

FUNDING DILEMMAS IN TERTIARY EDUCATION INSTITUTIONS: THE CASE OF INTERNALLY GENERATED REVENUE (IGR) IN PUBLIC UNIVERSITIES IN GHANA

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DECLARATION

I, Paul Kwasi Mensah, declare that:

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DEDICATION

This work is dedicated to the Almighty God for his unfailing love and favour

To my children Amoah-Mensah, Gyekye-Mensah, Nyametease-Mensah, Akomeah-Mensah and Antwiwaa-Mensah. I had to complete this study for you to "dream big" and know that with God and determination one can achieve whatever aspirations you set for yourself

To my wife, parents, and family members, I thank you for your love, prayers and support.

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ABSTRACT

Tertiary education institutions in Ghana have been enjoying full financial support from the state. However, recent national financial challenges have made fully-funded tertiary education unsustainable. The decision of the state to cut funding to tertiary education institutions **was** further fueled by the implementation of the Structural Adjustment Program (SAP) policy of the World Bank and its affiliate Bretton Woods institutions, as a condition for attracting international financial assistance to manage its fiscal imbalances. Public universities in Ghana which had enjoyed full state financial support were severely hit by the state subvention cuts. The aim of this study was to examine: "funding dilemmas in university education institutions, with a focus on the management of internally generated revenue for the effective mandate delivery of public universities in Ghana".

Using non-probability sampling, the following four public universities were involved in this study: the University of Ghana, Kwame Nkrumah University of Science and Technology, University of Education and University for Development Studies. This survey study used a mixed method approach whereby self-administered questionnaires and in-depth interviews were the techniques used for data collection. The four main theories which underpinned this study were: neo-liberal ideology, human capital theory, new public-management paradigm and resource dependence theory.

The findings revealed that government appreciates the relevance of university education in the national development agenda. Subvention cuts to the universities however were informed by the national financial crisis coupled with competing demands for social services and infrastructural goods; and not because university education yields less productivity while promoting divergent views unacceptable to government, as compared to basic education. Since a university degree is perceived to enhance employment prospects that guarantee a middle-class life, parents are willing to contribute through cost-sharing to fund their children's university education. The acceptance of cost-sharing has led government to focus its financial responsibility on the payment of workman's compensation in the universities, with fund allocations inadequate to cover the salaries of all categories of staff. There are also delays in subvention payments which force some universities to

contract with banks for loans at high interest rates in order to pay staff, and government does not pay the accrued interest.

The universities' engagement in extensive Internally Generated Revenue (IGR) mobilization for supplementary funds has expanded the workload of its staff without corresponding direct benefits to the staff. The university profession has therefore become less attractive to many quality professionals who only accept temporary engagements at a higher cost to the universities, and government subvention does not cover such temporary engagement costs. The extensive IGR drive often shifts the universities' cost burden to their students, most of whom are funded by their parents. The results have been a reduction in university access to prospective students from poor family backgrounds which perpetuates inequalities in Ghanaian society. Furthermore, the findings reveal that state policy directives are issued to restrict the IGR mobilization efforts of the universities. Also, at different phases of leadership, the government has made several efforts to categorize universities among the revenue mobilization agencies. Consequently, in the 2017 fiscal year, the government issued directives requesting universities to pay 34 percent of its IGR into the consolidated funds to finance government projects.

The adverse impact of the state funding cuts and extensive IGR drive has been increasing student enrollment in favour of the few more wealthy persons in society, and large class sizes with inadequate lecturers resulting in graduates with poor quality training. Finally, the IGR drive has eroded specialization in the universities who mount similar programs attractive to students who have the resources to pay. This has resulted in the training of more arts/humanities than science/technical graduates in the ratio of 60:40 percent respectively instead of the state policy of 60:40 percent for science and humanities respectively.

