursing and agricultural training institutions. Ghana is one of the one few countries in Africa that spends a lot on the education sector. From 2011 to 2016, Ghana's spending on education constituted around 22% - 27% of its total expenditure whilst the expenditure on education as a percentage of the Gross Domestic Product (GDP) also ranged from 6% to 8%. (Ghana web, 2017). The belief is that these investments on education in general must turn into new knowledge generation and innovation that will benefit the country. As noted by the (Ghanaian Panel on Economic Development Report, 2016), society has therefore placed a lot of expectations on HE to contribute to the socio economic development of Ghana.

The main objective of this paper is, therefore, to discuss some relevant roles of HE to the socio-economic and national development plans of Ghana. The paper is also aimed at examining the challenges that derail HE in Ghana from its developmental mandate.

To help address these stated objectives, the following research questions will be addressed;

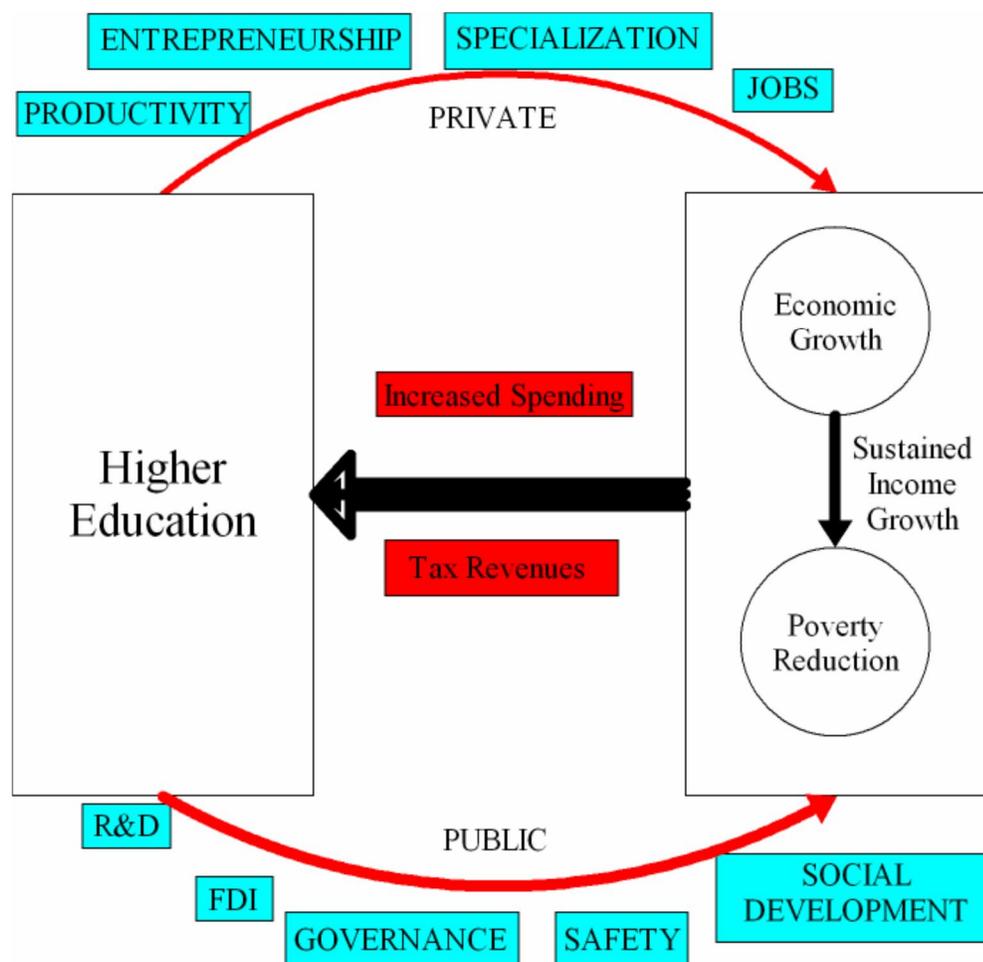
- How do Higher Education Institutions in Ghana contribute to the socio-economic development of Ghana?
- What identified factors inhibit Higher Education Institutions in Ghana from fully contributing to the development of Ghana?

