EXPLORING STRATEGIC RESPONSES TO CHANGES IN PUBLIC UNIVERSITY FUNDING IN GHANA:

A CASE STUDY OF THE UNIVERSITY OF GHANA (UG) AND THE UNIVERSITY OF EDUCATION, WINNEBA (UEW)

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Abstract

Public HEIs' response strategies to the dwindling public funding in Ghana is an area of study that has received relatively little academic attention in the Ghanaian HE milieu. As a result, this thesis aims to contribute to both the theoretical and the practical discussions on the strategic actions adopted by public universities when faced with environmental pressures like public funding in Ghana which has undergone series of gradual but all in all major changes in recent times. It explores how the Ghanaian HE funding model has also evolved over time and how public universities like the University of Ghana and the University of Education, Winneba perceive and respond to it. It is a qualitative study with an embedded multiple case study design. The study also adopts Oliver's (1991) strategic response to institutional process as the analytical framework for the study. Using data from semi-structured interviews in two public universities and documentary evidence, the main findings reveal that the major source of HE institutional pressures emanates from a decrease in public funding which inhibits proper planning and the delivery of teaching, learning, and research. The findings also indicate that the HEIs have as a response implemented certain strategic actions to mitigate the impacts of the institutional pressure. Those actions identified include the enhancement of internationally generated Funds (IGFs) activities through the increment of tuition fees, the expansion of non-traditional sources of income generating activities, commercialization of research and educational services and the enhancement of university autonomy through acts of parliament. Reducing cost through efficiency and marketing also assumed greater strategies for the universities. The patterns of responses to the institutional pressures identified suggest a mix of **Acquiescence, compromise and avoidance** to the decreasing state funding pressure. The study concludes that although the HEIs continue to depend haplessly on the limited public funding, they are also actively involved in other diversified and alternative income generating activities where their institutional leaders have a greater influence in relation to attracting the required funding from the state. Responding and managing institutional pressures and in this context, public funding decline is undoubtedly one of the biggest challenges for Ghanaian public HEIs in recent times.

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Dedication

This master thesis is dedicated to my heartfelt parents; Mr. Joseph Ayisi Ayeh and Mrs. Comfort Agyare Ayeh and to my late Uncle Mr. Ayisi Samuel Lartey for their endless sacrifices, support and encouragement throughout my life and entire education. Finally, to my brother, Ayisi Eric, for his constant support and motivation towards my education.

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1 INTRODUCTION

The diminishing financial resources and the growing demand for participation remain the biggest threat to higher education in Ghana (F.Atuahene, 2015)

The response strategies that organisations employ to deal with changes in their environments have been of academic interest for many years, especially in the corporate world. Comparatively, relatively little attention has been paid to this issue in the public sector, HEIs included. It has been argued that organisations do not exist in a vacuum and that they interact with their environment in order to achieve their core mandates and objectives (Gornitzka, 1999). As posited by Fumasoli and Stensaker (2013) universities and colleges are deemed to be adaptive or reactive institutions responding and adjusting to external environmental demands. Some of these pressures or demands include higher education rankings, ICT revolution, as well as diminishing critical resources, especially financial resources, from the state, foreign donor agencies, and foundations. The issue of funding has, in general, become a great concern for many higher education institutions, academics, and national governments amid the recent global financial crisis coupled with the rising cost of higher education. This is because as succinctly argued by Powell and Rey (2015), the social contract or pact (Maassen and Olsen, 2007) that exits between the state and the public universities is changing. It has, therefore, become imperative for universities to develop effective strategies in order to handle the funding uncertainties they are faced with in the current turbulent environment. Paradeise et al. (2009) corroborate this by asserting the need for universities to adapt especially in this era of financial crisis due to the gradual decrease of per capita public investment in higher education in many countries. Those institutions that are unable to adapt quickly to their environmental changes can be expected to face major difficulties (Duderstadt and Womack, 2003). This is particularly true for higher education institutions in developing countries, including Ghana, as the majority of them are to a large extent dependent on national governments for their funding. Public universities in Ghana have long enjoyed substantial support from the state to support their basic functions and administration over the years. However, the government's funding support to the public universities in Ghana has dwindled over the years (F.Atuahene, 2015) despite a considerable increment in the country's' GDP and economic fortunes with the discovery of oil in 2008 and the stable nature of its democracy compared to other Sub-Saharan countries. It is thus of relevance to examine how the public universities are responding to changes in the funding relationship with the state, in

spite of the promise of the following provisions also in Article 25(1)c of the Ghana's 1992 constitution that states that *"higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular,* ***by progressive introduction of free education****"* and Article 38(1) which also states that *"the State shall provide educational facilities at all levels and in all the Regions of Ghana, and shall, to the greatest extent feasible, make those facilities available to all citizens"*. This study, therefore, explores the effects of changes in public higher education funding in Ghana and how the HEIs have strategically responded to these changes.

1.1 Research rationale

In Ghana, universities have experienced various changes in their external environment, stimulating responses from institutional actors with the objective of alleviating risks and taking advantage of openings. This has prompted research in the area of strategic management through the application of clear response strategies.

Whilst there is ample literature on HE funding and the financial challenges facing public HEIs in Ghana in the wake of dwindling financial support from the state, only a few studies have sought to empirically explore the strategic responses the public universities adopt in order to secure the needed funding for their operations. This study, therefore, seeks to explore the behavioral strategies adopted by public universities in Ghana in the light of the challenges posed by their ever-changing environment specifically funding. In view of this, the researcher wishes to investigate primarily the strategic institutional behavior being exhibited using the University of Ghana and the University of Education as the empirical case studies.

1.2 Objectives and significance of the study

The objective of this study is to explore and identify how public higher education institutions funding relationship with the state is handled and the strategic choices that are made as a response to this funding pressure emanating from the environment. The researcher, therefore, intends to investigate the public funding of Ghanaian public universities and the institution's responses thereof due to the fact that funding is an important component for any successful tertiary education system across the world. Basically, this research draws its significance from the recognition of the overall funding challenges faced by the majority of public universities

in Ghana. It is also significant because as an academic study, it will contribute to a better understanding of the institutional level strategic responses and the various revenue generation strategies of public higher education institutions in Ghana. This study will also add to the understanding of how environmental conditions like external funding can influence institutional strategic behavior and choices within the enclaves of the Ghanaian public universities. This study could also assist in creating awareness about the financial difficulties being faced by public universities in Ghana and how they are responded to which could also help shape government policies to that effect. All in all, this thesis could contribute to the scanty literature of understanding strategic behavior in the Ghanaian HE sector and also the broad area of strategy in university governance which has received relatively little research attention (Musselin, 2007). To be able to achieve the above-stated research objectives, the study aims at answering the research questions stated below.

1.3 Research Problem and Research Questions

Based on the above considerations the following overall research problem will be addressed in this thesis:

"How have universities in Ghana responded to changes in their public funding environment?"

The following research questions were derived from this overall research problem:

1. How has the funding relationship between public universities in Ghana and the state developed since 1990?
2. What are the main income generating strategies developed and implemented by public universities in Ghana as a response to changes in their funding relationship with the state?
3. What influence does the public university leadership have on the institutional funding relationship with the state and on the institution's income generating strategic responses?

The first question aims to examine and investigate how the public funding of HE in Ghana has changed and evolved over the years to its current state. This question will be answered through a review of literature as well as empirical data identified during the data collection process. The second question seeks to inquire about the strategic actions of the public

universities towards the public funding environment and government policies towards HE funding. This question will also be addressed by examining current practices of revenue generation strategies by the public universities in Ghana. Patterns of strategic responses will also be discussed in relation to the model of Oliver (1991). The last question also addresses the capacity, contribution and the involvement of public HE institutional leadership in handling and responding to their institution's funding relationship with the state.

1.4 Scope of the study

The subject of study is limited to public HEIs in Ghana. It focuses on the University of Ghana and the University of Education, Winneba, which are both public higher education institutions with state funding within the Greater Accra and the Central Regions of Ghana respectively. It is also limited to the study of the strategy responses of the public universities towards state funding in Ghana.

1.5 Study limitations

This study has thrown light on the variety of response strategies that UG and UEW are employing to respond to the current public funding challenges they are faced with. However, there are a number of limitations that this study has encountered and thus needs to be brought to the fore. First, time and capacity constraints have limited the study to only two public Universities in Ghana out of about 10 public universities who are also going through similar funding challenges from the state. This represents a small sample. Furthermore, because of time limitation and difficulties in reaching intended interviewees, the researcher was unable to conduct more interviews that could have helped to gather more data thereby limiting the study to only 4 interviews. Also, the researcher was not able to interview top university administrators i.e. the vice chancellors due to their unavailability at the time of the data collection in Ghana. Again, the researcher was unable to conduct a scheduled interview with an official from the Ghana Ministry of Education but was rather redirected to the NTCE. However, this was somehow made up with a secondary interview response from an official from the ministry which the researcher finds it useful to apply to this study though it was a response to different questions posed by a different researcher. Lastly, the researcher was unable to access the current budget of the University of Ghana thereby limiting that part of the

study to only the interview data from the institution's respondent and other literature on the university's funding.

1.6 Structure of the thesis

The study is divided into six chapters. The first chapter is the background and introduction to the study. This chapter includes topics such as the statement of the problem, the purpose and the objectives of the research study as well as highlights of the scope of the study. The second chapter focuses in general on the context of the study. It includes a short description of the cases as well as the higher education landscape and the public funding of higher education in Ghana. The third and the fourth chapters of this study addresses issues of the literature review, analytical framework and the methodology employed for this study respectively. The fifth chapter centers on the analysis and discussion of the findings of the study. The last chapter presents the conclusions, various recommendations, and avenues for further research.

2 EMPIRICAL CONTEXT OF STUDY

This section presents the background information of the two public higher education institutions under study i.e. the University of Ghana (UG) and the University of Education, Winneba (UEW) and the Higher Education (HE) system in Ghana in general as well as higher education financing. First, the description of the study's university cases is presented. The next section of this chapter then sets focus on the general background of the higher education landscape and then lastly, specifically on the historical and contemporary overview of higher education funding in Ghana.

2.1 Case Studies;

2.1.1 Profile of University of Ghana

The University of Ghana, which is Ghana's premier and largest university, was established as the University College of the Gold Coast by ordinance on August 11, 1948, by the colonial British Government in association with the University of London. It was set up following a recommendation by the Asquith Commission on Higher Education in the then British colonies which was also constituted in 1943 (Bailey, Cloete, and Pillay, 2010). During the 1960-61 academic year, the College Council made an application to the government of Ghana for legislation to constitute the university college into a university with the authority to award its own degrees. The University of Ghana was established by an Act of Parliament on October 1, 1961 (Act 79) based on the recommendation by an international commission set up by the government to look into the request made by the college. Dr. Kwame Nkrumah, who was the president of Ghana at the time, became the university's first chancellor, with Nana Kobina Nketsia as the (interim) vice-chancellor (Bailey, Cloete, and Pillay, 2010). The University was set up mainly to provide tertiary education, through teaching, learning and research. The school's vision as stated on its website is *"to become a world-class research-intensive University over the next decade".* Its mission also states that "*We will create an enabling environment that makes the University of Ghana increasingly relevant to national and global development through cutting-edge research as well as high-quality teaching and learning*"(UG website)

Presently, the university runs a collegiate system composed of the College of Basic and Applied Science, the College of Education, the College of Health Sciences, and the College of Humanities. The university also has three campuses spread out across the capital, Accra. The campuses include the Accra City Campus, the Legon Campus, and the Korle Bu Campus. The university now has a student population of about 38,000 from about 70 countries and comprises of students enrolled in its regular programmes, sandwich programmes, distance education students and lastly students from its affiliated institutions.

Governance-wise, the university is led by a vice-chancellor, two pro-vice-chancellors and a registrar, directors of finance, academic affairs, and planning and management information services, as well as provosts of colleges, deans of schools and faculties and directors of centres.

2.1.2 Profile of University of Education, Winneba

The University of Education, Winneba (UEW) is a recently set up university established by the University of Education, Winneba Act 2004, (Act 672) on May 14, 2004. The University was initially established by PNDC Law 322 (1992), in 1996 as University College of Education, Winneba (UCEW) through the merger of seven long-standing, diploma-awarding institutions before it was later upgraded to a full university status. The amalgamated institutions include the Specialist Training College (STC), the Advanced Teacher Training College (ATTC), the National Academy of Music Education, College of Special Education – Mampong Akwapim; St. Andrews Agricultural College, Mampong-Ashanti and the Kumasi Advanced Technical Teacher College (KATTC), Kumasi.

The university currently has four interconnected campuses. The first is situated in Winneba, and it houses the head office and also serves as the main campus. The Winneba campus is spread over three locations (North, Central, and South) within the Metropolis. The Principal Administration is placed at the North Campus. The other three campuses are located in Kumasi, Mampong-Asanti and Ajumako. Additionally, the university also has twenty-seven distance education (DE) study centres. The UEW is an education-oriented institution whose vision is to "*become an internationally reputable institution for teacher education and research"*.

The University's mission is also to "*To train professional teachers for all levels of education as well as conduct research, disseminate knowledge and contribute to educational policy formulation and development".* As at 2015, the university had a student population of about

58,038 which comprises of it's fulltime, distance learning, sandwich and part-time students. It also has a staff strength numbering up to 2,362. The University currently has 47 undergraduates, 70 postgraduate and 19 Certificate & Diploma programmes.

In terms of governance, the school is headed by a University chancellor, a vice-chancellor, and a pro-vice-chancellor. They are followed by Principals who head the university's College of Languages Education, Ajumako, College of Agriculture Education, Mampong, Principal, College of Technology Education, Kumasi. The Registrar, University Librarian, and the finance officer, in addition, complete the officials at the apex of the school's organizational chart and hierarchy. The UEW being a public organization in Ghana receives about 50% of its annual budget from the central government through subventions and grants. According to the university's 2015 budget statement regarding its sources of income, government subvention constitutes to about 44.17% of the university's income out of which about 95.7% is spent on employees' salaries and compensation. Student fees amounted to 43.84%, non-student's fees represented 7.7%, grants from Ghana Education Trust Fund (GETFUND) was 2.36% and donor support formed about 1.91%. With regards to its expenditure for the same year, the university spent about 43.66% of its total income on the compensation of employees, 34.25% on goods and services and lastly 22.09% on its assets and investments.

HISTORICAL AND CONTEMPORARY OVERVIEW OF THE HIGHER EDUCATION LANDSCAPE AND FUNDING IN GHANA

Notwithstanding the numerous challenges facing higher education in Ghana, it would not be an over-statement to posit that the core cause of most of the difficulties advanced in the literature of challenges facing higher education in Ghana is the deficiency of financial resources. In Ghana and other African countries, the inadequacy of institutional funding greatly affects academic progress. As stated by Holm-Nielsen (2001: 5), "The fiscal constraints experienced [by institutions] in recent years have further challenged their financial capacity to carry out further expansion of the public tertiary education system while maintaining satisfactory levels of quality". It is thus no cliché that good funding is needed to boost both academic and infrastructural development in the higher education sector but the reality is that these are woefully inadequate in the Ghanaian context. It is important to state therefore that this remains the focal object of this study as well the strategic responses from the universities to this funding pressure.

A brief history by the Ghana Education statistics (1965/1966) indicates that the first schools in Ghana, the then Gold Coast were established by the Dutch and the Danes in around 1644 and 1727 respectively of which most of them were as a result of missionary activities. However, the first higher education institution in Ghana was established in the year 1948 by the British and was named the University College of the Gold Coast which is currently called the University of Ghana. This was followed by the period after 1961 when national universities were set up by the independent government to offer programs with local contents. These new sovereign universities also had 'special relationship' with some selected local institutions and industries. The Kwame Nkrumah University of Science and Technology (KNUST) formerly the Kumasi College of Technology was the first to be set up by an Act of parliament on August 22, 1961(Daniel, 1996). This was followed up by the setting up of the University College at Cape Coast in December 1962 and was affiliated to the University of Ghana to train more professional teachers for the country (Effah, 2003). It was later upgraded to full autonomous university status in October 1971 as the University of Cape Coast. This was followed by the setting up of the University of Development Studies and the University College of Education in Tamale and Winneba respectively in 1992.

What the above historical data means it that, Ghana has been providing higher education to its populace since the late 1940s with the setting up of the aforementioned schools by its colonial government and the subsequent national universities. During that period, the government was the major funder of higher education in the country with an enrollment of students in tertiary education around 1100. According to Lener (2003) for example, the students that enrolled at the University of Ghana between 1972 and 1973 were about 2530 and all these students were fully funded on scholarship by the government. Below is a table that depicts some enrollment figures in Tertiary Education from 1951 to 1959 compared to later dates in history.

Table 2.1 Enrollment Numbers

Years Tertiary Education	1951	1957	1959
Technical	622	3057	2782
Teacher Training	1916	3873	4274
University	208	783	1134

Source: Ghana educational Statistics 1968.