The study recommends that the universities should lobby the Parliamentary Select Committee on Education to have government subvention payments for workman's compensation released at the beginning of every quarter to eliminate the necessity for contracting bank loans and accruing interest for workman's compensation. Government should insist that a specified percentage of IGR in the universities should be invested in academic infrastructure, including more lecture theatres for manageable class sizes to ensure quality delivery, instead of its decision to access funding from the universities for other government projects. The universities should take advantage of their

existing large markets and team up with the private sector for public-private-partnership ventures in commercial farming, estate management, commercial consultancies and other activities to improve upon their IGR. This will minimize the rate at which their financial burden is pushed onto students which deprives many suitable prospective students of access to university education. The study concludes that the National Council for Tertiary Education (NCTE) Act 454, 1993 should be reviewed by government to equip it to be able to enforce its directives and sanctions appropriately instead of having the mere advisory role that it currently plays. This will be beneficial for the supervision of tertiary education institutions in Ghana.

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LIST OF ACRONYMS

3GU	Third-Generation Universities
AAU	Association of African Universities
ADP	Accelerated Development Plan
ADSA	Academic Department Students Associations
AfDB	African Development Bank
AFM	American Funding Model
AFUF	Academic Facility User Fees
AHODs	Academic Heads of Department
APs	Accounting Professionals
ARRA	American Recovery and Reinvestment Act
AU	African Union
BIS	Department for Business, Innovation & Skills
BOT	Build, Operate and Transfer
CDHR	Centre for Democracy and Human Rights
DHET	Department of Higher Education and Training
EC	Education Commission
EUA	European University Association
FCUBE	Free Compulsory Universal Basic Education Program
FUSSAG	Federation of Senior Staff Association of Ghana
GAUA	Ghana Association of University Administrators
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GETFund	Ghana Education Trust Fund
GIJ	Ghana Institute of Journalism
HADs	Heads of Academic Departments
HESA	Higher Education in South Africa
IBR	Income-Based Repayment
IGR	Internally Generated Revenue
IMF	International Monetary Fund
IPS	Institute of Professional Studies

IQ	Intelligence Quotient
IT	Information Technology
JHS	Junior High School
KEI	Knowledge Economy Index
KIST	Kigali Institute of Science and Technology
KNUST	Kwame Nkrumah University of Science and Technology
LI	Legislative Instrument
MA	Master of Arts
MCQs	Multiple Choice Questions
MDGs	Millennium Development Goals
MFEP	Ministry of Finance and Economic Planning
MMDAs	Metropolitan/ Municipal and District Assemblies
MoE	Ministry of Education
MoF	Ministry of Finance
MOU	Memorandum of Understanding
NAB	National Accreditation Board
NABTEX	National Board for Professional and Technician Examinations
NCHER	National Council for Higher Education and Research
NCTE	National Council for Tertiary Education
NERP	New Educational Reform Program
NIB	National Inspectorate Board
NSCE	New Structure and Content of Education
NSFAS	National Student Financial Aid Scheme
NUGS	National Union of Ghana Student
NUR	National University of Rwanda
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of the Petroleum Exporting Countries
ORID	Office of Research, Innovation and Development
PNDC	Provisional National Defense Council
PRSPs	Poverty Reduction Strategy Programs
RCB	Responsibility Center Budgeting

SAP	Structural Adjustment Programs
SAPRI	Structural Adjustment Participatory Review Initiative
SASCO	South African Student Congress
SERAP	Socio-Economic Rights and Accountability Project
SHS	Senior High School
SLTF	Students Loan Trust Fund
SPSS	Statistical Package for the Social Sciences
SRC	Students Representative Council
SSA	Sub Saharan Africa
STATSSA	Statistics South Africa
STF	Student Trust Fund
TEWU	Tertiary Education Workers Union
TFHE	Task Force on Higher Education and Society
ТТО	Technology Transfer Offices
UCAD	Universite Cheikh Anta Diop
UCC	University of Cape Coast
UDS	University for Development Studies
UEW	University of Education
UG	University of Ghana
UIS	UNESCO Institute of Statistics
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
URC	Universities Rationalisation Committee
UTAG	Universities Teachers Association of Ghana
VAT	Value-Added Tax
VCG	Vice Chancellor, Ghana
WEF	World Economic Forum