## **2.0. Conceptual Frameworks on Higher Education and Development Relationships**

This paper is partly situated in the conceptual models developed by Bloom et al, (2005), Oketch et al (2014) and the four (4) pillars advocated by the OECD (2008) that seek to link HE to economic development.

The study by Bloom et al (2005) first analyses evidence about the impact that HE can have on economic development and poverty reduction in Sub-Saharan Africa. Their findings revealed that HE in Africa can assist countries with technological catch-up and thus improve the potential for faster development. According to the authors, HE can contribute to development in Africa through both private and public means. Good employment, higher salaries and the capacity to save and invest constitute the private benefits. Public benefits on the other hand also entail an increase in tax revenue for the government for social development, governance, safety, and research and development.

Figure 1 Conceptual framework linking HE to development (Bloom et al, 2005)



Source: Bloom et al (2005)

The framework developed by Bloom et al (2005) in figure 1 suggests various potential ways through which HE can contribute to socio-economic development.

The study by Bloom et al, (2005) according to Bawakyillenuo et al. (2013) explored two varied ways means through which HE in Africa could expand economic development. They include raising GDP through productivity and also increasing the rate at which a country adopts technology and advances its total factor Productivity. They established that a 0.24 percent increment in GDP would result from a one (1) year increase in the total stock of education in Africa. Furthermore, a one year (1) increase in HE stock would lead to an additional 0.39 percent increment in GDP thus leading up to a total of 0.63 percent growth from a year's increment in HE. A missing connection between HE institutions in Africa and industries was however admitted by Bloom et al (2005) who argued has resulted from the mismatch between the curricula of the universities and the increasingly growing knowledge and economic opportunities.

Oketch et al (2014) have also developed a conceptual framework that provides insight into the process through which HE contributes to development in low-income countries. This conceptual model draws on various theories relating HE to human capital development, endogenous development, capabilities, and institutional growth. Based on these theories, several pathways that lead to growth in five forms of outcomes were identified. These outcomes include earnings, productivity, technological transfer, capabilities, and institutions. (Oketch et al 2014)

They asserted that HE contributes to development through the combined effects of individual pathways whose end result is economic growth and development. The pathways relate to the core functions of HE and they include pathway through teaching, research and innovation; and through service which is also referred to as public service or the third mission. They asserted that although some HE institutions may choose to concentrate on just one pathway like teaching, others may include all of the three pathways to development in their intuitional missions.

With regards to the teaching pathway, the proponents of this model noted five (5) interrelated discrete sub-pathways that fall under it. These include sub-pathway through increased earnings of graduates; increased productivity; technological transfer; increased 'capabilities' of graduates, and through improved institutions. The teaching pathway lies on the supposition that graduates, who are outcomes of HE have an impact on development. According Oketch et al (2014), the teaching pathway has been largely influenced by the Human capital theory (HCT).

Concerning the pathways through research and innovation, the authors asserted that it has been largely influenced by the Endogenous growth theory. This theory involves the 'existence of positives' associated with new knowledge (Romer, 1986). This pathway to development suggests that HE contributes to development through the cultivation of new knowledge. Thus, both directly, through investment in research, and indirectly, through the training of qualified researchers (Romer,1990). The author further adds that the development in the advanced countries could be explained using the Endogenous growth theory. He, however, posited that he is uncertain whether the pathway through research to development is entirely applicable in developing countries because of the expensive nature of research and the fact that low-income countries might not have the financial resources to engage in complex researches.

The last pathway to development is the pathway through Service. This also doubles as the third (3) pillar of HE. As argued by Oketch et al (2014), this third stream or community engagement function of HE concentrates on the role of HE in the dissemination and interchange of knowledge. The pathway through public service is largely informed by the conceptualizations of HE as a public good. This pathway deals with the services universities provide to solve societal problems, especially in their catchment areas. Recently this third mission function has increasingly evolved into income-generating activities of HE institutions where knowledge is disseminated through research to government and industry.

In conclusion, Oketch et al (2014) posited that these pillars of HE that impact on developmental changes are not mutually exclusive. They added that the pathways to impact are complementary, as they only underline different roles of the university and the diverse facets of development.