Table 2.2 Universities Enrolment 2013/2014

Institution	Enrolment
Public Universities	89435
Public Special Universities	11636
Private Universities	65437
Total	166508

Source Ghana Education Service Webpage

Comparing the enrolment figures in table one and table two depicts a vast increment in student enrolment in tertiary education in Ghana from the 1950s and the 1960s to the student enrolments in recent years. This has continued to rise as enrolment figures from the National Council for Tertiary Education (NCTE) also show that enrolments in public HEIs increased from 52 712 in the 1999/2000 academic year to 283 506 in the 2012/2013 academic year. Again, between the academic years of 2001/2002 and 2007/2008, enrolment in public universities increased by 103%. Presently, there are one hundred and eighty-seven (187) tertiary institutions accredited by the National Accreditation Board as at 31st March 2015 according to the National Council for Tertiary Education. The tertiary education sector largely consists of all post-secondary educational institutions in the country. Total enrolment into these institutions in the 2013/14 academic year stood at 318,607.

Below is a breakdown of the tertiary education institutions in Ghana as at 31st March 2015.

Table 2.3 Higher Education Scene in Ghana

Institution	**Number**
Public Universities	9
Polytechnics	10
Public Degree Awarding Institutions	6
Private Tertiary Institutions	63
Public Colleges of Education	39
Private Colleges of Education	7
Regionally owned Tertiary Institution	1
Tutorial Colleges	11
Public Colleges of Agriculture	3
Public Nursing Training Colleges	19
Private Nursing Training Colleges	5
Registered Foreign Institution	14
Total	**187**

Source: National Council for Tertiary Education (2015).

What this means is that the cost of providing tertiary education has also increased tremendously with the increment in student enrolment placing much pressure on the government to meet its rising cost and demands. As noted by SAPRI (2001), in a study titled "The Impact of Structural Adjustment Program on Access to and Quality of Tertiary Education", there has been a total decline of government funding in tertiary education in Ghana i.e. on Full Time Equivalent (FTE) and at the same time an equivalent increase in students' enrolment level in the tertiary sector of about 80% enrolment rate. The Education Sector Performance Report (2013) for example stated that

"*Spending on education continued its increasing trend in 2012, with a total expenditure of GH¢ 6.0billion in 2012, up from GH¢3.6 billion in 2011. In 2012 education expenditure was equal to 8.4% of GDP. The largest source of funding is the Government of Ghana (76% of all funds), however of this 97% is allocated to compensation, leading to heavy reliance on other sources to pay for goods and services and assets, which make up 21% and 5% of total expenditure respectively"* (Education Sector Performance Reports, 2013, p. 91). The report stated further that,

"*Total expenditure on education in 2012 was GH¢ 6.0billion, representing a 69% increase from GH¢ 3.6billion in 2011. This increase in total expenditure has risen faster than GDP, meaning that expenditure on education as a share of GDP has increased from 6.3% in 2011 to 8.4% in 2012. Education expenditure also grew as a proportion of all Government spending, from 25.8% in 2011 to 28.8% in 2012"* (Education Sector Performance Reports 2013, p. 92). Generally, the cost of education in Ghana has grown to about 30% of Ghana's expenditure from 2009 to date making it difficult for the state to finance education alone. This means that the universities and the students themselves have to bear a part and share the cost involved in providing higher education hence the introduction of cost sharing in order to improve and widen access to tertiary education. A Ghana government White Paper (1968–1988), on the funding of higher education, affirmed that the costs for tertiary education would be shared among the government, students and a private system that would be brought onto the scene with the aim of maximizing income creation for the tertiary education sector. The White Paper again postulated that students would be liable for their own maintenance and subsidiary expenditure. The government financing of higher education, according to the White Paper, would be provided in the following way: the government would provide equipment and capital grants to institutions through the educational ministry (Ghana Government White Paper, 1968). However, it is surprising to note that when tertiary education first began in Ghana, the state solely provided for the institutions funding for five (5) years in advance to fund physical development, payment of staff emoluments and funding of administration, goods and service disbursements. According to Chambas (1998), students in the tertiary institutions were in addition given allowance meant for living expenses by the government. But as the years went by, this reduced to three (3) months in advance and currently it is one (1) month in arrears. Capital expenditure which also used to be funded by the government was also neglected until the creation of the Ghana Education Fund (GETFUND) which is a special fund meant to cater for capital expenditure of educational institutions in Ghana (Adu, 2015). Some researchers have argued that the beginning of the changes in tertiary education funding was due to the introduction of the International Monetary Fund (IMF) and the World Bank's structural adjustment program in Ghana in the 1980s which encouraged the government to reduce public expenditure hence the reduction of subsidies on higher education. (Ghanaweb,2005).

Public funding to Tertiary Education in Ghana currently constitutes to about 57% of universities financial needs out of which 99% covers emoluments and salaries with the

remaining 43% coming from private sources (NCTE Budget 2015). This is a shortfall to the 70% government funding, Students/parents – 10%. Industry – 10%, Institutions – 10% cost sharing arrangement that was agreed with the university stakeholders in Akosombo (Report on National Forum on Funding Tertiary Education, Akosombo, January 27-28 1997). According to (Adu, 2015), this agreement never materialized. He further stated that, apart from funds meant for salaries and emoluments, public funds allocated to the HEIs are not based on actual or real funding needs of the institutions. Currently, the government expenditure on education from 1999 to date constitutes to about 23.7% of the national budget out of which an average of 19.1% goes to the higher education sector (M. Duwiejua & E. Newman 2014). Even that the government is not able to meet the full estimated budget that the universities agree upon with the state. According to the NCTE budget (2013), the approved budget for the universities by the government stood at GHC490,619,775.52/$109,996,953.78. Meanwhile, the actual expenditure of the tertiary sector was GHC 862,007,664.48/ $193,055,236.43 thereby creating a variance of GHC 371,387,888.96/$83,176,031.62 according to the 2013 budget. What this means is that the institutions had to depend on other sources of funding to meet their recurrent expenditures aside the government subvention which represented 55.4%. The approved actual expenditure of the tertiary institutions included the compensation of employees, goods and services and fixed assets.

The NCTE again in 2015 pointed to a funding gap of about 60% which entails the gap between the amounts the universities receive as against what they actually need per student.

Table 2.4: Funding gap based on ncte cost - 2015

Source	No. of Students	Required Cost per Student GHS	Funding Requirement GHS
Universities	138,414	22,457	3,108,424,715
Polytechnics and others	100,843	17,966	1,811,740,856
		Total Funding Requirement	**4,920,165,571**
		Total Expected Revenue from Govt	**1,971,274,109**
		Funding Gap/Deficit (GHS)	**2,948,891,462**
		Funding Gap (%)	60

Source: NCTE Budget 2015

Similarly, according to M. Duwiejua & E. Newman National Council for Tertiary Education, Ghana (2014), the tertiary sector also experienced funding gaps in 2011,2012,2013,2014 which represented 39%, 79%, 42.9%, and 46.6% respectively. To basically sum the issue of funding difficulties up, the average annual dollar value of the government subsidy per student paid to the universities decreased from $2,360 in 1991 to $566 in 2000, a drop of nearly 75 per cent according to Addae-Mensah (2001).

Funding has thus become a major issue for the tertiary education sector although the government supports them through government subventions. This has become an issue because of increment in the actual recurrent expenditure of the universities which the government is unable to meet. A contributing factor is an increment in students' enrolments and its associated infrastructure demands. According to the world bank, the Gross Enrollment Ratio (GER) in Ghana which is the ratio that determines the percentage of the population of the country aged between 19 and 25 who are in tertiary education as at 2013 was 14.33% compared to the average for sub-Saharan Africa which was 8.02%**.** Again, the irregular release of funds approved has also aggravated the funding pressure on the universities. For example, as at December 2012, only four months government subvention meant for the

expenditure for goods and services out of the whole year had been released (NCTE budget 2013). An institutional leader at the University of Ghana as stated in the HERANA project also admitted to the irregular flow of government financial support to the university (Bailey, Cloete, and Pillay, 2010). Thus inadequacy and irregularity of funding is also a major concern. Additionally, this problem is compounded by the fact that Ghana uses the incremental and negotiated budgeting approach of funding of higher education institutions which also gives little room for planning and changes in the activities carried out by the universities during the year. Concerns have also been raised about this line-item and incremental budgeting system in Ghana because it is not tied to any specific output and performances and also it hinders innovation. As stated by Sawyer (1994), the funding allocation process starts with the capital and recurrent expenditure estimates of the year of the universities being defended at the Ministry of Education on line-by-line basis after which they were sent to the MOFEP for approval. Basically, this criterion for defining the level of state funds for higher education in Ghana is not student-centered and it is also blurred (M. Duwiejua & E. Newman National Council for Tertiary Education, Ghana (2014).

In conclusion, it must be stated however that this problem of limited state funding to public universities is not peculiar to only Ghana but rather a trend in Africa in general. As reported by Materu (2007), the World Bank Edstats (2008) states that public spending on higher education in Sub Saharan Africa declined about 28% between 1980 and 2002. It stated further that, the expenditure per each student also dwindled from about US$6,800 in 1980 to US$1,200 in 2002 and by the turn of the year 2004/2005, the average expenditure per student in 33 sub-Saharan countries was US$981. The World Bank explained in a report that the financial difficulties experienced by many African and developing countries with respect to higher education are based on four main reasons. The report continued that the causes include the increased cost of the unit of higher education, the pressure of student enrolment, the scarcity of public funds to support tertiary education and lastly the political structure of the country (World Bank, 1994).

The conundrum of HE funding in developing countries and its attributed pressures on HEIs could basically be summed up the assertion of Lewis (2000) who posits that whiles the enrollment of students have somewhat tripled over the last two decades in developing countries, the quantum of public funds allotted to the sector of higher education has however only be improved from about 15%to 20% only. This means that the increased enrolment in

HEIs in developing countries hasn’t been matched up with the investment that has been made in the sector over the years. What this implies is that the onus now lies on these HEIs themselves to adopt the appropriate strategies in response to this phenomenon in order to acquire their needed funding to save them from extinction and enhance their survival.

3 LITERATURE REVIEW AND ANALYTICAL FRAMEWORK

According to Marshall and Rossman (2006; 43), a literature review refines and redefines the research questions by embedding them in larger traditions of inquiry. A great body of literature has been produced on the subject of the environmental conditions under which universities operate and how these changes in the environment could necessitate strategic responses needed for survival. This section, therefore, presents a review of the strategic responses and choices of universities in reaction to environmental changes for which funding is no exception. It starts with an overview of the definition of the main concepts, that is, funding and strategy, in this study. This section also includes discussions of literature on universities as strategic actors, organizational change and strategies, the higher education environment/organizational field as well as discussions of the relevant theories underlying organizational change which serve as the foundation for the study and the analytical framework focusing on organizational response to institutional processes (Oliver 1991) which will be discussed further in the next chapter of this study. This section finally concludes with a review of the literature on HE funding.

3.1 Definition of Key Concepts and Terms

The operationalization of a concept is very significant to the internal validity of any successful study. Neuman (2006, p.184) defines operationalization of concept as moving from a construct's conceptual definition to specific activities or measures that allow a researcher to observe it empirically. The two major concepts to be employed in this study are 'strategy' and 'public funding'. The section below will give a brief account of how both concepts are adapted and applied in the context of higher education and specifically to this study. Although both concepts were used in the study, one takes more center stage than the other. The concept of 'strategy' is more central than that of 'funding' since the study is focused more specifically on the strategic behavior of public universities towards their funding relationship with the government of Ghana.

3.1.1 The Concept of Public Funding

Public funding of HE has been variedly defined by various authors to reflect how public universities are financed from the share of the national coffers. Jongbloed & van der Knoop (1999), for example, argue that universities just like any other public institutions need a share of the state's GDP mostly in the form of government grants or loans in order to survive in exchange for educational services. However, the definition most suited to this study is the one given by Salmi and Hauptman (2006). They argue that public funding of HE or governmental allocation is in two folds. First is the funding of students through government scholarships and other student loan schemes. Second, which th study adapts, is the direct public funding of public institutions meant for specific purposes and educational projects, the funding for teaching and research and block grant funding allocations (Salmi and Hauptman 2006).

3.1.2 The Concept of Strategy

Strategy as a concept is important to organisations and thus has been widely studied across many sectors. Chandler defines strategy as '*...the determination of the basic long-term goals and objectives of the enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals'* (Chandler 1962, p. 13). To Porter (1998), strategy is about ways through which organisations try to achieve competitive advantage. Mintzberg (2007) also believes that organisational strategies should be seen as the way organisations engage in somewhat opportunistic transactions with a continuously changing and uncertain environment. Broadly and more adaptive to the focus of this study is the definition by Hofer (1973, p. 3) who states: *'strategy is concerned with the development of a viable match between the opportunities and risks present in the external environment and the organization's capabilities and resources for exploiting these opportunities'*. Accordingly, Ansoff and McDonnell (1990) also describe strategic response as changes in organisations strategic behavior meant to achieve success in a changing environment. Organizational strategies can be considered as tools that help universities manage their organizational processes. Simply put, it has been described as a way of handling the environment **(**Fumasoli and Lepori 2010).

Although different researchers present different definitions of strategy, the concept 'strategy' as applied in this study encapsulates the formal and the informal university behavioral responses as well as their intentions, actions, and inactions towards pressures from their environment including but not limited to public funding from the state.

3.2 Higher Education Institutions as Strategic Actors.

The adoption and application of strategy as a tool in higher education continues to divide opinion in the higher education literature. This is because the notion of whether universities by themselves are able to produce their own strategy is not so clear in the discussions of higher education literature and has thus become a controversial issue to deliberate upon (Fumasoli & Lepori, 2011). The concept 'strategy' in HE literature is not synonymous to only the present times we live in but to the past as well though its application and use has been questioned because of the complex and fragmented nature of universities (Musselin 2007). As noted by Bonaccorsi and Daraio (2007), the idea of higher education strategy first emerged in the US higher education field between the 1970s and the 1980s as a response to the financial crisis of most American HEIs. They continued further that the notion of strategy as conceptualized in the American context was a peculiar form of university governance mainly about the roles and visions of university presidents. Oliver (1991) and Scott (1995) however generally conceived the concept of strategy as a reaction or adaptation to environmental pressures. Its usefulness to the field of higher education as evident in most literature is based on strategic planning and as a business practice transferred to higher education, has garnered many supporters and in equal measure oppositions as well (Maassen and Potman,1990). Whitley (2008) argues that public universities in recent times have had to mimic some practices and formal structures of business entities and develop strategic autonomy because of the contemporary funding challenges. Whitley (2008), however, contended that the development of strategic autonomy is contingent greatly on the policies of the central government and the availability of resources accessible to the universities. Proponents and advocates of new public management have also pushed for its application in university governance because of its assumed implication for management systems as exhibited mostly in the business field. Others like Krucken and Meier (2006) whiles considering universities as formal organisations also conceive strategies as a tool of change that can be used by management. Similarly, strategy has also been considered as an instrument which organisations could use to achieve their desired objectives with limited resources within an increasingly competitive environment (Bonaccorsi and Daraio 2007). It can, therefore, be inferred from the literature that strategy is deemed as a useful instrument of change that organisations could apply to survive in their institutional environment.

However, the notion of strategic behavior of universities has been criticized according to Bonaccorsi and Daraio (2007). They argued that universities are partially old institutionalized institutions with weights of tradition that limit their scope for discretionary strategic deliberations. Meyer and Rowan (1977), as well as Zucker (1988), also believe that universities should rather be described as institutionalized organisations than as strategic units. Authors like David W. Leslie have also questioned strategizing in universities because of their loosely coupled nature and how they have been described as specific organisations (Brunsson and Sahlin-Andersson, 2000). He argued further that universities by their nature do not have enough centralized intelligence to impose a standardized strategy throughout their numerous constituents. The slowly evolving nature of universities also inhibits the successful application of strategy according to the institutionalists (Fumasoli & Lepori, 2011). Similarly, various authors have also pointed to the differences between higher education institutions and businesses and have therefore also questioned the successful applicability of a business instrument like strategy to higher education (Van Vught 1989; Schmidtlein and Milton 1989; Kelly and Show 1987). On the other hand, it has been argued that strategy to some extent does pay off for some organisations in some situations (Huff, Huff, & Thomas, 1992) especially where the organisations' survival is threatened and dependent on such strategy. Universities should, therefore, be perceived as specific and goal-oriented organisations that should be able to make their own strategic choices and decisions and be responsible for them (Krücken & Meier 2006) as a response to their erratic environment that faces them in recent times. But Gornitzka et al. (2007) posit that this can be realized only when the universities are given the required autonomy to make those strategic choices within their environment. Whitley (2008) has also given two collective capabilities which universities ought to possess to become strategic actors. He argued that the universities first need to have *discretionary authority over the acquisition, use, and disposal of human and material resources and secondly to generate particular kinds of problem-solving routines and knowledge that are organization-specific* (*Whitley* 2008). In essence what both authors tried to imply was that the universities' ability to act as strategic actors largely hinges on their autonomy which basically depends on the structure and policies of their nation states regarding university autonomy. Differences across university autonomy in different nations thus affect and influence how universities respond to changes in their environments and act strategically (Whitley 2008). It is also important to mention various different, though not mutually exclusive strategic models that have been identified in the strategy literature and

have been applied in higher education. These models have been summarized by Chaffee (1985, p. 147) as follows "*In linear strategy, leaders of the organization plan how they will deal with competitors to achieve their organization's goals. In adaptive strategy, the organization and its parts change, proactively or reactively, in order to be aligned with consumer preferences. In interpretive strategy, organizational representatives convey meanings that are intended to motivate stakeholders in ways that favor the organization".* But it must be noted that though most authors writing on strategy in higher education have used all three models discussed by Chaffee, much emphasis have been placed on the adaptive model which basically deals with the fact that organisations are open to the environment and must change with the environment (Maassen and Potman, 1990). In summary, some reasons have been given for the importance of organizational strategy in higher education by its advocates. As posited by Fumasoli & Lepori (2011), the reasons include first, the emergence of new steering models of university governance that give institutional autonomy to universities (Ferlie et al. 2008). Second, the reforms of new public management which require strategic planning that have been introduced in higher education administration (Maassen and Potman 1990). Lastly, (Maassen and Potman 1990) posited that strategy has become relevant in higher education institutions because of the pressure on universities to chart their own paths partly because of international and national competition that exists between and among universities in addition to the pressures of performance-based funding models (Bonaccorsi and Daraio 2007).