CHAPTER ONE INTRODUCTION

1.1 Background

The focus of this study is the financial challenges and alternative funding models resulting from declining state subvention to public universities in recent years in Ghana. In 2013, public universities in Ghana submitted to government for consideration, a budgetary request of Gh¢1,852,440,128.00 but only Gh¢940,970,850.00 was approved, leaving a funding gap of 49.2 percent (Ministry of Finance 2014:87; Yankah 2015:1-2). Similarly, an amount of Gh¢937,000,000.00 was approved for public universities in 2014, out of a total budgetary request of Gh¢2,167,253,373.00, creating a funding gap of 56.8 percent (ibid). The cuts have adversely affected the access to and the delivery of higher education and quality of higher education which should be investigated. The vital function of university education in ensuring sustainable socio-economic development in the globalized knowledge economies cannot be overemphasized. University education institutions are known to play a key role in the highquality production of skills and knowledge innovation in the current knowledge economy, resulting from their core mandate of production, application and dissemination of knowledge (Bailey 2011: 3). MacGregor (2015:1) has cited Professor Phillip Clay¹ in the World University News asserting that "although African economic growth is driven by natural resource exploitation, the continent's talent could be far more valuable than gold, diamonds and oil. If developed and deployed it will be more valuable than all the minerals in the ground."

In his observation, Toffer (1990:9) has noted that "the most important economic development of our lifetime has been the rise of a new system for creating wealth, based no longer on muscle but on mind", with the knowledge economy being hailed as the way forward for economic growth and development worldwide. According to the Organisation for Economic Co-operation and Development (OECD), a country can boast of being a knowledge economy if production, diffusion and application of technology and information are heavily explored for economic activities and sustainable growth (OECD 1999:7). Explaining the link between the knowledge-based economy and education, Riddle (1996:1363) has opined that the knowledge-based

¹ A former Chancellor of Massachusetts Institute of Technology (MIT) and a Board Member of the Mastercard Foundations.

economy changes trade patterns worldwide which may positively or negatively affect the productive possibilities of any economy. Education should therefore be tailored in a way to train the workforce to suit the prevailing trends to be relevant and beneficial to the economy. Countries which do not cope with the new trends will be left behind in the global marketplace. Awortwi² (2008: 6) has established a strong positive correlation between investment in higher education and socio-economic development and states that a country's global competitiveness, technological advancement, industrial growth and economic development is overwhelmingly influenced by the level of its higher educational attainment. A study in Taiwan found that a one per cent rise in higher education stock led to a 0.35 percent rise in industrial output, and that a one per cent increase in the number of graduates from engineering or natural sciences led to a 0.15 percent increase in agricultural output (Lin, 2004). The same study showed a positive correlation between higher education and entrepreneurship. Individuals with higher education levels were more likely to engage in entrepreneural activity, and more educated entrepreneurs created larger numbers of jobs than less-educated entrepreneurs.

The relevance of university education to socio-economic development has been strengthened by the World Economic Forum (WEF 2010) and United Nations Development Program (UNDP 2009) whose reports indicate that countries such as Finland, South Korea and United States, with high tertiary participation rates, have innovation-driven economies and rank very high in the Human Development Index and Gross Domestic Product (GDP) per capita. An important feature of higher education in these countries especially Finland, is the high enrollment rate in tertiary education; and the extensive state funding of education (Pillay 2010:4).