Four key mechanisms through which HE contributes to socio-economic development have also been outlined by the Organisation for Economic Co-operation and Development (OECD) (2008). According to the OECD (2008), the following pillars must be exhibited before HE could be said to contributing to the development of a nation.

1. Human Capital development through teaching
2. Generation of Knowledge through research
3. Diffusion and usage of generated knowledge through interaction with end users.
4. The maintenance of knowledge through inter-generational storage and transmission of knowledge

### **3.0. State-Higher Education Relationship and Governance in Ghana**

It must be noted that HE institutions do not operate in a vacuum and thus cannot fully on their own add to national development goals. There need to be a concerted effort to design appropriate curricula that best serves the developmental needs of the country and this can only occur if there is a strong collaboration between the academic core, the government, and other stakeholders. It is important therefore to discuss the relationship between the government and HE as according to Maassen (2012), this pact is one of the vital factors that help universities to contribute to socio-economic development.

Clark's (1983) triangle of coordination explains the relationship between the state, academic oligarchy and the market. Clark believes that national systems of HE could either be at the ends of the triangle or could find themselves in the middle of opposing authorities of the state, the academic professionals or the market forces. Clark exemplified with some national systems of HE in his triangular model of coordination by placing the former Soviet Union, Italy, and the USA at the extreme ends of the state, the academic oligarchy, and the market respectively. There has however been a form of criticisms against Clark's triangle of integration for being outdated. The argument is that there are new forces which influence HE systems in addition to the state, the academic profession, and the market forces. A classic example of such force is the presence and contribution of external donors.

Van Vught (1989) also proposed two (2) steering strategies adopted by governments to control HE towards the direction of its goals. These models are the *rational planning and control model* and the *Self-regulation Model*. The *rational planning and control model* involves the use of government agencies and the application of strict rules and extensive control mechanisms. The *Self-Regulation model* is however mild and it focuses more on supervision where the government watches the rules being played by independent actors (Gornitzka, 1999).

To further understand the relationship between the state and HE in Ghana, four state steering models proposed by Olsen (1988) will be brought to the fore. These models are the *sovereign, rationally-bounded state model*; the *institutional model*; the *corporate-pluralist model* and the *supermarket model*.

*The sovereign, rationality-bounded state model* which is somehow related to the rational planning and control model constitutes stringent mechanisms through which national governments steer HE towards its development frameworks. It involves strict control over universities who are highly accountable to the political authorities. Change in HE normally takes place when there are changes in political leadership (Gornitzka, 1999).

*In the Institutional Model*, HE institutions employ means to protect their academic freedom and their institutional autonomy. In this model, institutions seek to protect their traditional values against the whims and caprices of political authorities and interest groups. This model is much exemplified by the relationship that existed between the state and the universities of old. According to Salter and Tapper (1994), as cited by (Gornitzka, 1999), there exist a form of unwritten laws of state non-interference between the state and universities. Change is evolutionary and occurs gradually with time (Gornitzka, 1999).

In the *corporate-pluralist state model*, the state role as a general overseer and sole actor in HE is challenged. This model assumes that there are numerous actors with legitimate claims in the affairs of HE. State monopoly of HE is highly debunked whilst recognising various centres of authority and interests. State influence is low here and changes occur when there are changes in power and interests (Gornitzka, 1999).

The last of the four state steering models is the *supermarket state*. This model also has minimal interference from the state and it's much similar to the state supervision model. The state's role is to provide the right conditions and environment for the market to thrive in HE. Changes in the environment determine the rate of change in HE (Gornitzka, 1999).

These models are of great importance to this paper because according to Gornitzka and Maassen (2000), state steering models are important frameworks for governments to steer HE. This is particularly vital if states through the ministry of educations are to guide HE institutions towards the developmental priorities of the state.

There are three semi-autonomous government regulatory agencies that steer HE in Ghana. These are the National Council for Tertiary Education (NCTE), the National Accreditation Board (NAB) and the National Board for Professional and Technician Examinations (NABPTEX). These regulatory bodies were set up by the Government based on the recommendation of the University Rationalisation committee (URC) which was tasked to provide a recommendation for HE reform in Ghana (Girdwood, 1999). A government white paper was issued based on this recommendation to reform HE and also to specify the roles the state has in HE governance. The government White

Paper, in addition, stressed the need for HE and the state to have strong relationships which can have a bearing on national development goals.