3.3 Resource Dependency Theory

The resource dependency theory is of relevance in the discussions of organisations and their relationships with their environment. It has proven very important in studying organisational actions and behaviors across many academic fields. Its relevance to this study is captured by the assertion made by Oliver (1997, p. 700) that "firms make economically rational choices that are shaped by the economic context of the firm". The starting point of this theory is that it stresses that most organisations are confronted with multiple and somewhat different demands and expectations from numerous external actors (Pfeffer and Salanick, 1978). The resource dependency theory main focus is on the task environment, i.e. those aspects of their environment that control scarce resources. They emphasize the exchange and resource flows between organisations and their environment. The resource dependency theorists emphasize

the importance of organisations adapting to their environment because of the uncertainties that exist and also for the fact that they need to manage their critical resource flows from the environment. They also focus on various behavioral actions that organisations could employ in order to control and manipulate these external interdependencies in charge of their scarce resources (Pfeffer and Salanick, 1978).

Resource dependency theory's two basic assumptions according to Gornitzka (1999) are that organizational actions are limited by external pressures and demands and also that organisations must be reactive in order to survive. Basically, the resource dependence theorists center on the need for organisations to adapt to the environment as well as actively managing their vital resource flows through the exercise of control in order to reduce their environmental uncertainties (Oliver, 1991). Resource dependency theory (Pfeffer and Salancik 1978; Pfeffer 1982) as indicated by Gornitzka (1999) shares a similar assumption with the open system theory about the flexible nature of organisations which make them adaptable to changes. However, she added that the resource dependency theory departs from the open system theory by indicating how organisations may act strategically to control those parts of the environment they rely on that control their critical resources. These assumptions of the role of *active agents and strategic choice in organizational response to environmental change* as stated by Gornitzka are the perspectives the resource dependency theory brings to institutional theory. The researcher further argued that the relationship between government and universities in addition to the internal dynamics of these universities are important when analyzing a university's strategic responses to its environment. The importance of organisations' adaptive abilities and institutional leadership capabilities to make strategic choices is also deemed relevant when examining how organisations act to control and manage their relationship with those parts of the environment they are reliant upon (Gornitzka, 1999). What this means is that organisations' abilities to garner their important resources, manage their dependency and negotiate situations of external environment are also very important to reduce their dependency on the environment and ensure their survival. Its usage in the context of higher education is reflected in the ambiance of three themes identified by Pfeffer and Salancik (2003). First, is the effect of the environment on organisations. Second efforts by organisations to manage their environmental challenges and third how the internal dynamics of organisations are affected by the environmental challenges. This organizational and institutional change theory explains how organizational changes in HEIs are triggered by governmental policies and programs, including in this study the funding systems employed by

the state which constitute a major part of the conditions under which higher education in Ghana operates. This theory is appropriate for this study because public universities in Ghana are largely funded by the state and so any change or modification in the funding allocation can be expected to trigger a response in the institutional behavior of these higher education institutions. The main premise of this theory according to Gornitzka (1999) is that changing resource flows and how they are structured will bring about organizational change. HEIs constitute the organisations which are dependent and are subject to change subsequent to the actions and inactions of their environments in which they are embedded, in this case the state and its funding systems. The aspect of the resource dependency theory most vital to this study is where Gornitzka (1999) stated "how organisations can act strategically and make active choices to manage their dependency on those parts of their task environment that control their vital resources". This theory would help to explain the findings of that part of this study that seeks to find out how universities in Ghana are affected by the decrease in state funding and the institutional strategies adopted thereof. This is because the resource dependency theory according to Gornitzka (1999) also helps us to understand how organisations relate and react to other social actors in their environment and also how organizational actions are dependent on the exchange relationship with their environment. It must also be established that " organisations do not always embrace strategies, structures, and processes that enhance their performance, but instead react to and seek ways to accommodate pressures following external scrutiny and regulation" (Frumkin and Galaskiewicz, 2004, p.4). Situating this study within the broad framework of exchange relationships and organizational strategic responses to environmental forces will thus help in addressing the research problem of how changes in state funding of public universities could affect HEIs in Ghana and how institutions in turn also respond to maximize their funds. This is because the relationship between public universities and the state is normally described as one of dependency in which the public universities depend heavily on critical resources from the state for survival. The resource dependency theory is thus useful in this regard. Powell and Rey (2015) also believe that the resource dependency theory provides the platform out of which higher education institution leaders could develop strategies to respond to and deal with changes in the higher education environment. This is in line with Oliver's (1991) assertion that resource dependence is a major contributor to the designing of organizational strategy.

3.4 Neo-Institutional Theory

Neo-institutional theory as discussed, amongst others, by DiMaggio & Powell (1983) rose to prominence during the late 1970s and early 1980s. Studies by, amongst others, Meyer & Rowan (1977), DiMaggio & Powell (1983), and March & Olsen (1984, 1989), formed the basis of the emergence of the neo-institutional theory. The discussion of the neo-institutional theory is relevant to this study because as asserted by Oliver (1997, p. 700) "firms make normatively rational choices that are shaped by the social context of the firm". Accordingly, there has also been a rising interest in organisations' strategic response to institutional demands from their environments (Lawrence, 1999). Before discussing the neo-institutional literature, it will first be relevant to discuss institutions in general because of their importance to organisational life and the influences they may have on organizational behavior (Hoffman, 1999). The term institution refers to "*social structures that have attained a high degree of resilience" (Scott, 2001, p48*). Scott conceptualizes further that institutions exhibit stability but are also subject to change processes. Rowan & Meyer (1991) additionally posit that institutions create expectations that determine acceptable organizational actions and behaviours. Key institutional constituents that exert pressures include state regulative agencies, the law, courts and other professional organisations and interest groups (Scott, 1987). In summary, institutions influence organisations by pressuring them to seek legitimacy and strive for social conformity (Orru, Biggart & Hamilton 1991). They basically guide and regularize behavior. Institutions are therefore considered the rules of the game whereas organisations are considered the players (North, 1990). It is about those parts of the environment that enforce institutional norms and beliefs.

This theory also suggests that organisations primarily adhere to their environmental pressures by obeying various rules and norms in their institutional environment in order to gain legitimacy (Covaleski & Dirsmith 1998; Scott 2007). The capacity of organisations to conform to these societal pressures guarantees them success and survival (DiMaggio & Powell, 1983; Oliver, 1991) which could also reduce uncertainties (Berrone, Gelabert, Fosfuri, & Gómez-Mejía 2008). Roy (1997) adds to this assertion by arguing that neo-institutional theory is concerned with how organisations adapt to various regulatory, social and cultural influences basically to ensure that survival as well. It also deals with how organisations secure their positions and legitimacy by adhering to the regulations and norms of the institutional environment (Meyer & Rowan, 1991; Scott, 2007). The neo-institutional theorists thus focus on the imitation of organisational structures and the conformity to state pressures, the demands of professions as well as the norms and rules of their institutional

environment (DiMaggio & Powell, 1983). They are basically concerned with the conformity and the passive acceptance as an organisational response to environmental pressures and institutional demands.

Having discussed the general meaning and the contribution of neo-institutional theory to organizational studies, it is also important to discuss briefly three pillars of institutions identified by Scott (1995). As argued by Scott (1995), institutions have three aspects called pillars which he identified as making up or supporting institutions. These pillars fall into three categories which he labeled as the regulative, the normative, and the cultural-cognitive. These three elements according to Hoffman (1997: 36) range "from the conscious to the unconscious, from the legally enforced to the taken for granted". As argued by DiMaggio & Powell (1991), this typology of institutional iphomisism is not mutually exclusive as they overlap in empirical settings. They added that these pillars are necessitated by different conditions and they may also result in varied outcomes.

The regulative or the coercive pillar constitutes the legal aspect of institutions which normally takes the form of regulations to which organisations must adhere to. It entails the legal aspect of the organisational field that organisations are embedded in and to which they do not have any option than to conform to in order to avoid a penalty for non-compliance (Hoffman, 1999). Hoffman further stated that the regulative aspect guides and controls organisational actions by the threat of legal actions. As stated by Scott (2001), force, fear of punishment for non-compliance with rules, hope for reward and expedience are the major components of the regulative pillar. It is about the imposition of regulations that control and regularize behavior (Scott, 2001) through explicit activities such as rule-setting, monitoring and sanctioning (DiMaggio & Powell, 1983). The regulative pillar becomes intense especially when organisations are legally, morally and economically dependent (Kondra & Hinnings 1998). The state constitutes the main body that sets the regulations and it is prudent that it acts neutrally in order to balance the relation among all organisational constituents embedded in the environment (North, 1990).

From a normative or the social perspective, the thrust is placed on "normative rules that introduce a prescriptive, evaluative, and obligatory dimension into social life" (Scott 2001: 54). Normative systems according to Scott (2001) include both values and norms. Values he added imply what is desirable or preferable whilst norms specify how things should be done consistently with those values. That is they specify legitimate ways to pursue valued ends as

noted by Scott (2001). He further argued that in addition to normative systems imposing restrictions on social behavior, they also empower social actions. Normative institutions, therefore, exert influence because of a social obligation to comply, rooted in social necessity or what an organization or individual should be doing (March & Olsen, 1989). Hoffman (1999) also asserts that organisational actions and behaviours according to the normative perspective arise primarily from social obligation and professionalism. This view is also shared by DiMaggio & Powell (1991) who also associate normative pressures with professionalization. What this means is that organisational actions and behaviours are influenced by the values, norms and the code of conducts of their professional affiliations to which they belong to and as noted by Hoffman (1999), organisations will conform to them out of their social or ethical commitments. Organisations would, therefore, adopt certain standards and techniques set forth by their professions in order to satisfy them and remain legitimate to ensure their survival (Ashworth, Boyne & Delbridge, 2009).

The last pillar is mimetic or the cultural-cognitive. These institutionalists according to Scott (2001) admit to the importance of the cognitive aspect of our human lives. This aspect of institutions "embody symbols-words, signs, and gestures as well as cultural rules and frameworks that guide understanding of the nature of reality and the frames through which that meaning is developed" (Hoffman,1999:6). Organisations would normally conform to the cultural-cognitive pressures without being conscious of them (Zucker, 1983). According to Hoffman, this institutional aspect forms a culturally supported basis for legitimacy. As stated by Scott (2001:57), the cultural-cognitive "recognizes that the internal interpretive processes are shaped by external cultural frameworks". This pillar basically draws our attention to the shared beliefs and the shared understanding that makes up our social world.

3.4.1 Organisational Field

It is also important to discuss organizational fields (Scott, 1991) because of its centrality to the neo-institutional theory. It is also prudent to discuss organizational fields as part of this study because as noted by Scott (1991), the actions of an organization are mostly influenced by happenings within its organizational field rather than internally stimulated. Organisational field largely seen as an arena of power relations (Brint & Karabel, 1991) is defined by (Scott, 1995: 56) as "a community of organisations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors

outside the field". Scott (2003) further described it as a system of organisations that operate in the same realm. Components of the organizational field include those constituents of the organization that put a coercive, normative or mimetic pressure on the organization. These organizational constituents include government, critical exchange partners, sources of funding and the general public (DiMaggio and Powell, 1991; Scott, 1991). Generally speaking, Fligstein and McAdam (2012) conceptualize organizational fields to be the spaces of strategic action of organisations in their embedded environment whereas the actors involved relate to one another in the environment. Similarly, Scott (2001) also described organizational field as a community of organisations that interact with one another. Inferring from the definitions above, organizational fields can be described as a community of organisations where actors involved interact with one another and are therefore affected by the activities of the field. Organisational field could therefore be said to be a guide to organizational behavior (Hoffman, 1999). However, it must be established that the institutional pressure exerted on an organization depends also on the position of the organization within its organisational field (Greenwood and Hinings 1996). The concept of organizational field is relevant to higher education and specifically to this study because of two reasons, as posited by Fumasoli (2011). She argued first that higher education institutions are embedded in an important relationship with state authorities in their organizational field who provide both the regulative and the vital resources they require for their existence and survival. She adds that the concept of organizational fields helps to analyse and examine the mutual relationship that exists between individual organisations and their wider environment. This will therefore aid the researcher to study the relationship that exists between public higher education institutions and the state, and how their funding relationship has evolved over the years in the organizational field. The actors involved in the organizational field with regard to this study include the constituents of public authorities or the state, intermediary agencies i.e. NCTE, and the public higher education institutions. The state authorities function includes the provision of regulative frameworks as well the essential resources as required by the universities. The intermediary agencies are mandated by public authorities and serve as a liaison between the universities and the government. The third actor in this study includes the universities specifically the public universities set up and mandated by the state to provide teaching and research. As stated by Fumasoli (2001), the universities could act individually or collaborate with one another to advance their common interests and enhance the relationship that exists between them, the state and other funding agencies. In this research, the public

universities– the organization and their strategic response to their funding relationship with the state - represents the primary level of analysis.

3.4.2 Legitimacy

What can be inferred from the discussions of both the resource dependency theory and the neo-institutional theory and why organisations would behave strategically towards their environment is that they want to manage their resource dependencies in order to reduce their uncertainties and survive eventually. However, it must be noted that organisations require more than material resources in their relationship with the environment. As stated by Scott et al. (2000:237), "organisations require more than material resources and technical information if they are to survive and thrive in their social environment". They stated further that organisations also need "social acceptability and credibility". That is their actions and their institutional behavior should be acceptable and proper within their social settings. What this means is that, organisations seek for legitimacy in their institutional settings in addition to their quest for material resources. This is because organisations are entrenched in their environments and their "practices and structures are often either reflection of or responses to rules, beliefs, and conventions built into the wider environment" (Powell & Colyvas, 2007, p1). Legitimacy, as defined by Suchman (1995:574), is "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions". It is therefore prudent that organisations adopt certain practices and strategies which are deemed acceptable and legitimate by the rules and regulations established by their institutional environment.

The relevance of legitimacy to both the resource dependency theory and the neo-institutional theory as far as organisations are concerned is reiterated by Scott (2001) who posits that legitimacy is considered as another major kind of resource to organisations. He added that, from the institutional aspect, legitimacy adds validity to organisational actions and that it reflects organisational conformity to the established rules and norms of the institutional environment. In a nutshell, it could be established from the literature that the quest for legitimacy in addition to stability and eventual organisational survival is the reason why organisations react and respond to the different pressures exerted on them by their institutional environment. It is thus not surprising that the drive for organisational stability

and legitimacy forms the main motive of organisational behavior according to both the resource dependency theory and the neo-institutional theory (Oliver, 1991).

3.5 Review of Literature on Higher Education Funding

One of the biggest challenges that higher education has faced over the last few decades has involved a dramatic shift from what had long been an automatic assumption, that public institutions will receive their funding from the public purse (El Khawas 2001).

Several authors like Michael Shattock, Gareth Williams, Bruce Johnstone, Nick Barr and Ben Jongbloed who have written extensively on higher education funding have all come to a realization that higher education systems in most countries are facing a decline in financial support from governments. As argued by Shattock (2003) this phenomenon has encouraged most public universities to develop other revenue generation strategies as a response. The researcher will therefore in the next section review some literature on funding systems in higher education, especially in developing countries.