1.2 Public Funding and Higher Education Delivery in Sub-Saharan Africa

Funding of higher education institutions in Africa has generated intense academic discourse among researchers, academics, students and well-meaning individuals to find permanent, effective and efficient funding options. Commenting on the current funding challenges in Africa

² A Ghanaian and a senior lecturer in Development Management at the Institute of Social Studies (ISS), The Hague, Netherlands.

in general, Bozzoli³ (2015:1) has emphatically stated that the South African government, since 1994, has made universities unsustainable as institutions of excellence and stability. Through the imposition of harsh, technocratic and underfunded financial regimes, declining academic quality, increasing dissatisfaction amongst staff and students have been the order of the day. Apparently, building a world-class university is very expensive as the range of subjects and degree types offered are large with each degree syllabus requiring multiple subjects to be taught using expensive state-of-the-art equipment and facilities and always require access to the world's knowledge (ibid). This further requires highly qualified staff, capable of reading and writing, teaching and frequently updating their own syllabi as well as undertaking research in accordance with international standards (op cit). Effects of inadequate funding of higher education on staff and student experiences cannot be overemphasized. Public universities worldwide are currently financed from three main sources of revenue namely, state subsidies, student fees, and fundraising which is tagged as "third stream income" (ibid). Public universities thrive on state funding with student fees providing a supplement to support the core costs of staff at competitive salaries, core funding for learning resources, funds to enable the university to pursue research and adequate support for students who cannot pay fees. The "third stream income" is raised from donors and donor partners and has a multiplicity of purposes, mostly program/project targeted, and is very expensive to manage; sometimes the overhead costs exceed the amount raised (op. cit).

According to Sagenmuller (2016), universities plan for several projects for quality delivery and improvement in their core mandate. According to the Autonomous University of Hidalgo State, Mexico (cited in Sagenmuller 2016): "A project is a set of activities to undertake in a given timing, with a combination of human, physical and financial resources, with defined costs to produce a change in an institution, by completing certain established goals." A project is planned for a specific goal(s) and requires a budget line to achieve the goal in a specified period of time. Non-release of the budget line is synonymous with pushing for the failure of the project with dire consequences in higher education institutions where schemes of academic activities are time-bound. Higher education institutions adopt managerial and administrative models in their

³ Bilinda Buzzoli is a Member of Parliament for the Democratic Alliance (DA) Party in South Africa and a Shadow Minister of Higher Education and Training.

competitive environment aimed at ensuring increasing efficiency and effectiveness acceptable to its stakeholders (Bryde and Leighton 2009). Efforts are therefore made to eliminate or minimze projects failure due to delayed release of budget lines, with IGR being the stop-gap.

The major challenge has been the extremely low supply in absolute terms, of government subsidy which should be the anchor of all the funding sources. Currently, government subsidy to the public universities in Africa constitutes only 0.6 percent of Gross Domestic Product (GDP), far less than 2.3 percent in Saudi Arabia, 1.8 percent in Russia, 1.4 percent in Argentina, and 1.3 percent in India (ibid). Furthermore, higher education expenditure in South Africa is pegged at 12 percent of expenditure on education, far less than the 20 percent in the rest of Africa and 23.4 percent for OECD countries. Ironically, the South African government has promoted the rapid rise in student enrollment, more than doubling student numbers within twenty years without supplying the concomitant funding (ibid). Most f the students enrolled are from poor families and unable to pay for their higher education studies, thus putting pressure on the National Student Financial Aid Scheme (NSFAS) which is also underfunded. These funding crises point to a vicious cycle of increased class sizes, stagnation of full-time faculty posts, increasing tuition fees, struggles within the NSFAS, increased student indebtedness, the poor students being most affected (ibid). The consequences have been frequent and often violent student clashes with authorities and the wanton destruction of property; a call for a higher education funding revolution is therefore imperative (Bozzoli 2015:5).

In a similar vein, van der Bank and Nkadimeng (2014:353) have analyzed how higher education could be made accessible to both the rich and poor to bridge inequality and poverty in post-apartheid South Africa. While black South Africans constitute about 80 percent of the total population, its participation rate in higher education is 12 percent, in contrast with the white population which enjoys a 60 percent higher education participation rate yet constitutes only nine (9) percent of the total population (Wangenge-Ouma 2012:3). The South African government since apartheid, has tried to expand access to higher education especially for the previously disadvantaged population by designing for the implementation of the National Student Financial Aid Scheme (NSFAS), which was instituted under the NSFAS Act 56 of 1999 to provide financial assistance to eligible students (van der Bank and Nkadimeng 2014:353). Apparently,

huge sums of monies have been injected by the government to finance the NSFAS, funding increasing from R441m in 1991 to R6b in 2011 and to R7.5 in 2012 (NSFAS 2012). This remarkable improvement in the NAFAS notwithstanding, the South African Student Congress (SASCO) and other student organizations continually, over the years, are advocating for free higher education, up to the undergraduate level, for potential students from poor homes (van der Bank and Nkadimeng 2014:353).