Based on the recommendation of the government White Paper, the NCTE was established in 1993 to coordinate the affairs of HE and advise the Ministry of Education concerning activities in the sector Girdwood (1999). In essence, the NCTE serves as a buffer and plays an intermediary role between the Ministry of Education and leadership of the various HE institutions. The NAB was also set up to accredit and also ensure that all institutions of HE and their study programs also meet national quality standards set up by the state. NABPTEX was also established to evaluate and certify institutions and professional bodies offering non-degree programs. Meeting national standards could be said to be the reason why these regulatory agencies of the state were set up to coordinate HE in Ghana.

HE governance in Ghana could be inferred to be that of the “Evaluative State” and also a surrogate of the rational planning and control model where state agencies are used to steer HE to national standards. In the context of Clark’s (1983) triangle of coordination too, the HE governance system in Ghana could be placed closer to the state in the middle of the state and the academic oligarchy. A relationship can, therefore, be established between the ministry and university leadership at the national level in Ghana however not strong they are.

#### **4.0. National Development Plans of Ghana**

Ghana has had many national development plans that dates back to the period before independence of which all of them sought to shape the path for development in the country. Ghana has in the past made some extensive initiatives to adopt and implement short to medium term development plans such as the 7-Year Development Plan for National Reconstruction and Development (1963/64-1969/70), and the Ghana Poverty Reduction Strategy (2001-2003). The Ghana Shared Growth and Development Agenda (GSGDA) II; the 2014-2017 plan was also launched by the National development planning commission (NDPC) of Ghana in December 2014 to guide national policies and programs towards a sustainable socio-economic development. The plan covers broad thematic areas such as human development, economic growth, rural development, and urban development. Ghana also has a development strategy called the Ghana Vision 2020. This is a medium-term development plan which began in 1996 and is due to end in 2020. The main aim of this plan is for Ghana to achieve a middle-income status by the year 2020. It must be noted that most of these plans have also recognized the need for HE to focus on the socio-economic development of the country. For example, Ghana’s Vision 2020 placed emphasis on science and technology, with the additional aim of making education more relevant to the socio-economic realities and national aspirations. The GSGDA I (2010-2013), and now the GSGDA II, also targeted infrastructure and promotion of connections with the industry. However, it has rather brought about the marginalization of HE in the absence of a long-term human development strategy; mismatch between educational output and the labour market. HE has thus struggled to be responsive to the demands of the economy. (Ghanaian Panel on Economic Development Report, 2016).

However, the outcomes of these plans have been somewhat unsuccessful as they failed to achieve their planned objectives (Abubakari et al 2018). Furthermore, the assessment of the development planning experience of Ghana also suggests that the execution of almost all plans was cut short mid-way during the planned period as stated by the Ghanaian Panel on Economic Development Report in 2013.

Due to the failures of the previous short to medium term development a plan, the NDPC of Ghana has launched a 40-Year National Development Plan in 2018. According to the NDPC, the new plan is a long-term development plan that spans from 2018-2057. The new long-term development plan proposes to address and implement issues such as; Spatial Planning, Petroleum revenue, population growth of the country, monitoring, and a national infrastructure plan. The plan also consists of four medium-term development plans (MTDPs) with a time span of 10 years (Abubakari et al 2018).

Many sectors in Ghana are thus mandated and expected to contribute to the realization of these national policies of which HE is no exception.

## **5.0. The Role of Higher Education in the Development of Ghana**

According to Mcain (1980), HE in Ghana before independence was aligned with the goals of the British colonial government. This supports the claim by Castells (2001:212) that almost all “*Third World Universities are rooted in the colonial past*”. The curricula then showed little concern to the development priorities of the country. University education according to Mcain (1980) was to get a government job, a good income and a high status in society. Though this could be argued to still be the case to some extent in Ghana now, it must be acknowledged that major changes have been effected in the curricula making it more relevant to the development needs of the country after independence from the British in 1957. The emphasis now has been put on science and technology education heralded by the establishment of the Kwame Nkrumah University of Science and Technology in Kumasi and other polytechnics and technical universities across the country. It is worth noting that HE in Ghana has now made some strides towards contributing to the socio-economic development strategies of the country. This change in the trend of the key roles of universities in Africa is also shared by Montanini (2013) who asserts that African HE after independence became important tools for nation building as they were a major source of human resources for leadership and public profession formation. Some of the roles of HE in Ghana thus include the following.