Universities just like any other organization according to Jongbloed & van der Knoop (1999) need a share of the state's GDP mostly in the form of government grants or loans in order to survive in exchange for educational and research services. Government funding in HEIs normally comes in diverse forms either as grants or loans that are usually allotted for operational costs and infrastructural development projects. Jongbloed & van der Knoop (1999) however contend that because HEIs have to compete among themselves and with other fields of society for these limited public funds, they have to react appropriately to the conditions laid upon them by the environment including the state in order to secure their budget. Thus, a major problem that faces the delivery of higher education is its funding, with government contributions in many countries on the decline (Altbach, 2007). Many researchers have as a result given varied debates propelling the decreased expenditure in the sector. While some have argued that this is borne by increasing fiscal pressure of many countries coupled with the increased student participation in higher education (Ahmad et al 2013), others have also torn into the debate of whether higher education is a public good or a private good considering the major private benefits that it bestows on an individual (Altbach, 2007). Others like (Brock-Utne 2000) have also blamed the World Bank for the neglect of higher education

mostly in developing countries. She explained that the World Bank to some extent views higher education to be a luxury and not a necessity in developing countries and thus encourages national governments to commit more resources to primary and secondary education at the expense of higher education.

Jongbloed (2000) sums this up by raising four key questions regarding the funding of higher education. These he stated

1. How much can higher education a nation afford?

2. How much should be spent per student, per graduate or per unit of new knowledge?

3. Who should pay?

4. How should public funds for higher education be made available to institutions and students? (Jongbloed 2000)

According to Jongbloed (2000), the above questions constitute the basic problems affecting higher education funding policies by central educational authorities across the world. He added that these problems persist because of economic reasons and the issue of scarcity of resources. He continued that national governments chose to invest more in other basic needs of society to the neglect of higher education. Kallison & Cohen (2010: 39), for example, state that "in the competition for scarce state dollars, higher education appropriations have frequently lost out to other priorities such as primary and secondary education, healthcare, and the criminal justice system". According to Jongbloed (2000), there has also been a reduction in public funding to higher education institutions in the developed countries and thus the problem is not peculiar to developing countries alone. He posits that the reductions were meant to encourage the HEIs to work more efficiently and also to motivate and encourage them to secure other supplementary, private funding to make up for the reduction in public funding (Jongbloed, 2000). For example, in the period after the 2008 global economic recession, various states in the US reduced their funding allocation to the higher education sector with an average of about 23%. (Mitchell, Palacios, & Leachman, 2014).

One of the basic problems raised by Jongbloed with regard to funding concerns how the limited government funds are allocated or made available. According to him, the funding mechanism adopted is very important especially in this period of limited state funding as it can encourage HEIs to run more resourcefully and make the most out of limited public funds.

As posited by Albrecht & Ziderman (1992) cited in Jongbloed (2000), there exist four main mechanisms for allocating public funds to HEIs: i.e. negotiated funding, input-based funding, output-based funding and finally student-based funding. According to Jongbloed (2000), the output-based funding model is an allocation mechanism which is based on "payment by results". With this, funding is allocated to the universities based on the success or otherwise of their outputs, e.g. their number of graduates, post-graduates and research activities carried out in a particular academic year. With regards to the student-based funding model, allocations of funds are made through students rather than directly to the HEIs. This allocation mechanism is also called the voucher system whereby the students receive vouchers directly from the government and in some cases from private sources whose value is based on the number of years and the cost of the education that they are enrolled in (Albrecht & Ziderman, 1992). Next is the input-based funding approach which focuses on the allocation of funds to institutions based on the unit cost of education such as staff salaries, material requirements, building maintenance costs, etc. According to Jongbloed (2000), allocations of this nature are made based on a particular formula or on line item basis. Lastly is the negotiated funding model. Here, funding allocations are made based on the previous year's budget with budget proposals from the educational institutions serving as the starting point for negotiations for the new budget. This model is not based on any specific or laid down objective which is normally tied to the funding but rather on negotiations between the government and the educational institutions (Jongbloed 2000). In this traditional funding system, negotiations normally follow historical trends (Salmi, Reviewed, & MacMillan, 2006). Similarly, a study by Jongbloed & Koelman (2000), also raised two fundamental questions when analyzing state funding models and mechanisms, i.e. what is being funded by the government? And how is it funded? The first question concerns the funding base for the allocations to HEIs: is funding tied to output or input , that is to what extent is it performance-based? The second question has to deal with the market orientation or driving force behind the funding system, expressed by the degree of competition and the degree of centralization. This implies that the funding systems employed by the state also depend on the degree of authority the state intends to wield over higher education institutions. What this means is that funding mechanisms should not be studied in isolation but rather together with the public policies that influence them. Salerno (2004, pp. 101-130) corroborates this by stating that *"any study about public finance mechanisms would not be complete without giving some consideration to the public policies from which they emanate and it is clear that higher education is no exception"*.

Jongbloed (2000) also outlined some possible policy directions which could be pursued to mitigate the effects of the underfunding of HEIs, especially in developing countries. He posits that universities should be allowed to engage in various public-private partnerships, such as parent-university, university-business, and university-alumni as this could reduce their dependence on public resources. He continued that HEIs should be stimulated to increase their revenue from private source and also adopt entrepreneurial income generating activities. Another policy option was that universities should control their costs by tracking data on cost and performance as this will enhance cost savings and the accountability of resources. He also advocated for a performance funding mechanism as it enhances the efficiency of resources and completion. Jongbloed again asserted that higher education should be decentralized by the state with greater institutional autonomy given to HEIs to generate their own alternate source of funding and support. Again he advocated for a readjustment of coordination between HEIs and donors to make aids more effective and efficient. Lastly, he suggested that HEIs should adopt low-cost modes of instructions such as distance learning in order increase access and generate additional income through tuition fees as well.

Jongbloed (2000) argued that key among the policy options suggested were the exploration of non-traditional sources of revenue as well as the enhancement of both financial and managerial autonomy of HEIs. Similarly, studies by Clark (1998) and (William 1992) among others have also identified and categorized some income generative strategies adopted by universities in their bid to deal with reductions in government funding. These include the sale of universities goods and services, income generation through research, income from education services provision, and the commercialization of university facilities.

It has become evident that free higher education is somewhat unsustainable and has thus become a thing of the past. Therefore, it is prudent to discuss how the change in higher education funding has necessitated certain reforms in higher education systems and HEIs across the world.

Zhang et al.'s (2016) review of the literature on the trends in higher education funding in the last decade has revealed certain patterns of change and policies as a result of the reduction of state funding. First, the deregulation of tuition fees and the marketization of higher education. The UK, for example, transferred in 2009 their department of Education to the Department of Business, Innovation, and Skills. This move geared towards the direction of market mechanism of the UK education system was a way of increasing revenue to the higher

education sector by making it more responsive to student needs (Choi, 2015). This has resulted in increased tuition fees (Zhang et al 2016). Scholars like Vidovich et al. (2007) have also noticed that strategies like the introduction of tuition fees and the commercialization of various HEIs' activities have been adopted in the wake of declining government resources to the sector. Similarly, others like Johnstone (1998) have also suggested diversified funding source such as the introduction of loans, the encouragement of private tertiary education and lastly the encouragement of entrepreneurial activities by the universities. Many developing countries have thus carried out the policy of "cost sharing" through the charging of tuition fees (Oliver 2004). Research activities have also been recommended as a way of generating income for higher education institutions as a response to changes in public funds (Gulbrandsen & Smelby 2005). Commercialization and the marketization of HEIs have thus become a key trend in most higher education systems across the world in recent times.

Another area of reform or change in HE funding has been the deregulation and the branding of HEIs as autonomous public institutions in most part of the world (Zhang et al. 2016). HEIs in Finland, for example, have achieved the status of independent legal entities separated from the state and mandated with the financial freedom to acquire and utilize their own external funding with little government restrictions (Zhang et al. 2016). A similar instance is the case of Japan where the National University Corporation Act introduced in 2004 has given various HEIs leaders the discretionary power and the financial autonomy over their institutions which are now independent public institutions (Hanada, 2013). Australia has also gone along the same tandem with reforms which aims to transform their institutions into corporate entities which follow profits. According to Long (2010), international students in Australia were seen as potential source of income during that phase of reform from (2000–2008). Varghese (2004) and Welch (2007) have argued that institutional autonomy and the financial freedom to control one's own resources are very important for HEIs to adopt strategies that can attract additional funding from private sources. It is therefore difficult for HEIs to adopt strategies of change towards commercialization and private funding acquisition without the necessary autonomy and institutional freedom (Deogratias, Bugandwa & Mungu 2009).

Another trend has been the resurgence of a performance-based funding model (Zhang et al. 2016). This funding model focuses on the output of teaching and research in HEIs where certain performance indicators are used to decide the level of funding allocated (Jongbloed & Vossensteyn, 2001). Most governments have adopted this system because it encourages HEIs

to perform better as well as ensuring accountability. Performance-based funding also encourages HEIs to adopt an entrepreneurial culture (Sharma 2004). Researchers like Schiller & Liefner (2006) have also advocated the use of performance-based funding as it forges a closer relationship between the government and HEIs. It is therefore not surprising that most HE educational systems, especially in the OECD countries, have adopted the strategy of performance-based funding model that relies on performance indicators (Jongbloed and Vossensteyn, 2001) to increase performance related funding to their HEIs. Good funding mechanisms are therefore important in order to stabilize the acquisition of resources (Albrecht & Ziderman 1992).

In conclusion, this review of the literature on the section of higher education funding has given an overview of HE funding development and changes in both the developed and the developing countries in the wake of growing participation and economic pressures faced by various governments. It has also highlighted various reforms and strategies adopted by some HEIs and governments especially in the developed world as a response to the cuts in public funding. These changes include the introduction and increment of tuition fees, the corporatization and marketization of HE, the privatization of HE and lastly the introduction of funding reform mechanisms such as the performance-based funding system. It must be noted that, although some of these strategies of diversified funding have been implemented by some HE systems in developing countries, its impacts on mitigating the effects of public funding cuts are yet to be fully seen as the effects of public funding pressures are much more evident than as experienced by HEIs in other developed countries.

3.6 ANALYTICAL FRAMEWORK

This section presents the analytical framework adopted for this study based on the research questions and the literature reviewed in this chapter. As indicated by Pajares (2007), theories or conceptual frameworks help us to discuss research findings in terms of how they relate to the theories that underpin the study. The research questions this thesis seeks to address would, therefore, be examined and investigated based on the analytical framework derived from the perspectives developed by Oliver (1991) regarding organizational response strategies to institutional pressures. In addition, this adapted analytical framework by Oliver (1991) also serves as the guide through which the data collection and its analysis will be made. This theoretical framework according to Oliver (1991) is based on the convergent insights of both

the neo-institutional theory and the perspectives of the resource dependency theory which have been discussed in the previous sessions of this chapter.

3.6.1 Neo-Institutional Theory and Resource Dependency Theory; Convergent and Divergent Foci

Changes in organizational behavior in relation to interactions with its external environment can be approached and understood by both the resource dependency theory (Pfeffer & Salancik, 1978) and the neo-institutional theory (DiMaggio & Powell 1983). The two theories converge at some point which according to Maassen & Gornitzka (1999) is based on the shared assumption that organisations are constrained by external environmental forces which they can only survive when they are responsive to them. To Oliver (1991), these two theories also share similar assumptions about the context of organisational behavior and the motives behind certain organisational actions. She argued that both theories assume that organisational choices are limited by various external pressures emanating from the environment. In addition to that, the survival of organisations depends to a large extent on the way they respond to these external pressures and demands. She concluded that the motives behind organisational behaviours as far as these two theories are concerned are that organisations are driven by their self-interest and that they seek legitimacy by responding to their institutional environment. These theories have become important in assessing changes in organisations in relation to their institutional environment. The environment is thus important to organizational studies because organisations are invariably embedded in them (Pfeffer & Salanick, 2003).

At the same time, it must be noted that there exist differences in focus and theoretical perspectives between the resource dependency theory and the neo-institutional theory. Oliver (1991) pointed to the importance of these differences in her characterization of the strategic organizational responses to external pressures that will be discussed further in this chapter. These theories to some extent contrast on the understanding of how organisations respond to their external influences. The differences as pointed out by Oliver (1991) indicate that whilst the neo-institutional theorists stress the institutional environment, the resource dependency perspective emphasizes the task environment aspect of the environment. She also added that whilst the neo-institutional perspective deals with the conformity and the adherence to norms and institutional beliefs, the resource dependency perspective, on the other hand, focuses on the coping with external interdependencies and the adaptation and management of scarce

resources. Their differences are also reflected in the nonchoice behavior and the passive conformance exhibited in the neo-institutional perspective whilst there is active choice behavior, resistance, and manipulation by organisations to external expectations in the resource dependency theory. Lastly, in terms of motives, the neo-institutional theorists believe that organisations seek social fitness and legitimacy, whilst the resource dependency perspective emphasizes the importance of resource mobilization for organisations (Oliver, 1991).

The importance of the discussion of the convergent and the divergent emphases in these two theories serves two purposes. First, the addition of the resource dependency theory to the neo-institutional theory helps to complement the limited perspective on the organisational responses to institutional environment discussed by the traditional institutionalists. Oliver argued that organisations' strategic behavior with which they respond to the pressures from the environment was lacking from the perspectives of the neo-institutional theory. Secondly, the differences in focus of these two theories help to shape or correct the assumption of the nonchoice behavior and the passive conformance of organisations to external pressures traditionally held by the neo-institutionalist perspective (Oliver, 1991).

It is thus the commonalities and the differences of these two theories woven together that form the basis for the typology of the strategic responses which serves as the backbone of this study.

3.6.2 Analytical Framework for Organizational Response

This study is therefore primarily guided by the analytical framework developed by Oliver (1991) who combines the neo-institutional theory and the resource dependency theory to investigate the relationship between organizational responses and institutional pressures. Oliver argued that these two theories are important for understanding the fact that organizational choices and activities are influenced and limited by a variety of external pressures. Issues such as organizational resources and capacity, conflicts of institutional pressures with internal dynamics of organisations as well as the awareness and the lack of recognition of external pressures are factors that determine the conditions of conformity of organisations to external expectations (Oliver, 1991). Oliver identified different strategic responses that organisations may enact in response to environmental pressures that constraint them. She further developed a typology of strategic responses that organisations may develop

when it comes to organization-environment relations. These responses vary from passivity to increasingly active resistance. These strategic choices include acquiescence, compromise, avoidance, defiance, and manipulation (Oliver, 1991). Oliver's theoretical framework argues that, while organisations are affected by their institutional structure, they are also able to make active strategic choices by manipulating their environment (Oliver, 1991). She further asserted that, given resource dependency theory's focus on the methods and benefits of resistance and noncompliance in response to external demands, this theory provides a particularly appropriate basis of comparison for revealing neo-institutional theory's delimiting assumptions and for identifying the full repertoire of alternative strategies available to organisations (Oliver, 1991, p. 173). It was however indicated by Oliver (1991) that these response strategies or organisations' willingness and ability to conform to the institutional pressures will depend on certain external conditions which include why these pressures are being exerted, who is exerting them, what these pressures are, how or by what means they are exerted and where they occur. In other words, the reasons for the pressure, nature of the pressuring constituencies, the requested changes contents, how the pressure is being exerted and lastly the environmental contexts of the demands. These she classified into **cause, constituents**, **content, control** and **context** respectively. She added that these themes help to predict various organisational response strategies to external demands which will be discussed in the latter part of this chapter.

Strategy	Tactics/Definition	Study INDICATORS
Acquiesce	Imitate/Habit/Comply-Following invisible, taken for granted norms and obeying rules	Universities consciously accede to or **adapt** strategies to public funding decrement.
Compromise	Bargain/Balance/Pacify-Negotiating with Institutional stakeholders	Universities **negotiate** with government to get the required funding favourable to all parties.
Avoidance	Conceal/Buffer/Escape-Avoiding the need to conform to the environment and disguising conformity	Universities attempt to mitigate effects of decreased public funding by **diversifying** funding sources.
Defy	Dismiss/Challenge-Defying explicit norms and values and contesting or ignoring rules and requirements	Universities **actively dismiss** or totally ignore public funding
Manipulate	Co-opt/Influence/Control-Purposeful attempt to co-opt and control institutional pressures.	Universities purposefully attempt to **exert power** over the government to increase funding allocations.

Table 3.1 Typology of organizational strategic responses to institutional processes, adapted from Oliver (1991)

The various strategic responses and tactics which organisations according to Oliver (1991) may adopt in response to institutional and environmental pressures as depicted in Table six will, therefore, be discussed below.