Evidently, higher education fees in South Africa are very high and pose a big challenge to most potential poor students who wish to pursue tertiary education after the matriculation level which is the school exit exam (ibid), especially considering the national poverty levels recorded at 56.8 percent in 2009 (Statistics South Africa (STATSSA) 2011). Poverty therefore deprives potential students of access to higher education, while most graduates and higher education drop-outs are saddled with a massive debt burden (van der Bank and Nkadimeng 2014: 353). According to the 'Green Paper for Post- School Education and Training' "there are inadequate financial resources to allow most school leavers including Matriculants, to successfully enter post school provision" (DHET, 2012:9). Commenting on the funding challenges, De Villiers (2012:56-57) has explained that financial constraints in higher education institutions often compel them to resort to upward adjustment (in real terms) of student fees. The repercussions of such upward adjustment of fees has been the denial of access to higher education for prospective students from poor family backgrounds, as such high fees are unaffordable for the poor (De Villiers, 2012: 57). Apparently, most students in South African universities are charged upfront fees above R20 000 whereas the average annual expenditure for a poor South African household is projected at R23 266 per annum (STATSSA, 2012:38). It can be argued that the higher education cost differences coupled with poverty levels slow down efforts geared at social transformation and poverty alleviation (ibid.). De Villiers (2012:57) intimates that "while universities were expected to become more inclusive in terms of attracting more diverse student profile, these inevitable cost increases has become a prohibitive factor for poor students to enter the system".

Higher Education in South Africa (HESA) recorded student debt to the tune of R2.8b in 2010 and this makes higher education in South Africa a very expensive commodity and unaffordable for the already impoverished citizens (HESA 2010). It has been established that "*Having tertiary*

education-particularly a degree increases one's chances of getting a job" (STATSSA 2011). Available data from 2010 indicates that the unemployment rate in South Africa among graduates was 5.2 percent and that of persons with other tertiary qualifications (diplomas or certificates) was 12.6 percent. In contrast, the rate was 30.3 percent among those without a matriculation pass (STATSSA 2011). There is therefore strong evidence to suggest that free access to higher education is a desirable measure to address the socio-economic legacy bequeathed by apartheid in South Africa as well as reduce poverty in the region (HESA 2010; STATSSA 2011; DHET 2012).

1.3 A Brief Overview of University Education in Ghana

University education is part of the suite of tertiary education opportunities in Ghana that offer certificates, diplomas, undergraduate and postgraduate programmes up to terminal (PhD) degrees, as well as undertaking cutting-edge research vital for societal growth and development. Other tertiary education opportunities reside in polytechnics (now technical universities), colleges of education, nursing colleges and professional institutions (Bingab, Forson, Mmbali and Baah-Ennumh 2016: 147). Government's desire to exploit its resources to improve the socio-economic welfare of its citizens has realized the potential of education, especially university education as a conduit to:

- Acquire and apply knowledge and skills for solving societal problems with the aim of achieving growth in all aspects of human welfare and ensure social equity for national development; and
- Enhance productivity and create employment opportunities especially for the increasing youth population (Bingab 2016: 151).