First, is Human capital development and capacity building through training and teaching pathways. It is in no doubt that HE plays a crucial role in training human resource to steer the affairs of the country. It is the graduates of HE institutions that form the core of nation-building. Human resource development is vital if the various institutions and resources of the state are to be effectively managed. It is no wonder that human and manpower development features in the development plans of the nation. Thomson (2008) believes that manpower development can serve as a catalyst in the development of a nation as it contains all the means through which individuals acquire the right skills, knowledge, and attitudes to effect changes and improve society. Training of skilled labor

force which constitutes one of the four basic functions of HE according to (Castells 2001) is thus key to a nation's development and it is in no doubt that HE institutions in Ghana are heavily involved in this training function. This human development need is recognized by the Ghana Education Strategic Plan (2003-2015) which states the importance of HE in the development of middle and top-level human resource needs. The Ghana vision 2020 development plan also recognizes the importance of technical and vocation education in training skilled workers of the country.

HE institutions in Ghana are also involved in generating research and innovation for national development. HE adds to development through the cultivation of original knowledge—both directly, through investment in research, and indirectly, through the training of qualified researchers. (Oketch et al 2014). Major developments in the OECD countries have all come to play because of the research and innovation capacities of their institutions. HE institutions in Ghana are not left out in this function however not big enough they are. The Institute of Statistical, Social and Economic Research (ISSER) in the University of Ghana, for example, is involved in carrying out development-oriented research whose results are disseminated to facilitate national development. An example has been their contribution to the economic development plans of Ghana over the years through their annual "The State of the Ghanaian Economy Report". There is also the Noguchi memorial institute which is also a research institute mandated to carry out medical research to combat and control certain diseases in Ghana. The institute has, for example, contributed to the national policy on malaria control and treatment in Ghana. Mention can also be made of the council for scientific and industrial research (CSIR) and the Kwame University of Science and Technology (KNUST) which are also involved in producing scientific knowledge for the socio-economic development of Ghana. It is important therefore to say that the research outputs of HE institutions in Ghana are very important in formulating national policies important for the development of the nation as all nations need research universities in shaping society as posited by Marginson, Kaur, and Sawir (2011). It must be noted however that research is very expensive and Lower-income countries like Ghana often may not have the required economic resources to fund adequate research in complex areas.

HE institutions in Ghana also play critical roles in regional and rural developments through 'Service'. It could also be referred to as the 'third mission', 'community engagement' or the 'public service' function of HE. As posited by Oketch et al (2014), the service function refers to all of the tasks of HE that fall beyond the spheres of the core teaching and research functions. An example is the 'land-grant universities' established in the US in the 1860s to purposefully contribute to development in areas such as agriculture, engineering, and business. The land-grant model as argued by Oketch et al (2014) encouraged the concept of 'developmental university' model of HE in many developing countries where they were responsible for contributing directly to development in their regions. According to Thomson (2008), development-oriented universities in addition to

empowering students, also engage in community-based research and developmental projects in their communities of abode

Certain development oriented universities and institutions have also been purposely set up to contribute to regional development in some deprived regions in Ghana. Key among these institutions is the University for Development studies established in the three northern regions in Ghana which are lagging behind in socio-economic development in the country. The university's main vision right from its inception is to generate solutions that will solve the socio-economic deprivation in the region. Thus, in addition to its basic functions of teaching and research, the university was also given an additional responsibility to enhance the development of its embedded localities through community engagement and the provision of direct services to their localities of presence. This is evident from UDS mission statement which states "Promoting equitable and socio-economic transformation of communities through practically oriented, community-based, problem-solving, gender sensitive and interactive research, teaching, learning, and outreach activities" (UDS Website). As revealed by (Jinbaani, 2015) the UDS, for example, is engaged in research collaboration with the Savannah Agriculture Research Institute (SARI) of the Council for Scientific and Industrial Research (CSIR) to improve agricultural yield in the region). In addition, the UDS also partners with the BRAC universities alongside other NGOs to test and apply their development-oriented research outputs (Thomson, 2008).