Acquiescence

This strategy deals with how organisations passively give in or accede to institutional demands (Oliver 1991). It is about organisations' least resistance to changes in their

environment (Aier & Weiss 2012). Acquiescence strategy takes the form of habit, imitation and compliance. *Habit* as a strategy is about the adherence to taken-for-granted rules and values. The tactics of *imitation* are also about the conscious copying or mimicking of institutional models. It has to do with copying or taking advice from successful companies or entities in the organizational field. This form of strategic response is comparable to the idea of mimetic isomorphism (Munir et al. 2011). The tactics of *compliance* according to Oliver (1991) is deemed more active than habit and imitation. This tactic is about the active adherence to institutional expectations because of factors such as self-serving, legal, social, and economic considerations (Aier and Weiss 2012). Ends such as the enhancement of one's legitimacy and the increment in stability also constitute some of the reasons organisations may comply with external demands (Meyer and Rowan, 1983). All in all, acquiesce is based on three things. First, it is about organisations deliberate intent to conform to external pressures. Second, it is also about how knowledgeable the organization is about institutional pressures and lastly, it is about what the organisations expects to gain, i.e. its self-interest by conforming to the environmental demands (Oliver 1991).

Study indicator; a situation where the universities consciously accept the funding decrement by adapting strategies to whatever funds they are offered by the government.

Compromise

This strategy normally occurs when organisations think of unqualified adherence to external pressures as being unworkable. Organisations are actively conscious of their self-interests and they seek for satisfactory solutions with respect to their interaction with the environment (Aier & Weiss 2012). As posited by Oliver (1991), organisations consider this strategy when they are faced with conflicting institutional demands and internal organizational objectives. The tactics available under this strategy in relation to external environmental bodies she added are *balancing, pacifying and bargaining*. *Balancing* refers to the "accommodation of multiple constituent demands" (Oliver, 1991). This strategy of compromise also deals with how organisations attempt to achieve equilibrium between their internal interests and other various stakeholders in the organizational field. *Pacifying* tactics also refers to partial conformity with the demands of other constituents. It also involves a situation where organisations marginally resist institutional expectations or demands whilst at the same instance attempting to appease that very institution or environmental constituent it has

resisted. *Bargaining* which is a bit more active form of compromise involves negotiating adherence or conformity to institutional demands. It also concerns how organisations bargain to reach agreements. It is a strategy of concession from the demands of an institutional constituent. In general, the strategy of compromise is about the partial conformity to the expectations of its environmental constituents.

Study indicator; a situation where the public universities negotiate or bargain with the government to reach funding decisions satisfactory to both parties.

Avoidance

The avoidance strategy is also manifested through the tactics of concealment, buffering and escape. This strategy constitutes attempts made by organisations to circumvent or avoid the need to conform to environmental pressures. The tactics of *concealment* according to Oliver (1991:154) means "disguising nonconformity behind a façade of acquiescence". It also means the tactics of pretending or the symbolic acceptance of demands made by the external environment (Meyer & Rowan, 1997). To Oliver, concealment is a more mirage or fake conformity to external expectations in contrast to the true or real conformity to institutional demands in the acquiescence strategy. *Buffering* as a tactic also "refers to an organization´s attempt to reduce the extent to which it is externally inspected, scrutinized, or evaluated by partially detaching or decoupling its technical activities from external contact" (Oliver 1991,p. 155). The last tactics of *escaping* described as a more dramatic form of avoidance from environmental pressure (Aier & Weiss 2012) also involves an attempt by organisations to exit altogether the field or arena where the pressure emanates from (Hirschman, 1979). It is a situation where organisations change their focus or goals to avoid the need to conform to the environment

Study indicator; a situation where the universities attempt to reduce the impacts of public funding pressures by diversifying funding sources.

Defiance

This strategy is a bit more active and a true resistance strategy in comparison to avoidance because it does not cover up or hide anything (Aier & Weiss 2012). Its resistance tactics

include *dismissal*, *challenge*, and *attack*. *Dismissal* implies means to deliberately and consciously ignore institutional rules and this normally happens when organisations deem the impacts of the external pressure to be low. This strategy could also be employed when organisations see external pressures to be in conflict with their internal objectives and goals (Oliver, 1991). *Challenge* here also refers to a more active form of departure and contradiction to institutional norms and values than the dismissal strategy. *Attack* is the most aggressive tactics of deviance to institutional pressure. "An attacking strategic posture is most likely to occur when institutional values and expectations are organization specific rather than general or devocalized, when these values and expectations are particularly negative and discrediting, or when organization believes that its right, privilege, or autonomy are in serious jeopardy" (Oliver 1991, p. 157). It constitutes an intense strategy to even destroy where the pressure emanates from.

Study Indicator; a situation where universities totally ignore government funding altogether

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Manipulation

This strategy constitutes the most intense form of resistance as a strategy. It is the most active response to institutional pressures, which does not only view environmental pressures as constraints but also means through which the constituents of these pressures could be manipulated for one's own self-interest. It is employed to actively control the source of pressures for the organisation's own good (Aier & Weiss 2012). To Oliver (1991), it is about the deliberate opportunity for organisations to dominate the constituents of institutional pressures. It includes *co-opt, influence, and controlling* tactics. *Co-optation* is a tactics organisations may employ to neutralize their institutional opposition and enhance their status and legitimacy by coalition-building. That is, an organisation may for example convince their pressure-exerting external opponent to join its board of directors of some sort. *Influence* as a "tactics may be more generally directed toward institutionalized values and beliefs or definitions and criteria of acceptable practices or performance" (Oliver 1991, p.158). *Controlling* tactics is also a strategy that seeks to directly dominate and exercise authority over institutional constituents exerting the pressures. It is more about power over institutional sources than influencing or shaping them (Aier & Weiss 2012). Controlling as tactics has to

do with how organisations control the processes they assume might influence them and their operations.

Study Indicator; a situation where the public universities control or exert power over government to increase public funding

This study will, therefore, examine and explore the strategic choices made by public universities in Ghana in the context of recent public higher education funding challenges using Oliver's five organizational response strategies to institutional pressures as the analytical framework. Using Oliver's (1991) typology as an analytical basis will help to examine the various response strategies that the University of Ghana and the University of Education, Winneba employ as a response to their current funding needs.

4 RESEARCH METHODOLOGY

4.1 Introduction

This chapter outlines the method that was used in collecting, processing and analyzing data for this research study. The chapter will discuss the research design, data sources, sampling procedure, sampling population, research methods and data analysis methods as well as quality criteria and ethical issues of this study. All in all, this chapter provides a justification to the research methodology used in the collection and the analysis of data of this study.

4.2 Research Design

Generally, a research design is conceptualized as a "structure that guides the execution of a research method and the analysis of the subsequent data" (Bryman, 2004:27). Its importance to any research study is manifested in the fact that as stated by Durrheim (1999), the research design serves as a bridge between the research questions and the implementation of the research. This study is centered on the framework of a descriptive research strategy which aims at exploring and describing the features of the national HE funding system and how public higher education institutions in Ghana strategically respond to the institutional funding from the state at the institutional level. A descriptive research strategy seeks to obtain information about the status of a contemporary phenomenon (Saunders, Lewis & Thornhill, 2007). A qualitative research methodology is used in this study. Bryman (2012:380) defines ''*qualitative research as a research strategy that usually emphasizes words rather than quantification in the collection and analysis of data''*. The study is qualitative in nature simply because it is through a qualitative research design that the researcher uses to address his research questions and gather relevant data that will be useful for the project under study. Using this methodology gives the researcher a holistic and a comprehensive overview of the public universities funding environment and their strategic responses. Qualitative research methods were chosen because it is appropriate to use it to study human and/ or institutional behavior and behavioral changes which is what this study entails in terms examining how HEIs respond strategically to their funding environment. This research design was adopted generally because of the research problem and questions and the nature of the issue at hand as identified above. It must, however, be noted that despite the strengths of qualitative research

methods, it also has its own accompanied weaknesses which the researcher is well aware of. It is argued that qualitative research has a weak structure and also they lack a certain degree of accuracy unlike quantitative research methods (Silverman 2000).

4.3 Case Study Design of The Research

Consistent with qualitative research design, a multiple case study approach was used to investigate how public higher education institutions in Ghana operate in their funding relationship with the state, using the University of Ghana and the University of Education, Winneba as case institutions. This means that this study uses a case study approach as the study is centered on two public universities as the unit of analysis. A case study entails the "in-depth, qualitative studies of one or a few illustrative cases" (Hagan 2006, p. 240). Case study design can also be defined as the research strategy that "investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 2003:13).The case study is used to enable the researcher to have a comprehensive insight and obtain a more holistic evidence for this research. It is also appropriate for groups, individuals, organizational, social and political issues (Yin, 2003).This is relevant for this study because it provides for the in-depth analysis of the two public universities out of the entire population of HEIs in the country. Using the case study strategy as posited by Yin (2003) will also help to study the contextual conditions of the study which is one of its strengths. The empirical contexts of this study will thus be the University of Ghana (UG) and the University of Education, Winneba (UEW). The multiple-case study approach was chosen because the researcher intends to study and understand in detail the various institutional strategies being adopted by the public universities in response to their funding environment.

The epistemological consideration of this study is the interpretivist which is more aligned with the qualitative nature of this study. This can also help the cases under review to be studied in a great level of depth.

4.4 Population Definition and Sampling Technique

Defining the population is very important as it constitutes a major part of the research design process (Ngulube, 2005). The population of the study involves funding policy makers, university leadership and financial administrators in Ghana. The respondents were selected from 3 organisations, that is, the University of Ghana, the University of Education, Winneba, and the National Council of Tertiary Education (NCTE). Originally, the researcher intended to interview a top official within the tertiary education division of the Ministry of Education in Ghana but this was not possible in practice because the researcher was directed to the NCTE by the ministry whom the official claimed was best to answer questions regarding tertiary education in Ghana. The researcher, therefore, had to do make up for this with a secondary interview granted by a director of finance in the ministry in a different research project on HE funding in Ghana which the researcher finds useful to include in this study. Officials were purposefully selected from the budget and planning office of each of the organizations identified above. A purposeful sampling technique was used as the main selection criteria to select the 4 respondents. According to Bryman (2012), purposeful sampling is a non-probability sampling procedure which is also part of convenient sampling. Tashakkori and Teddlie (2003, p. 713) define purposive sampling techniques as a sampling technique whereby respondents are selected "based on a specific purpose rather than randomly". This sampling technique was adopted because the researcher intends to carefully interview people who are knowledgeable on public university funding in Ghana. Rubin and Rubin (2005) assert that the credibility of interviews depends on the knowledgeability of the participants. Using the purposeful sampling techniques thus provides the opportunity for the researcher to deliberately select the subjects of the study who will aid in providing accurate and relevant data (Sarantakos, 2005). This underscores the purposeful selection of interviewees from the universities' budget and planning office because of their involvement in the funding decisions of higher education in Ghana. Purposive sampling was also used to select the two public universities out of the twelve public universities in Ghana to serve as the case studies and the unit of analysis of this study. The rationale behind the selection of the University of Ghana (UG) and the University of Education, Winneba (UEW) as relevant cases was to provide the highest probable differences between university funding strategies and also the fact that they are public higher education institutions who are dependent on the state for public funding and survival. These chosen cases are also diverse in terms of their size, year of establishments, funding mix as well as their core mandates. Using multiple cases will also give the researcher the needed advantage in studying in detail the funding environment of the

public higher education institutions in question and how they respond strategically to secure their needed funding. The selection of these two public universities would also offer the opportunity for the researcher to study how the two universities respond to environmental pressures individually with respect to their contextual conditions. This is because as indicated by Oliver (1991), organisations might respond individually and differently in a number of ways to the same environmental demands they both have to deal with. Below is an overview of the interviewees of the study.

Table 4.1 Selecting Two case studies: features

	University of Ghana (UG)	The university of Education, Winneba (UEW)
Type of HEI	University	University
Year of Set up	1948	1996
Size	Large	Medium
Main funders	Government	Government
Subject Mission	General Subjects	Education Program Specialist
Regional Location	Greater Accra Region	Central Region

Table 4.2 List of Interviewees

Institution	**Number of Interviewees**	**Position**
University of Ghana	1	Budget and Planning officer
University of Education, Winneba	2	Budget and Finance Officer Planning officer
National Council of Tertiary Education	1	Tertiary Education Financial Coordinator
The Ministry of Education (Secondary Data)	1	Tertiary Education Finance Director

4.5 Data Collection Tools

This thesis employed both primary and secondary data sources. Qualitative data collection instruments such as documents and semi-structured interviews were mainly used in this research. These instruments selected were influenced by factors such as the kind of data that the researcher wants to gather and also the overall research design of the study. The details of the two instruments of data collection are discussed below.

4.5.1 Interviews

As posited by Benney and Hughes (1970), an interview constitutes one of the main media in which people communicate with one another with the aim of generating information for research activities. The interviews conducted in this study were qualitative in nature which took the form of a conversation between the interviewer and the interviewees. To Marshall and Rossman (2000:108), an interview is a *"conversation with a purpose"*. Babbie (2007, p.306) in addition defines qualitative interview as an "interaction between an interviewer and a respondent in which the former has a general plan of inquiry including the topics to be covered, but not a set of questions that must be asked with particular words and in a particular order". This qualitative case study employed a semi-structured interview as a data collection method. This constitutes an important part of this research study. According to Bryman (2012), a semi-structured interview is one in which the researcher has more flexibility and fluid structures and with an interview guide designed in a sequential manner. A semi-structured interview was used in this study because, as posited by Bryman (2012), this interview structure suits multiple case study research because they are useful for cross-case compatibility. This interview type also allows for flexibility because it also permits the inclusion of other relevant issues that may arise out of the interview in addition to the core topics outlined in the interview guide. They also provide the opportunity for the interviewer to ask follow-up questions based on the responses of the respondents (Bryman, 2012). Face-to-face or in-person interview with participants was the interview format in which the interviews were conducted. The interview was conducted with the aid of three instruments. First, was the presence of an interview guide, which contained the questions that guided the interviewer during the process. This was an important instrument because the sequence of topics and the interview outline "increases the comprehensiveness of the data and makes data collection to some extent systematic for each respondent, logical gap in data can be predicted and closed

and the interviews may stay fairly conversational and situational" (Patton, 2002: 349). Secondly, a tape recorder was used to record the interview upon seeking the prior approval of the respondents. This was done to ensure the accuracy of the interview data and also to ensure fewer difficulties during the data analyses stage. The third instrument adopted was the use of a notebook and a pen to take field notes. This was done to complement the tape recording with the aim of improving the quality of the interview data collected and also to aid the analyses stage. The interviews were conducted using the English language. The interview data was collected from 4 semi-structured interviews of 4 people who constitute the sample of this study. Data collection started in the summer of 2016 when the interim research proposal was approved. The interviews were carried out in the two cities of Winneba and Accra on the premises of University of Education, Winneba and the University of Ghana and the NCTE respectively. The first interview was carried out at the University of Ghana. After an approval was sought at the finance and planning department, the chief finance officer delegated the interview to the budget officer who he assured me was equally capable to answer the interview questions. The interview with the official lasted for about an hour during the officer's break time in the afternoon. The questions covered issues on the university's funding needs, its relationship with the state in terms of securing funding, the university's expenditure as well as its internally generated funds. Questions on the interview guide were not strictly adhered to as answers from the interviewee prompted to follow up questions not stated in the interview guide. All in all, the interview was helpful though not all questions stated in the guide were answered extensively. A request was made for receiving information on the institution's current budget but was denied unfortunately after the interview.

The next (intended) interview was at the Tertiary Education Department of the Ministry of Education. After several trips were made to the premises of the ministry to seek approval, I was finally granted the opportunity to meet a top official from the ministry by the secretary. Unfortunately for me, the official declined the interview request and rather directed me to the offices of the National Council of Tertiary Education who he assured me was better in a position to answer all questions regarding tertiary education and its funding in the country. This I gladly adhered to though I still had to rely on a secondary interview once granted by an official of the ministry in 2015 to support this study. The interview at the NCTE was very successful. After a first visit to seek approval, I was directed to an official who scheduled to meet me at a convenient date at the government agency. The interview lasted for about 50 minutes and it covered mainly the government's response to the funding needs of the

universities and how the educational budget is prepared and disbursed. After the interview, the NCTE official recommended that I buy the NCTE's budget which he thought was useful to my topic and project. This I followed but unfortunately, I managed to get only the 2013 budget which was available at the time. It was a fruitful interview with the NCTE and it provided a good cover for my unavailability to access the Ministry of Education as far as the government's position on tertiary education funding is concerned in this study. This is because the NCTE serves as the official government agency that liaises between tertiary education institutions and the government as far as tertiary education in the country is concerned. The NCTE was set up in 1993 as a semi-independent statutory body, as per the National Council for Tertiary Education Act No. 454 of 1993, to supervise all public TEIs of both university and non-university status (Bailey, 2014).

The last two interviews were done at the University of Education, Winneba. Introductory letters were sent to the finance department and two officials were delegated to attend to me. These were also successful interviews which concentrated on the university's income and expenditure and their funding relationship with the state. One interviewee effortlessly granted me the university's current budget statement and offered me his telephone number to get in touch with him whenever I needed additional information after the interview. Efforts were also made to access and interview high ranked, university officials but were unsuccessful mainly because of their busy schedules and the limited time that I had to conduct the fieldwork in Ghana.