The commencement of university education in Ghana (originally known as the Gold Coast), was in 1948 with the establishment of the University College of Gold Coast, under the mentorship of the University of London, when Ghana was under British colonial rule (Bingab 2016:153). Due to the unwillingness of the colonial powers to have the University College established in the Gold Coast, the originators of the idea, including Dr. Joseph Boakye Dankwa and Kwabena Sakyi, a prominent lawyer in Ghana, proposed that funding for the institution would be borne by the colony (ibid.). The implication is that the issue of self-financing university education dates

back to the colonial regime in 1948, although there are no empirical facts to substantiate that funding was solely borne by the colony, and if it was, how the funding was mobilized, is not clear. Though the funding source(s) of the University College of Gold Coast was not clarified, what is evident is the fact that the first ten batches of students enrolled were provided with free luxury accommodation, free meals and allowances (ibid.). As one member of the first batch of students enrolled from 1956 to 1959 indicated:

"I went to university college of Ghana, now Legon in 1956. We were actually the first people to go into Commonwealth hall. Commonwealth hall was built for 300 students each one occupying one cubicle bigger than this office, but at that time there were only 53 students in the hall. At dinning we were served on silver ware by well-dressed stewards, we were fed 3 times daily, in addition to snacks at 10am and tea at 4pm. At that time, we were getting an allowance of 39 pounds a semester" (ibid.:153).

Evidently, student enrollment was low at the University College in the early stages. It is worth enquiring about plans and strategies of the political leaders designed to sustain future funding of the universities. This enquiry is relevant considering how university education in Ghana has migrated from the luxurious conditions students originally enjoyed to the current unacceptable infrastructure gap in public universities (ibid.). A number of chairpersons of public university councils in Ghana have alluded to the fact that for most universities there is a huge infrastructure gap between what is provided for the student populations and what is available in terms of academic and non-academic facilities. Vice chancellors of public universities have further complained about the challenges they encounter in employing and retaining qualified academic staff which poses a big challenge for quality university education and governance (op cit.). Commenting on the standard of education in Ghana after 1966 when the first president Dr Nkrumah was overthrown, Mfum-Mensah (1998 in Eyiah 2004:3) has espoused the weakness in Ghana's education in general and described it as "decayed which required organic *rejuvenation*". The rejuvenation process would require that education is given top priority by government and that there is more investment in resources from internal and external sources to recapture the high pre-independence standards of education (Eyiah 2004:4). It is against this backdrop of the challenges public universities encounter in the delivery of their mandate, that
this research study is being undertaken to critically examine how internal resources could be mobilized to complement declining state subvention for quality higher education delivery in Ghana.

1.4 Statement of the Problem

In Ghana, the management, control and funding of tertiary institutions had remained the responsibility of the state since colonial times. University students paid no tuition and government provided for accommodation, board, and allowances for books and living expenses (Sawyerr 2001:1-12). According to Leach et al. (2008:21) political turbulence and socioeconomic pressures with its competing demands on scarce resources has made successive governments in Ghana reduce their funding of tertiary education since 1980. The Structural Adjustment Participatory Review Initiative (SAPRI 2001) report indicates that the percentage of Gross Domestic Product (GDP) allocated to education in Ghana declined from 6.4 percent in 1976 to 1.0 percent in 1983 and to 1.7 in 1985. Further, the Ghana government met only 50 percent of the approved budget for universities in 1998 (Effah 2003:338-349). The worsening financial position of government necessitated the adoption of the "Akosombo Accord" by the major tertiary education stakeholders in 1987, a cost-sharing arrangement where 70 percent of funding was allocated to government while the remaining 30 percent was to be accessed from three sources: internally generated revenue (IGR), private donations and student fees payments (Manuh et al. 2007: 96). The Ghana Education Trust Fund (GETFund) was also introduced in 2000 to complement the funding of education in Ghana. This notwithstanding, tertiary education in Ghana is confronted with a funding gap as follows: 2011 - 39.7%; 2012 - 79%; 2013 - 49.2%; 2014 - 46.6%; and 2015 - 41.0% (Duwiejua 2015:13). Manuh et al. (2007: 97) observed that the challenges in funding relate to the inadequacy and untimeliness of funding, the sharing of responsibilities for funding and the efficient use and management of resources.