A university like the University of Mines and Technology in Tarkwa (UMAT) was also set up to contribute to the training of mining technicians and other middle-level manpower for the country's mining and related industries. It was specifically set up in Tarkwa, which is one of the gold mining hubs in Ghana.

HE in Ghana also plays a major role in the socio-economic development of the nation through increased productivity and earnings of its graduates. Graduates who constitute as outputs of HE to a large extent are able to secure employment which gives them the opportunity to increase their earnings leading The increased productivity, capabilities and earnings received by graduates as outcomes of HE also has an impact on the overall social development of the country. The state benefits by taking taxes from individuals who are working thereby expanding the economic base of the country which is the prime target in our development plans. What this implies is that HE outputs through graduates yield both private returns, as it profits its recipients through increased earnings, and also social return, as it benefits the national economy through economic growth, resulting from higher worker productivity. This is what Bloom et al (2005) elaborated in their conceptual model linking HE to economic growth and poverty reduction through both private and public channels.

HE in Ghana can thus to a large extent be said to contributing to the overall development of Ghana, if the contributions identified above are situated within the context of the four mechanisms through which HE contributes to development as advocated by the OECD(2008) and the conceptual model developed by Bloom et al (2005).

## **6.0. Factors That Inhibit the contributions of HE to the Development of Ghana.**

HE institutions in Ghana like many institutions across other developing countries are faced with certain challenges that affect their capacity to fully carry out their traditional mandate and their third mission of contributing to the socio-economic development of their regions.

### **6.1.1. Inadequate funding**

Inadequacy and the irregularity of funding is also a major issue that has constrained HE institutions in Ghana from fully contributing to Ghana's development. This is mostly reflected in the scantiness of earmarked research funding required by HE institutions to conduct research geared towards specific needs of the country. There are instances when even the book and research allowances of HE lecturers are delayed or are not paid at all. But the limited research support to the HE institutions forms a part of the general funding challenges being experienced by the institutions which Atuahene (2015) described as the biggest threat to HE in Ghana.

Historically, HE in Africa has also not had a lot of funding support from the World Bank. As indicated by Bloom et al (2005), HE in Africa has suffered from reductions in spending from the World Bank and their national governments which affected enrollment levels, and the academic research output in the region. A major contributing reason for advocacy by the World Bank on reducing investment on HE in the past was that per the World Bank's calculations suggested private returns to investment on HE was higher than the social returns (Oketch et al. (2014). In addition, the World Bank also did not see HE as a potential means of reducing poverty and enhancing socio-economic development, unlike primary education.

Currently, HE in Ghana still faces a lot of financing challenges although its roles in fostering socio-economic development are in no doubt worldwide. According to M. Duwiejua & E. Newman (2014), the HE sector experienced funding gaps in 2011,2012,2013,2014 which represented 39%, 79%, 42.9%, and 46.6% respectively. The funding gap constitutes the deficits between the amounts the universities receive from the government as against their actual expenditure requirement. Public funding to HE in Ghana in 2015 constituted to about 57% of universities financial needs out of which 99% of the allotted funding covers staff emoluments and salaries with the remaining 43% coming from private sources (NCTE Budget 2015).

The trend of diminishing public funding to HE as asserted by the NCTE has created a serious research competence problem in Ghana's HE institutions (Guerrero, 2014). Guerrero (2014) further asserted that it is rather donors who provide the bulk of funding allotted for research in Ghana. It must be noted that the absence of adequate external funding support has had a major negative effect on HEs' research capacity to contribute to development in Africa in general (Kruss et al 2015). A similar assertion has been made by the World Bank (2008) who also sites funding challenges as barriers that inhibit HE institutions in Africa from fully impacting on development.