4.5.2 Documents

Secondary data were also assessed from published works, online sources and, universities' and governmental documents in public purview. Documents were partly used in this study because of the inadequacy of the interview data as a sole qualitative research method to elicit all required information. Its usage in this study is also because it is seen as one of the most significant tactics of getting information for a qualitative study. Its importance is addressed by Yin (2003) who asserts to the relevance of documentary information to every case study topic in terms of the explicit roles they play in the data collection process. Documents collected include financial and budgetary documents of the University of Ghana and the University of Education, Winneba. Strategic plans of the two universities were also collected and reviewed. Some relevant financial policy documents and publications of the National Council of

Tertiary Education (NCTE) were also reviewed and analyzed. Education funding policy documents from the Ministry of Education as well as some empirical literature and reports regarding public higher education funding in Ghana were also assessed in this study. The importance of the review of documents to this study is that it complements and also validates data from the interviews conducted. For case studies of this nature, documents according to Yin (2003) serve three purposes in the naturalistic inquiry. First, documents provide useful means to verify the accurate spellings and details of organizations that might have cropped up during the interview process. Second, documents and records could also corroborate information from other data sources and finally, documents serve as record points where inferences can be made from. These three purposes of documents as mentioned by Yin corroborates why efforts were made by the researcher to access certain budget statements and strategic plans of the institutions interviewed in order to complement and serve as referral points for the interviews conducted. Critical assessments of these documents were done in order to get the relevant portions needed for this research study. The documents collected were evaluated based on Scott (1990) document quality criteria which include the documents authenticity, representativeness, meaning, and credibility. It must be noted that these documents were selected out of the lot based on the research questions and the analytical framework of this study.

LIST OF OFFICIAL DUCOMENTS USED

1) University of Ghana Strategic Plan 2014-2024
2) UEW Corporate Strategic Plan 2014-2018
3) UEW Budget 2015
4) NCTE Budget 2015

4.6 Data Analysis Methods

Data analysis constitutes an important aspect of qualitative research after data collection. It refers to the process of organizing the mass of data collected into an organized structure for interpretation (Marshall & Rossman, 1999). Accordingly, Fraenkel and Wallen (2000) also posited that analyzing data in a qualitative study basically entails synthesizing the information obtained from various data sources into a clear depiction of what the researcher has

discovered or witnessed. The analysis was done grounded on the specified research questions of this study. To start with, parts of the data analysis were done hand in hand with the data collection and the interview process. This is because field notes were taken and then memos were also written during the interview process. This is due to the fact that analysis of interview data starts simultaneously at the beginning of the interviews (Patton, 2004; Rubin & Rubin, 2005). The qualitative data collected during the semi-structured interviews were analysed using qualitative approaches. The data analysis was done based on thematic analysis or approach. Data were obtained from both primary and secondary sources i.e. datasets from the documents review and the interviews according to the research questions and the analytical framework of the study. Recordings from interviews were tape-recorded and subsequently transcribed verbatim into a written text to prevent misrepresentation and misquotation. Open Coding of the interview transcripts was also done to create themes and sort out the frequent issues in order to make meaning from the transcripts of the data collected together with the interview field notes that were taken on the field.

Similarly, classified themes were also extracted from relevant documents that were used during the document analysis stage which was compared with the analysis from the interview data. The organized themes were extracted based on the research questions, the literature reviewed and the analytical framework of this study. This was done to aid the interpretation of data and the research findings. The similarities and differences in the strategic approaches of the two case study universities towards the funding from the environment will, therefore, be discussed based on data from the interviews and some selected relevant documents together with some reviewed literature that were discussed in the study.

4.7 Quality Criteria

Issues of validity and reliability were the criteria that were used to assess the quality of this research project. Each of these issues is discussed below as part of efforts to ensuring transparency and also to enable this piece to meet the scientific standards of any research study.

4.7.1 Validity and reliability

Cresswell (2013) argues that qualitative validity constitutes means by which the researcher employs various procedures to ensure the accuracy and the credibility of the findings. Similarly, Patton (2002) asserts that validity in quantitative research hinges on the careful application of methods to warrant that the instrument measures what it is meant to measure. As succinctly put by Mason (1996:24 as cited in Bryman (2012), validity refers to "whether you are observing, identifying, or measuring what you say you are". Reliability, on the other hand, involves the rate at which the study results are repeatable (Bryman, 2012). It is defined as the "relative absence of haphazard errors of measurement." (Kleven,1995:13). In other words, it includes an instrument's ability to produce the same result (Durrheim et al, 1999) i.e. it represents the consistency of measurement. Reliability of data was enhanced in this study by interviewing the right respondents with good knowledge on what the researcher intends to find as well as using the appropriate documents that fit the purpose of this study.

Creswell and Miller (2000) also identified some methods that qualitative researchers usually use to enhance the credibility and the validity of their studies and findings. These include triangulation, peer reviews, external audits, thick description, and member checking. Similar strategies of the aforementioned methods were also employed in this study to improve its accuracy. First triangulation of data from different sources was used to ensure the credibility and accuracy of the data that were gathered. According to Yin (2014), data triangulation is one of the major strengths of case study research, as it allows to cross-check the retrieved information over a number of different sources. It basically involves using several sources of data evidence or using more than one method to study a social occurrence (Bryman, 2012). This was done in this study by complimenting the interview data with documentary data. Respondent validation was also used all in an attempt to improve the accuracy of the data collected from the respondents during the interview process. This credibility strategy also known as member validation refers to "a process whereby a researcher provides the people with whom he or she has concluded research with an account of his or her findings". (Bryman 2012:391). This according to Bryman is done to seek substantiation or otherwise of the research findings. In this study, interview responses by respondents were summarized after each session and the accounts read out to them to crosscheck their responses for verification and confirmation purposes to improve their accuracy and credibility.

4.8 Ethical Considerations

According to Ghauri and Gronhaug (2005), ethical issues in research refer to the moral principles and ideals influencing the conduct of research by an investigator or group of researchers. They further outlined eight (8) ethical principles guiding the relationship between the researcher and the respondents based on which ethical considerations of this study were embedded with regards to the overall conduct of the study and the interview protocol and schedule. These guidelines are enumerated below.

a. Protecting the identity of the respondents

b. Being careful not to expose respondents to psychological stress

c. Taking care of questions unfavorable to their self-interest

d. Not involving respondents in research without their understanding

e. Not using precarious instruments for data collection

f. Not being dishonest

g. Not using force to get evidence

h. Not depriving respondents of their privileges.

To begin with, consent and approval of the leadership of the University of Ghana, the University of Education, Winneba and the NCTE were sought before conducting this study on their premises. Official introductory letters collected from the Higher Education department with a brief description of the proposed study were also used to seek these permissions. Consent letters were also given to the respondents prior to the interview sessions with them and appointments were scheduled at the conveniences of the respondents as far as places and time were concerned. A brief introduction of the thesis was as well given to the respondents to aid their understanding of the topic area. Approvals were also sought from the respondents before the interviews were carried out and tape recorded. I also indicated to the respondents that the tape recordings of the interviews would be destroyed at the end of the study and that it was solely for academic purposes. Respondents were also assured of issues of anonymity and their confidentiality in order not to invade their privacy. This was done by leaving out the names of the respondents who participated in this study. Efforts were also made not to

misrepresent responses from the interviewees and also to be fair during the transcription of the interview data. With regards to the documents used in this study, figures and statements used during the analysis were not misrepresented in order to not to arrive at a preconceived conclusion.

5 PRESENTATION OF DATA, ANALYSIS, AND DISCUSSION

5.1 Introduction.

This study sought to investigate how the funding relationship between the government and public HEIs has evolved and how the public HEIs are engaging and responding to the development in Ghana. The principal focus of this discussion centers on the organization of HE funding in Ghana and the strategic behaviors of the HEIs as a response. The results of the findings presented are discussed with reference to the research questions, literature review and the strategic response model (Oliver, 1991) adopted in this study. The discussions of the findings from the fieldwork will help the researcher to identify some related issues or otherwise with regards to the organization of funding in the HEIs as well as also show some identified patterns in the changes and the strategic behaviors that have taken place as a response. The discussion presented is therefore structured around two main areas: organization of HE funding in Ghana and university strategy. The study also sought to discuss how HE institutional leadership interprets and influences its funding relationship and strategies. This chapter therefore presents and analyzes the study findings on each individual research question.

5.2 State-Higher Education Funding Relationship Development

In order to understand the strategic responses and the revenue generation strategies of the public HEIs in Ghana, it is important to discuss the changes that have been taking place in the HE institutional environment with regard to public funding relationship with the government since the 1990s. Higher education in Ghana before the 1990s was largely free with no tuition fee in addition to government providing for accommodation (Sawyerr, 2001). Students were also in addition given allowances and stipends to defray incidental expenses (Chambas 1998). The year 1992, in particular, is an important year in the political and economic history of Ghana because it was the year that heralded the introduction and the commencement of

multiparty democracy after the then Provisional National Defence Council (PNDC) allowed a constitutionally elected government to be constituted after decades of political instability and military dictatorship. It was also the period where the new and current constitution of Ghana was passed. The new constitution mandated the government to fund education from the basic to the tertiary level. But faced with economic challenges, the new government adopted the IMF's structural adjustment programme which had a negative effect on the funding of education because the programme sought to encourage the government to cut public expenditures including higher education. In addition to this, about 85% of foreign loans received funded primary education at the expense of higher education (Saprin 1998). It must be noted however that the changes in the funding of higher education started just before the turn of the 1990s with the implementation of the Economic Recovery program (1987-89). This and the period after led to a number of significant changes in the financing of higher education including the increment of private higher education and the introduction of cost-sharing. In fulfillment of the conditions of the Structural adjustment program, the government expenditure in higher education started to decrease. For example, in 1996, the government provided only 73.7% of the university's funding requirement leaving a deficit of 23.3%. The trend of funding cuts continued in 1997 when the government funded only 61.5% of the total funding needed by the universities and by 1999, the deficit recorded was about 40% (Ghanaweb 2005). At that time, it had become apparent that the government cannot fund tertiary education alone especially with subventions for the payment of students' residential and academic user fees. This led to the introduction of cost-sharing in 1997. This was borne out of the infamous Akosombo accord that divided the responsibility of higher education funding between the government (responsible for 70 percent of total funding) and three sources (30 percent) including university internal revenue-generation, private donations, and student tuition fees. This also led to the introduction of student academic and residential facility user fees in 1998. This was met with fierce resistance with some students embarking on street protests and demonstrations (Ghanaweb 2005). Statistics given by the then executive secretary of the NCTE in 2000 showed that government budget on higher education was $23,870,359 which represented 12 percent of the total government education budget to all public universities (Atuahene, 2015). With the rising rate of participation and increasing cost of education, the problem of higher education financing compounded in 2001/2002 academic year which triggered a threat from the Committee of Principals and Vice Chancellors (CVCPs) to close down the universities or cut enrolments if the situation of funding wasn't

brought under control (Ghanaweb 2015). This in part led to the setting up of the Ghana Education Trust Fund (GETFund) which was passed by the Ghanaian parliament on August 25, 2000, to generate additional income to support the nation's educational system at all levels especially with regards to infrastructural and academic facilities. The fund was financed by raising the already existing value-added tax by 2.5%. The GETFund has however faced some challenges with alleged misappropriations. For example, the Ghana national union of students in 2004 filed a complaint to the government about the transition of the 2.5% value-added tax allotted to the fund (Atuahene, 2015). The GETFund was required to fund higher education institutions through the NCTE (GETFund Bill 581). The NCTE was specifically set up to coordinate affairs between the tertiary institutions and the state. The NCTE was set up in 1993 to replace the National Council for Higher Education (NCHE) which was established in 1962. This NCTE is charged with the responsibility of overseeing the budget of the higher education institutions together with their funding needs. It is also mandated to advise governing councils of HEIs, including proposing appropriate measures for generating funds for their operations. It thus contributes a lot in terms of the management and funding of tertiary education in Ghana. Currently, the main funding sources of higher education institutions include the Government, public HEIs, consumers and the private sector (Duweijua and Newman 2014). The two (2) major sources for revenue mobilization for HEIs include public funding which constitutes about 57% of 99% of it is earmarked for staff emoluments). Second is private funding which also makes up for 43% (NCTE Budget 2015). The above development of higher education funding, therefore, shows how the relationship with the HEIs has changed with the greater burden being put on the institutions and the consumers of the education. The above funding development is consistent with the various interview responses from both the NCTE and the Ministry of Education. Both officials in their responses agreed that about 8% of the national budget is allotted for the education sector of which about 19% goes to tertiary education. They added that about 90% of those funds granted by the government go to the payment of the emoluments of both the academic and non-academic staff of the universities. What this means is that, the trend of diminishing government subvention as identified in the early 1990s and 2000s still persist and is even worsening despite the introduction of the GETfund and cost sharing. This is evident in the response from the NCTE official who stated that "*the universities always require more but they basically get nothing. They don't even get anything from what they ask for"* (NCTE official, 27/07/2016). However, it is worth commenting that the pattern of worsened funding relationship between the state and the HEIs

in Ghana is not a peculiar case. As reported by the World Bank Edstats (2008) and Jongbloed (2000), this is a trend most evident in many of the developing countries.

5.2.1 Funding models development

As part of the funding development in Ghana, it is also important to discuss how government allocation to the public HEIs has also evolved. As posited by Jongbloed (2000), there exist four main funding allocation models. These include negotiated funding, input-based funding, output-based funding and finally student-based funding. Budgeting and funding allocation models have also gone through a series of gradual changes and development since 1990 to its current state which when inferred from data is much similar to the negotiated and the input based funding models as categorized by Jongbloed (2000). According to Newman (2014), the funding allocation model in Ghana during the 1990s was based on the incremental and negotiated budgeting models where the annual financial request of HEIs were negotiated with the Ministry of Finance by the then National Council for Higher Education. This mechanism was not based on the volume of activities undertaken by the institutions or national objectives for tertiary education. This prompted the government to reform the allocation model to make it more programme-linked and student based. Norms were also developed as part of the new model which served as standardized input factors with students being the unit of production. This funding model was similar to the student-based funding model classified by Jongbloed (2000). It was however called the norm-based mechanism for budgeting and fund allocation. As indicated by (Newman 2014), this model was later abandoned as the government could not meet the increasing cost of education triggered by the increased enrolment of students. For example, the difference between the norm-based costs of higher education and financial allocations made to the institutions by the state was 28.9% in 2005/06 and 23.4% in 2009/10 (Newman 2014). Thus the huge deficits accounted for the breakdown of the norm based model, which as a result led to the reversion to the current incremental and negotiated budgeting which is without due regard to HE policy and national development objectives. Presently, the analysis of the study data shows that the funding allocation is based on the previous year's budget allocation with little variations and is also not based on the real needs of the universities. The institutions rather present their budgetary demands to the NCTE based on various line-items, which are repeated yearly without regards to the changes in the volume of their activities. Speaking to the issue, the NCTE respondent indicated that the allocation from the Ministry of Education is based on biddings and negotiations with the MoE with

regards to the budgetary demands the NCTE has received from the higher educational institutions (NCTE, 2016). Recounting the process further, the respondents stated that

"they (the HEIs) compile their budgetary performance for the previous year and based on that they provide us with projection of their budgetary requirements for the upcoming year and once, they bring in their entire budgetary requirement, NCTE will then compile them together and it becomes the tertiary education sector budget for the coming year (NCTE, 2016).

An account by Bailey, Cloete, and Pillay (2010) also explains that the NCTE normally defends the accumulated budget from the HEIs at the MoE first, followed by the Ministry of Finance and Economic Planning (MOFEP), and then finally at the Parliamentary Select Committee on Education. Once the budget is approved, funds are then released to the NCTE for onwards disbursement to the institutions. The funds allocated and disbursed are based on the particular needs of the respective institutions. It should be noted that the budget allocated to the tertiary education sector is determined according to how much funds are received from the MFEP and not on the basis of the cost or the total budget request received from the tertiary education institutions. The levels of funding agreed between the NCTE and MoFEP become part of the Public Appropriation which must be approved by Parliament (Bailey, Cloete, and Pillay, 2010). This point to a conclusion that Ghana currently runs a negotiated funding allocation model which is in congruence with one of the four main models classified by both Jongbloed (2004) and Ziderman (1992) in the literature. Problems have however been raised regarding the negotiated and incremental funding model being used. As argued by one respondent, there is a problem with how funds are allocated and disbursed i.e. the funding allocation mechanism. In his view, the current model which is incremental and negotiated budgeting model is somewhat deficient and this has contributed to the challenges the universities are faced with regards to funding as it gives little room for budgetary planning and the quantum of activities undertaken by the universities. In addition, the official noted that the line-item and incremental budgeting approach is not linked to any output and so it does not encourage high performance from the institutions (NCTE, 2016). This also confirms to the assessment by Girdwood (1999) who indicated that the line item funding model does not provide incentives for reform and innovation.