The cuts in state funding have adverse effect on research which is allocated a paltry 0.3 percent of Gross Domestic Product (GDP). This falls below the benchmark of at least one (1) percent of

GDP prescribed by the African Union (Yankah⁴ 2015:1-2). The resultant effect has been gaps in state policy formulation and national planning and development to address neglected and poverty related issues in Ghana (ibid). Thus, public universities are unable to provide reliable researchbased data to support and enhance state development planning and poverty reduction programs. Further, new knowledge and innovation required from research to inject new life into teaching and learning is also lacking (ibid). In 2014, about 98.53 percent of GH¢937m given to public tertiary education institutions was spent on salaries and wages of staff, leaving less than two (2) percent for infrastructure and other expenses needed to train students (ibid). Consequently, public universities in Ghana have intensified and diversified their income generating activities to include fee-paying summer academic programs, commercial production of detergents, fuel stations, bottled-water production and others (UCC 2015:43).

Several research studies have been conducted on higher education funding in general in Africa but very few studies have focused on internally generated revenue in public universities. One of these such studies was undertaken by Mayanja in 2008 titled: "How to improve internally generated revenue without provoking students or staff strikes at the Makerere University, Uganda". It was noticed that the University Management at Makerere University introduced feepaying students to raise IGR and motivated the academic staff to embrace the concept by leaving most of the funds generated by the faculties to be managed at their own discretion. Onuaha (2013) also carried out a study on IGR titled: "Financing higher education in Nigeria: The role of internally generated revenues and how university management can maximize the sources". The paper concludes that IGR plays a significant role in providing funding for all categories of universities in Nigeria. Therefore, in order to ensure sustainable optimal contribution from IGR sources, university managements must adopt professional and very efficient ways of designing their IGR initiatives. The paper concluded that universities should restructure their strategies to accommodate IGR Co-ordination Offices to ensure that innovative revenue generating initiatives are not stifled by long bureaucratic bottlenecks.

⁴ Former Pro-Vice Chancellor of University of Ghana, Legon and currently the Minister of State for Tertiary Education since 2017.

In assessing the recent higher education funding in Rwanda with a focus on the tertiary education student loans department, Nuwagaba (2013:80-81) noted that internally generated revenue is a good funding option for tertiary education institutions in Rwanda. The researcher noted that the Kigali Institute of Science and Technology (KIST) could mobilize 35 percent of its income internally in 2002, which increased beyond 50 percent in 2008 (Butare 2004 cited in Nuwagaba 2013:80). Thus, KIST achieved this level of revenue by devising a strategy to raise income internally through internet services sales and rendering general IT solution services to the public (ibid). The National University of Rwanda (NUR) also embarked on radio station services, accommodation for rent, consultancy services and other operations which provide supplementary income for it (NUR 2012 cited in Nuwagaba 2013:81). The researcher concludes that higher education institutions in Rwanda could emulate the good example of KIST having realized that public funding was inadequate to support its operations. The government could even withdraw its grant on recurrent expenditure and focus its funding on capital expenditure in higher education institutions in Rwanda while the institutions fund their recurrent budget with their internally generated incomes (ibid:80).

In another development, Famurewa (2014) has also delved into IGR in higher education in a study titled: "Inadequate funding as the bane of tertiary education in Nigeria". The paper asserts that tertiary institutions should mobilize funds to supplement government financial support and ensure proper monitoring and judicious use of funds and minimize the corrupt practice of some of officials in the African continent, most especially Nigeria. Through efficient use of resources in tertiary education institutions, especially universities, adequate resources will be available to undertake relevant and quality research, improve the quality of graduates trained and contribute sustainably to the national development agenda. The paper analyzed the higher education funding sources, associated challenges and prospects and indicated the need to focus on Internally Generated Revenue mobilization to fund research work and other development projects. This would complement and enhance government support to create an enabling environment for consistent and better quality of education in the country.