### **6.1.2. The mismatch between HE Curricula and National Development Goals**

Another contributing reason for the mismatch between HE and development in Ghana is the nonexistence of a coordinated long-term national development plan. As argued by Bawakyillenuo et al. (2013), there are three (3) main legislative and regulatory instruments that provide direction for education in Ghana. These include the 1992 Fourth Republican Constitution of Ghana, the Education Act, 2008 (Act 778) and the Education Strategic Plan (ESP) 2010 – 2013. But as posited by Bawakyillenuo et al. (2013), Ghana has no all-inclusive HE policy that guides HE institutions to national development. This, they asserted has created discoordination between the foci of HE, industries and other sectors' policies of the country. What exists presently are a series of short to medium term development plans which have been constantly changed by respective governments over the years. This has in part contributed to their failures. The absence of a long-term national development plan means that the HE sector in Ghana lacks a clear sense of direction in terms of the production of needed research and human resources required for the nation's development (Bawakyillenuo et al. 2013).

Though, the NDPC of Ghana has launched a long-term National Development Plan that spans from (2018-2057) in 2018, the NDPC will have to refine the plan's implementation to include appropriate stakeholders from various political parties and other important sectors of the country including HE so as to achieve the plan's stated objectives and also to avert the somewhat failures of the previous development plans. The study by Bawakyillenuo et al. (2013) in their findings concluded that there is a mismatch between HE outputs and industrial development in Ghana. They added that this is due to the non-alignment of HE outputs with Ghana's industrial outputs, weak institutions or agencies charged with the responsibility of overseeing HE quality in Ghana, the lack of the coordination between national HE policies and national development plans and lastly, poor infrastructure in most HE institutions in Ghana. Dzeto (2014) also observed a similar case when he asserted that there is no linkage between industries and the Vocational and Technical Education in Ghana. Inappropriate curricula in relation to the essentials of the labour market have also been identified by the World Bank (2008). This, they argued leads to high levels of graduate unemployment. For example as asserted by Laing, (2013) most Ghanaian universities are churning out more human resource practitioners, marketers and administrators than can be engaged by the job market at the expense of the required skills that are in demand but not are not met by most of the technical industries in Ghana. Another reason for this as noted by Ghanaian panel on economic development report (2016) finds its roots in the semi-autonomous status of HEIs in Ghana. They asserted that because the institutions are made to partly finance their recurrent and capital expenditure, they offer educational courses which are in demand from students in order to raise revenue to finance their activities. The results of this mismatch they argued have a negative impact labour market, productivity, and development. These conclusions are consistent with the findings by Bloom et al (2005) who also acknowledged the mismatch in their study in Africa as a whole.

## 7.0. Conclusion and Recommendations

It has been the goal of this paper to unravel the roles HE plays in the socio-economic development of Ghana. A few roles have been identified in the context of the pillars advocated by the OECD (2008), Oketch et al (2014) and Bloom et al (2005) regarding the contribution of HE to development. Some of the identified roles include human resource and capacity building, regional development, research and innovation roles, and lastly the contribution to the economy and industries through HE graduates. It is worth noting that HE institutions have not received the needed support from both the government and international donors to enable them to contribute their quota effectively to the developmental goals of Ghana as expected. Issues such as the inadequacy of public funding and the lack of policy initiatives and a comprehensive HE policy in Ghana that could steer HE curricula to the national development priorities have also been identified as the factors that hinder HE in Ghana from wholly contributing to national development. The mismatch that as currently exists between the outputs of HE and the real development needs of the industries and the overall national development plans as revealed by Bawakyillenuo et al. (2013) was also discussed.

The study, therefore, recommends the development and the strengthening of comprehensive national HE policies that could coordinate the pact between HE and the development plans of Ghana. This can be done well by empowering the NCTE and other HE state agencies with the needed authority to ensure policy conformance of HE curricula to Ghana's development strategies. The state regulatory agencies should also make sure that HE institutions set up with specific mandates like the polytechnics don't deviate to run academic programmes for the sake of increasing their students and revenue generation. Universities with specific regional development missions like the University for Development Studies should also be supported adequately to enable them carry out their community engagement activities effectively. The study also recommends the introduction of funding allocation systems that rewards additional funding to HE institutions whose outputs reflect directly on national development goals. Such funding models for HE institutions could provide motivations that foster innovation and national research outputs. The study also suggests the establishment of a national research fund that provides competitive funding for research in the priority areas of Ghana's national development. There is also the need for other donor partners to collaborate well with HE institutions and the national government to fund educational research and projects that impact directly on the socio-economic development needs of Ghana.

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