5.3 Revenue Generation Strategies and other Strategic Sesponses to Funding Pressures

While in the abstract public funding decrement poses a significant peril to HEIs, in practice, public universities adopt a range of strategic actions that empower them and reduce their vulnerability. In a bid to understand the actual practices of strategies and other income generation activities adopted by the HEIs in response to shortfalls in public funding, this study has also identified from empirical data analysis certain strategic practices common to the case studies. These are explained in detail below. It is worth stating that these practices of diversified funding strategies are in line to Pfeffer and Salancik (1978) assertion that public universities tend to seek out new resources when they are deprived of essential resources.

5.3.1 Revenue from educational services

Generating income from tuition fees is one of the revenue generation strategies identified in both the UG and the UEW. This constitutes the highest percentage of their internally generated funds. Both universities, for instance, have had an increment in tuition fees since the introduction of cost sharing and Academic Facilities User Fee (AFUF) in 1997. Similarly, the institutions have also intensified their efforts to attract foreign students who pay much higher and full tuition fees compared to the subsidized fees paid by the local students. Another area of revenue generation was also the introduction of short-term courses for industries, evening courses, and weekend programmes to meet the increased participation and demand for higher education in the country. Both universities have also opened satellite campuses in strategic locations through the distance education programme to increase their enrollment and tuition fees. The enrolled students also pay much higher fees than the students enrolled in the normal programmes. A respondent from the UG, for example, stated that tuition fees make up of about 60% of the university's IGF. In addition, both schools have also introduced high demand courses, especially in the business field at high tuition fees. This implies that the universities have taken financial advantage of the high demand for tertiary education which exceeds the supply as posited by Geiger (1991).

5.3.2 Sales of goods and commercialisation of university activities

Non-traditional revenue sources like the sale of university products and the commercialization of some of the institution's activities were also identified as another strategy adopted by the universities. Some of these activities include the sale of admission forms, renting out of university facilities and halls of residence, operating bookshops, etc. For instance, the University of Ghana has invested in building halls of residence aside the traditional government buildings which it hires to some of its students at a higher price. The school has also built a guest house which is open to the public. Similarly, a respondent from the UEW also indicated that the university has set up its own printing press and the production of yogurt to generate additional income. Thus, both universities through the commercialisation of their activities and facilities have created opportunities to source supplementary income aside government funding.

5.3.3 Income from research services

Both universities generate extra income from their research activities. This is reflected most in their strategic plans which indicate how boosting and commercializing the universities' research activities could earn them additional revenue. The UG, for instance, has established many academic units and institutes that perform contract research for both the government and non-governmental entities for a fee. Examples of such units are the Institute for Statistical, Social and Economic Research (ISSER) and the Noguchi Memorial Institute for Medical Research. According to UG's strategic plan, the university intends to build a strong research community that could also attract additional funding to support their administration. One of the interviewees mentioned that the university had established the Office of Research, Innovation, and Development (ORID), an administrative research support unit, in 2010 to promote the university's research activities. ORID's mission according to the University of Ghana's research report in 2014/2015 is "to promote, coordinate and facilitate research activities in the University; and also lead the development of the university's strategic plans, including business plan and fund-raising strategies". This office according to the respondent has led to a significant increase in both internal and external funding for the university accrued from the university's research activities. For example, according to the UG research report in 2015/2016, funds from research have contributed extensively to the university and its global rankings. The report stated that, at the end of the 2014/2015 academic year, the University had signed various research grant agreements with a total value of USD 52,524,883.11 (UG research report 2015/2016). Some of the major donors the report

mentioned include the Bill and Melinda Gates Foundation, DANIDA, DFID, European Union, FAO, IDRC, Leverhulme-Royal Society, NIH, USAID, World Bank (WB), and the World Health Organization (WHO).

The establishment of research management offices was also an adaptive strategy by the universities to generate income from research and consultancy services. This way of generating revenue supports Clark's (1998) view that most universities engage in intensive research activities often because of revenue.

5.3.4 Autonomy and new organisational structures for resource generation

Organisational autonomy of public HEIs has also been identified as a key strategy for universities to diversify their income generation activities (Jongbloed 2004, Hassan 2007). Just as opined by Jongbloed (2000) in his policy option for resource generation, the decentralization of higher education with greater institutional and financial autonomy was also identified in the higher education sector in Ghana. Having institutional autonomy to generate additional income was very important for the universities because as stated by the OECD (2008), income generative activities of universities would not be possible if the government and the regulative frameworks do not allow them to do so. A respondent from the NCTE emphasized the importance of institutional autonomy to revenue generation by stating that

"They (universities) don't have to live by what they are given by the government and because they are autonomous institutions, they can go and look for their own funding elsewhere but that should also conform to the financial administration act 2003 of Ghana" (NCTE 2016).

He stated further that, *"the universities are now by law autonomous institutions and that gives them the right and freedom to go for other additional external funding but the government is not going to leave them in the legs"* (NCTE official, 27/07/2016).

This is addressed in Varghese's (2013) assertion that all public HEIs in Ghana are autonomous and they draw their autonomy and authority from the constitution of Ghana and by their respective laws or acts of parliament that establishes them. This gives them the power among other things to manage themselves and to diversify their sources of funding. The UG, for instance, had its autonomy status strengthened when the University of Ghana Act 2010

was passed by the Parliament of Ghana in 2010. This reform gave the university the power to introduce cost-recovery measures like charging of fees for the services offered by the university (Varghese 2013). Though the state respects the legal autonomy of the public HEIs to manage themselves, they are also subject to the restricted monitoring roles of government agencies like the NCTE and the MOFEP. But as revealed by a respondent on this subject matter, the universities have over the years resisted excessive financial scrutiny from government agencies involved. This indicates how much their autonomous status means to them as a legal condition for additional revenue generation. This is reflective of the trend of corporatization and deregulation of HE as posited by Zhang et al (2016) in the last decade. In addition to the universities autonomous statutes that have been enhanced, the universities studied have also established new structures and offices that have enhanced their resources generation activities. Examples include the ORID at the UG and the Externally Funded Projects Office (EFPO) of the UEW which was also set up in 2007 to enhance the university's income for donor-funded projects. This finding is consistent with other studies (Gumport and Pusser 1995; Leslie, 1995) which also identified how new organizational structures are a panacea to generating funding from new sources.

5.3.5 cost-minimization strategy

In addition to revenue diversification, analysis from data also show that both the UG and the UEW adopted the strategy of spending down or prudent financial management through deliberate cost-cutting strategies to cope with the chronic decreased government funding. For example, a respondent from the UEW posited that, as part of the university's effort to cope with the decreased public funding grants, the university intends to adopt the best practices in financial management in order not to overspend its budget. He added that the university will continue to implement strategies that will ensure value for money for funds disbursed, (UEW, 2016). Similarly, cost reduction strategies were also hinted by the UG respondent who explained that the university is making efforts to reduce financial inefficiencies in the system in order to save the institution's already scarce resources. The respondent further stated that in the midst of decreased public funding, the university has engaged in the strategy of cost reduction. He explained that the university now controls or cuts it budget and limits it to the expected revenue that they anticipate to generate during the year. This he concluded will enhance the judicious management of the university's scarce financial resources both at the central management and the departmental levels (UG, 2016).

The cost reduction strategy identified in the study thus reveals that the universities are adapting to the public funding inadequacy by cutting or adjusting their budget according to their anticipated income. Cost-reduction strategy was thus identified as a management tool for using existing sources of income as efficient as possible. or the institutions.

The strategies public universities HEIs in Ghana have implemented show similarities to what was identified in literature and practices in other countries.

5.4 Explaining Patterns of Strategic Responses

Public universities in Ghana have responded to decreased public funding realities by adopting several tactics such as revenue diversification, new organizational structures, and reforms, commercialization and cost reduction strategies. Based upon the foregone discussions on the strategic responses of universities in relation to the public funding pressures in Ghana, some patterns of the strategic responses have been identified using Oliver's (1991) strategic models and the adapted indicators of this study. It must be indicated that the strategies identified are not mutually exclusive but a mix involving the strategies of acquiescence, compromise, and avoidance.

First, is compromise through the strategy of *bargaining*. The compromise strategy centres on an organisation negotiating with its institutional constituents to reach a common consensus. The study reveals that the public universities use at some point the tactic of bargaining to negotiate for improved public funding that satisfies both the government and the public HEIs. The negotiation for cost-sharing introduction and the Akosombo declaration in 1997 where the government agreed with the universities on a 70% public funding and 30% private funding is an example. Similarly, the negotiations that characterize the budgetary negotiations every year with the NCTE are also an example of a strategic response in the form of compromising where both the government and the HEIs come to a consensus on the budgetary needs of the HEIs. This strategy is thus reflected in the negotiated budgeting model as revealed by the findings. However, it must be stated that such negotiations do not seem to have had a positive impact on the universities–government funding relationships over the years. With the strategy of compromise, compliance is only restricted and organizations are driven by their self-interest. With regard to this study, the universities' interest first is to bargain to increase if possible their budgetary allocations from the state.

Another strategy seen employed by the two universities is acquiescence responses. This strategy according to Oliver (1991) involves a situation where organisations conform to institutional pressure with the least resistance. The study revealed that the universities in general haplessly accept whatever the government allocates to them. The universities employ the tactics of compliance with the current government funding system. In addition, the universities also responded to the funding pressure by adaptation. This is reflected in the tactics of perseverance and cost reduction strategies that the universities employed in order to accommodate the chronic decreased funding from the state. It can be inferred from the data that one possible explanation to this behavioral response is that the universities survival is dependent on their responsiveness to the limited public funding especially when about 99% of it is earmarked for the emolument of their staffs. They therefore had to cut their budget according to the anticipated limited government funding regardless of their real needs.

The third and the last strategy the universities employ to respond to the funding pressure was *avoidance.* This strategy of revenue generation is relatively well-known and is adopted by many organisations. Its importance has also been widely spoken of as a response to institutional pressures (Oliver 1991). Avoidance, as defined by Oliver (1991 p, 155), involves an attempt by an organization to preclude the necessity of conforming. In this study, the findings show that the public universities employ the tactic of *buffering* to attempt to escape or reduce the effects of public funding pressures by diversifying their funding sources. This is reflected in the varied revenue generation strategies that the HEIs use to reduce their dependence on public funding. These strategies already discussed above include revenue diversification, commercialization of universities facilities and research, income from tuition fees and educational services, etc. For example, a respondent from the UEW stated that

the school's focus is now to reduce the effects of over-reliance on limited government subvention and directs its effort along implementing alternative funding sources, improving management structures and also introducing more demand-driven courses in order to boost the school's IGF (UEW 2016).

It is worth stating that data for this studies show that the public universities employed diversified funding base strategies to buffer the impacts of public funding pressures in order seek stability and enhance the predictability of their expected income. This also confirms the assertion of Mitchell (2014) who posits that revenue diversification is a good strategy to reduce resource dependence and thus offers a lower vulnerability to external control. This

strategy of avoidance through buffering was thus identified in the study as the main strategy employed by the universities to respond to the changes in public funding of universities in Ghana.

It is thus notable to observe that the public universities included in this study use a multitude of divergent response strategies to address public funding pressures exerted upon them. It is also important to state that the researcher did not see anything from the findings that suggest the use of the other remaining two strategies put forth by Oliver (1991), that is, defiance and controlling. Starting with the strategy of defiance, nothing from the data suggested any use of it. This is understandable in the sense that the cases studied are public universities whose staff emoluments are covered entirely by the government. Data from this research also indicates that out of the meager public funds allocated to the institutions, about 90% plus is earmarked for the payment of salaries. Total dismissal or unequivocal rejection of public funding altogether would mean an additional burden of paying for staff salaries themselves which would have been extremely difficult. It would also be difficult for the public universities to exit the public HE space since they are under the control of the state.

A similar argument can be made for the non-detection of the strategy *manipulation* in the study as it would have been difficult for the public universities to exert direct power or control over the government in order to coerce it to increase its funding allocations to the universities.

5.5 University Leadership Interpretation and Influence

This study also sought to find out how various public HEIs' leadership interpret and influence their institutional funding strategies and their relationship with the state. This aspect of the study is an important one because of how important institutional leadership and other internal actors are with respect to their influence on their university's strategic behavior and actions (Mintzberg, 1983). As argued by a number of authors (Clark 2001; Massy 1996) university leaders and administrators constitute one of the main enablers of revenue generation strategies in HEIs because they possess certain powers and authorities.

It is obvious that the institutional leadership of both the UG and the UEW are concerned with the declining public investment in HE. The vice chancellor of the UG, for example, during a speech in 2014 on how public funding to the University has changed considerably lamented

on how government support to the university has decreased from about 90% to 55% of the total university budget in the last decade though he acknowledged that the government of Ghana remains a major funder. UG's and UWE's leadership have also in the past together with other leaders from other public universities expressed worries over the constant diminishing of higher education funding. For example, in 2001 the Committee of Principals and Vice Chancellors (CVCPs) threatened to close down all public HEIs or cut down enrollment if a solution was not found to the protracted under-funding of the universities. This shows that institutional leaders from the public universities are weary of the diminishing funding relationship with the government. This threat by the leaders in 2001 to some extent is an indication of the limited influence that they have on the overall funding decisions regarding allocations to the HE sector. Although there exists avenues for improved funding discussions with the state through the NCTE and the conference of vice-chancellors, the findings reveal that these discussions have had little impact though they continue to negotiate with the state for improved funding. Commenting on the issue, the NCTE respondent indicated that the capacity of university leaderships when it comes to securing funds from the state does not play any major role at all apart from justifying and defending their proposed budget for the year. He stated that although university leadership does negotiate alright with the government through the NTCE, they do not have any major input with regards to what is agreed and released to the universities by the MOFEP through the MoE. The respondent from the UEW stated that

"Sometimes the negotiations with the government for improved funding also take place through the conference of vice-chancellors of the country's public Universities but they are somewhat incapacitated as their requests are normally not met". (UEW, 2016).

The respondent continued that their institutional leaders capacity only matters most when it comes to securing additional funding externally i.e. research grants and donor support foundations as well as entering into other profitable public-private partnership agreements. In UG's case, for example, one pro-vice chancellor is the head of the ORID which is a research and grant management office created by the university. The findings thus show that the various university leadership have been able to impact greatly on strategies regarding how funds are generated internally from other diversified and alternative funding sources and externally from private donors which have improved their IGFs. This is reflected in the various alternative revenue financing strategies that have been discussed above and the

detailed strategic plans developed by the universities for that purpose. For instance, under the priority of financial performance of the UG strategic plan, the institution intends to strengthen further the capacities of the newly created collegiate system to enhance their mobilization of resources at the unit level. It can also be inferred from the data that a contributing factor to the university leadership impact on internal funding strategies is somewhat due to the autonomous status of Ghanaian public universities which grants them and their institutional leadership among other things the financial autonomy to acquire additional funding to supplement government grants. This, therefore, shows the importance of institutional autonomy to the ability and the capacity of university leadership to influence strategic responses (Deogratias, Bugandwa and Mungu 2009).

In sum, what can be inferred from the data is that, institutional leaders influence on the national budget process with regards to allocation to the HE sector is limited. This is because the decision of allocation to the sector is normally taken by the MoFEP and the MoE with little input from the leaders of the Universities and the NCTE who only serves as the liaison between the universities and the state with no real authority to enforce adequate allocation to the universities. This inference is also due to the fact that, although the universities duly present and negotiate their required funding and budget to the MoE through the NCTE, this study shows that the universities receive far less the agreed and requested funding from the government. On the other hand, the data available shows that the leaders of the universities do have a strong influence in determining institutional strategies for dealing with the outcomes of the national public funding process. This is evident from the various strategies discussed above and the detailed strategic plans that have been designed to mitigate the decreasing public funding. In addition, the increasing IGFs component of the universities budgets in relation to government subventions is also an indication of the strong influence of the university leaders on their internal revenue generation activities.

5.6 University Strategy and Responses

Having delved into the revenue generation strategies which serve as the strategic responses of public HEIs to the funding development in Ghana, it is prudent to discuss some drivers for revenue generation strategies identified in the study. Simply put, these drivers constitute various factors that facilitate or act as catalysts for the changing funding relationship between

the state and the public HEIs in Ghana. The discussions of the drivers are important because they constitute part of the universities' organizational fields (Scott 1991).

5.6.1 Drivers to State-HEIs funding relationships and University funding strategies

Several drivers have been identified from the analysis of interview and documentary data collected for this study with regard to revenue generation strategies in public universities. These drivers to strategy were identified from both internal and external sources. The findings of this study have identified government economic challenges and increased participation rate as the factors driving funding strategies in the public universities. Risk management has also been identified as an internal driver that influences the behavior and actions of the case studies. These drivers are discussed below.

Government economic challenges

The rising constraints on public funding together with the increased rate of participation in HEIs in Ghana have been identified as the major environmental factor encouraging the development of new diversified and alternative funding strategies in the universities. The current economic context of Ghana as reported by the respondents has given rise to the decrease in public funding to the higher education sector as sectors like health and basic education have assumed more importance to the neglect of higher education. A respondent retorted that the focus on education in recent years has been on basic and secondary education as the government intends to achieve a free compulsory basic education (FCUBE) as well as a free secondary school education. Majority of the funds attributed to education in general thus go in that direction he concluded. The respondent added that because of the country's economic challenges, the government cannot meet all the demands of the whole educational sector hence the relative neglect of HE (NCTE 2016). The above respondent's assertion thus confirms the Jongbloed (2000) arguments that economic challenges and the scarcity of resources in developing countries are one of the major factors inhibiting public funding of higher education. This economic challenge has therefore led to the development of other alternative funding sources to supplement the scarce resources from the government as indicated by the respondents in this study. This finding, therefore, corroborates Pfeffer and

Salancik (1978) assertion that public HEIs that are deprived of critical funding will seek new resources.

High student enrolment and participation rate

Analysis of the interview and documentary data both historically and currently also points to increased students enrolment as a panacea to the diminishing public funding in the Ghanaian HE sector. The continued expansion in enrolment in pre-higher education and HEIs due to rapid expansion in youth population without the corresponding public investment has created difficulties for the sector. For example, according to the Ghana Education Sector report (2016), the gross enrolment ratio (GER) in secondary schools has increased from 36.5% in 2010/2011 to about 49.6% in 2015/2016. Similarly, enrolment in public universities also increased from 107,058 in 2010/2011 to about 147,180 in 2014/2015. Analysis from NCTE documents also shows that between the academic years of 2001/2002 and 2007/2008, enrolment in public universities increased by 103%. Again as opined by Mathews (2017), enrolment in tertiary education in Ghana grew from 12000 students in 1987 to 54000 in 2002. As discussed earlier in the funding model development section of this study, this continuous increase in student enrolment over the years led to the collapse of the norm-based funding model which had the student as the focus of costs and redistribution of funds that was in use during the 1990s as the government could not meet its rising cost (Newman, 2014). This finding of continued growth in demand for HE and its accompanied increased cost in Ghana thus bears truth with one of the four factors identified by the World Bank as the catalysts driving higher education funding challenges in Africa. This challenge has also encouraged HEIs to diversify their funding sources.

Risk Management

Risk management or mitigation which emanates from unstable and irregular public funding allocations from the state was also identified from the data analysis as a major factor driving strategic funding decisions in the HEIs studied. The public universities have come to an understanding that the erratic and sometimes the delayed release of funding from the government can no longer be relied on. For example, some respondents reported that, the funding received from the government which constitutes their main funding source had not been able to cover all their cost in times past. Therefore they argued that it is risky to depend

solely on government subventions as a single funder. They have therefore resorted to developing other strategies that would mitigate any adverse consequences. A respondent from the UEW specifically stated that,

"Government subvention has become a little problematic now. Even though it is not canceled, it does not come as regular as it used to. Sometimes we have to wait for about three months before we get subvention mostly for payment of salary" (UEW, 2016). The finance officer in the same institution also in the preface of the UEW Budget (2015) stated that "the school has made provision for non-receipt of subvention for Goods and Services".

Similar fears of risks were also identified from the analysis of the strategic plan of the UG. It states that "the way the University is funded will change as a result of expected changes in the public financing of education and in the relationship between the University and the Government of Ghana" (UG Strategic plan,2014-2024).

This implies that efforts to make to reducing the vulnerability resulting from changes in the public funding practices are deemed very important to the top managers of the schools. Analysis of UG's strategic plan towards the funding pressure indicates that the university has put across measures that will make the institution financially more independent as it has acknowledged that the reliance on government grants becomes a liability, especially during the present time of economic difficulties in the country. The UEW respondent reiterated that, should the trend of undue delays and sometimes the non-release of funds from the government continue, it could possibly pose serious risks to the university in the pursuit of its strategic objectives although he admitted that the strategic plan (2014-2018) is not much focused on funds from government but rather on diversified internal sources of funding which the university controls and can manage.

This finding does imply that risk mitigation constitutes one of the main factors that drive strategic responses in the area of alternative and diversified funding in the HEIs which also corroborates the findings of both Clack (1998) and Massy (2009) on the same subject matter.

6 CONCLUSION, RECOMMENDATIONS, AND SUGGESTIONS FOR FUTURE STUDIES

This chapter focuses on the various conclusions of this study and greater attention will be geared towards answering the research questions designed for the study. In addition, recommendations and suggestions will be highlighted for future studies about the funding of higher education in Ghana. Also, major challenges faced during the study will be highlighted.

6.1 Conclusions of the Study

6.1.1 How has the funding relationship between public universities in Ghana and the state developed since 1990?

Although Ghana's GDP has increased and has also achieved a stable democracy since 1993, it has not reflected in a good funding relationship with the HE sector. The findings of the study revealed that the HE funding landscape in Ghana has changed from the era of full funding in addition to students living allowances to the introduction of cost sharing in the 1990s. The results show that, though the government is still the major funder of HE in Ghana. The government subventions mostly cover university staff emolument instead of basing the funding on fees per students raised by the HEIs thereby leaving the universities to their fate on other recurrent and capital expenditures. The GETfund set up in 2000 to cater for capital expenditure has also not lived up to expectation. Results also show that, though the percentage of GDP allotted to HE sector has gone up over the years, it has not matched up with the growth of HE in the last two decades with the expansion of students' participation rate. Empirical findings indicate that this has resulted in huge funding gaps that have made the financing of teaching and learning a burden for HEIs in Ghana. One contributing factor identified from the study is the issue of funding allocation model. This has also changed from a norm-based funding model which had the student as the unit of allocation to the current line-item budgeting and incremental approach which according to the study is not based on any specified outcome and real needs of the HEIs. As indicated by the results, a major cause for the abandonment of the norm-based model was also the expansion in student numbers which the government couldn't meet as the years went by.

6.1.2 What are the main income generating strategies developed and implemented by public universities in Ghana as a response to changes in their funding relationship with the state?

In response to the institutional pressures of diminishing public funding, the study finds evidence to support the application of three of the five strategic responses as categorized by Oliver (1991). These responses are reflected or indirectly inferred from the actual strategies and the income generation activities the universities have adopted as results of changes in government funding. The responses identified are a mix of Acquiescence, compromise and avoidance strategies. It was revealed that the universities in some instances chose to respond to the funding pressure by simply conforming or adapting to the pressure with tactics such as cost reduction or cost minimization strategies whereby the universities controlled their cost or aligned their budget to meet whatever funds they are being offered by the government. This reflects the strategy of *acquiescence* where institutions conform consciously to external demands by perseverance. The second pattern of response was also *compromise*. The findings indicated that the universities also responded with the tactics of bargaining whereby they negotiate with the government for improved funding relationships. Results reveal that it was through such tactics that in part led to the introduction of cost sharing and the setting up of the GETfund. These tactics of negotiation and compromise also characterize the present funding allocation model of the line item and negotiated funding model where both the state and the HEIs negotiate on submitted budget proposals to reach a consensus. The last strategy identified with evidence in the study is avoidance. With this, the universities attempted to buffer the effects of the funding pressure through deliberate alternative revenue generation and diversification programs like the commercialization of university activities, revenue from educational services, income from non-traditional sources, new structural reforms and other donor sources. The enhancement of the institutional autonomy by parliamentary acts also helped the universities to somewhat buffer pressure from government funding by empowering them to engage in the income generation activities listed above.

The study reveals that the universities respond to public funding cuts to gain stability and enhance their teaching, research and learning activities. The results thus lead to a conclusion that changes in public funding in Ghana have had an impact on the strategic behaviors of the public universities studied. This is an indication that universities are also strategic actors and strategic actions in universities are also valid just like other corporate organisations. An example is the presence of strategic plans identified in all the universities studied.

6.1.3 What influence does the public university leadership have on their institution's funding relationship with the state and on the institution's income generating strategic responses?

The study also sought to find out what roles do the institutional leadership play in the funding relationship with the government and also in their strategic responses? The findings of the study indicate that institutional leadership capacities of the universities are not strong in terms of influencing the government to increase its funding to the universities although they are engaged in constant negotiations with the government. There were instances where even the agreed budgets with the government through the NCTE did not match up with the funds released to the institutions. However, the results show that institutional leaders play a major role with regards to internal strategic responses of the universities against the backdrop of decreasing government funding. The implementation of Institutional strategic plans by institutional leaders was identified as a major strategy that guided the universities to engage in various alternative revenue generation strategies. It was inferred from the study that, the strengthening of the university's autonomous statutes and their leadership by acts of Ghanaian parliament was identified as a major reason that increased the capacity of the institutional leaders' autonomy and self-regulation to engage in strategies of diversified income generation to supplement government limited funding. The thesis thus concludes that larger part of the universities internal strategic actions for revenue generation were deliberately triggered by the institutional leadership where their capacity and influence is much stronger relative to its funding relationship with the government.

6.2 Recommendations of the Study

This section presents the recommendations of the study that could improve the public funding challenges of HE in Ghana and the revenue generation strategies of HEIs.

The researcher suggests that Ghana through the NCTE should develop a new mechanism for allocating funds like the performance-based funding system with specified performance indicators that promote efficiency in the management of scarce resources. The new funding model should also be based on norms or on the real needs of the Higher Education Institutions. Secondly, to improve government public funding to the HE Sector, the researcher suggests again that the government allocates a fixed percentage of GDP to the HE sector in order to make allocations more stable and predictable for effective planning by the HEIs.

Lastly, since it has now become a reality that the government can no longer support the recurrent expenditure of HEIs with the exception of staff emolument, the government through the NCTE should initiate the appropriate policies that will enhance the revenue generation and the entrepreneurial activities of the universities to make them more self-sufficient and wean them from government supports.

6.3 Openings for Further Studies

This section presents some avenues for further research that could broaden the current area of study. First, we suggest that the scope of the study is broadened to include the revenue mobilization strategies of private HEIs that have expanded as a result of public funding cuts in the public HE space and increased participation rate in Ghana.

Secondly, the researcher suggests that additional in-depth research is done on the factors that hinder the government's investment in HE and how that can be rectified or improved at best.

Thirdly, it would also be interesting to investigate solely the university conditions that enhance or hinders the revenue generation capabilities of public HEIs in Ghana.

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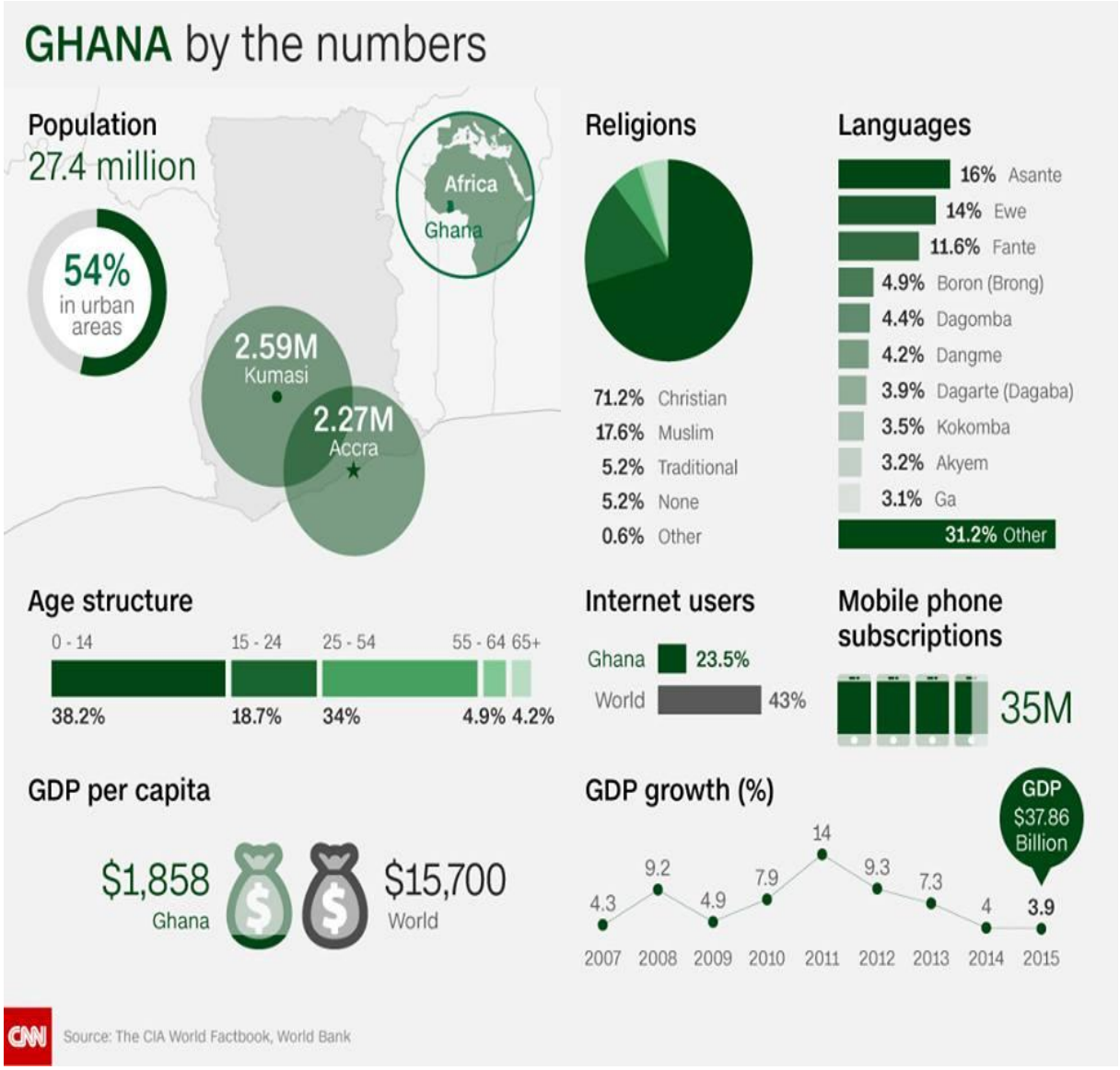
APPENDIX 1

GHANA BY THE NUMBERS

Below is a pictorial Country background of the country Ghana put up by the CNN concerning the demography, the economy, religion distribution, languages and other details of the country Ghana in 2015. Although the researcher finds its useful to include this in this study, he accepts that the figures of the economy and other numerical distributions regarding the country could be somewhat complicated with the unavailability of accurate data and so the researcher cannot not fully vouch for the accuracy and the credibility of these numbers put forth by the CNN with source from the CIA World fact book, World Bank.



APPENDIX 2

INTERVIEW GUIDE

PLANNING AND FINANCE OFFICE (UNIVERSITY)

- What are the main sources of fund available to the university?
- If you were talking in terms of percentage, what percentage will you allocate to each of the following?
    a) Government funding
    b) External funding i.e. donors and foundations
    c) Institutionally generated funds
- How does the university secure funds from the state?
- Does the university furnish the state with its budget before the allotted funds are decided?
- What percentage of the university's budget is financed by the state as basic grants?
- Does the university receive the same amount of money from state from year to year? If no then on what basis/criteria does the state uses to allocate funds to the university?
- Does the funding from the state adequate for the overall university administration? If No, then
- What strategic measures does the university take to secure maximum funds from the state? i.e. Does the university comply, Bargain to come to a compromise, Challenge or manipulate the state to get what they want. Is it also the case that the university avoids the state and looks to other funding sources as its main funder? Or does that university have other strategies they use to induce much funds from the state.

- What do u make of the dwindling financial support from the state in recent years despite some growth in the country's economy? What would you suggest that your university does in order to avert this?
- How does the university also secure funding from other donor agencies and fundations? I.e. is it mainly secured by the central administration, the faculty, departments or at the individual level?
- How dependent is the university on donor agencies for its financial support?
- How does the university also handle its funding relationship with the donors in order to secure adequate funds from them? In terms of the strategies described above.
- What would you say about institutional leaders' capacity in obtaining funds from its environment i.e. state and donor agencies?
- In all, how dependent is the university on its environment for financial support and how would you describe its relationship with it?
- Is there anything you want to add?

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MINISTRY OF EDUCATION/NCTE

- What percentage of the ministry's budget is allocated to universities in Ghana?
- How dependent are the universities on the government for financial support?
- What percentage of the university budget does the state fund? I.e. the Basic grant from the state?
- How does the state allocate public funds to the universities? Does the state have a stable funding allocation mechanism or otherwise?
- Does the government offer the same amount of funds as basic grants to all public universities?

- Is there a form of interactions between the state and the individual universities before the amount to be funded is agreed upon?
- If so, then what can you say about the strategies the universities adopt in order to secure adequate funding from the state? That is do they just accept what the state offers or they bargain and manipulate to secure adequate funding
- How do you interpret the university's strategic behavior in response to their funding relationship with the environment?
- What can you say about the capacity of university leadership when it comes to securing funds from the state? I.e. do they play any major role at all?
- How would you describe the governments overall funding relationship with the state?
- Is there anything you want to add?