Public universities in Ghana have improved their internally generated revenue efforts, IGR rising in relation to total revenue from 27 percent in 2003 to 35 percent in 2007 and 43.5 percent in

2009 (Bailey et al. 2011:17 and Ghana Education Service 2010:78). In Ghana, internally generated revenue is about 53% of government subsidy (NCTE, 2007). While this has reduced institutional dependency on the state, a substantial part of the internally generated revenue is misapplied by university administrators on frivolous expenditure, instead of using it to improve teaching and research infrastructure (Awortwi 2008:14). Research work on internally generated revenue in Ghana has mostly focused on the District Assemblies and how to improve own generated income in the Assemblies. For instance, Abdul-Basit Issah⁵, a Ghanaian Master of Arts (MA) student at the Institute of Social Studies, The Hague, Netherlands, did his Master of Arts dissertation focusing on IGR analysis in the Tamale Metropolis in 2011. Apparently, Atuahene⁶ and Oppong⁷ have researched a policy analysis of the financing of tertiary education institutions in Ghana; both studies were targeted at one state funding source, the Ghana Education Trust Fund (GETFund).

Several studies have been undertaken on higher education funding in Ghana, but the emphases have not been on IGR. Twene (2014), a student at the Faculty of Education, Universitetet l Oslo, wrote a dissertation titled: "Sources of funding for higher education in Ghana". The main objective of the study was to contribute towards a better understanding of the sources of funding for contemporary Ghanaian higher education. In a similar vein, Awidi (2014) has researched higher education funding in the study: "Repositioning budget-constrained universities as third-generation universities (3GU)". The 3GU model however promotes private funding of universities worldwide which is at variance with the objectives of this dissertation. This study will focus on the implementation of IGR funding strategies to mobilize extra revenue in the context of the declined state funding in public universities in Ghana.

⁵ Dissertation was titled: "When nothing really works; the dilemma of mobilizing local revenues in Ghana: A comparative analysis of local taxes in the Tamale Metropolis".

⁶ Francis Atuahene's PhD dissertation was titled: "A policy analysis of the financing of tertiary education institutions in Ghana, An assessment of the objectives and the impact of the Ghana Education Trust Fund (GETFund)" in 2006 at the University of Ohio, Japan.

⁷ Abigail Oppong pursued a case study on the performance of GETFund in 2013 as a MPhil Dissertation at the University of Ghana, Legon.

1.5 Objectives of the Study

Ghana's continued rise from a lower-middle to a middle-income country depends on the ability of tertiary institutions in building a well-trained, innovative and skilled labor force to propel the country forward (Agyeman 2013:1). This requires extensive funding, however, the massification of higher education in recent years coupled with a reduction in state funding has called for pragmatic efforts by public universities to work toward reducing their reliance on state funding (Deem, Hillyard, and Reed 2007:3). It is in respect of this that public universities have intensified their IGR mobilization efforts, with their associated effects on how public universities are managed. The objectives of this study are to:

- i. Assess the current experiences of staff and students with regards to state funding of public universities.
- ii. Identify the funding challenges and opportunities in public universities.
- iii. Explore strategies employed to generate revenue in public universities.
- iv. Examine how the available funds are spent in public universities.
- v. Investigate how IGR strategies affect the mandate delivery of public universities in Ghana.

1.6 Research Questions

This study examines funding challenges of public universities in Ghana and explores the role of internally generated revenue (IGR) in public universities to help manage the funding challenges. The proposed study will therefore attempt to answer the following questions:

- i. What are the current experiences of staff and students with regards to state funding of public universities in Ghana?
- ii. What are the funding challenges and opportunities in public universities in Ghana?
- iii. What funding strategies have been employed to generate revenue in public universities in Ghana?
- iv. How are the available Internally Generated Revenue (IGR) spent in public universities in Ghana?
- v. How do the IGR strategies affect delivery of the core mandate of public universities in Ghana?

1.7 Significance of the Study

This study analyzes the size and scope of Internally Generated Revenue in public universities in Ghana and how it could be managed and strengthened to complement other sources of public funding in public universities. The effects of Internally Generated Revenue collection methods/systems on access to and quality of higher education delivery are assessed to determine the most effective and efficient system that will ensure good quality, improved access to and higher education delivery for all Ghanaians. The experiences of staff and students on Internally Generated Revenue in public universities will be closely studied and analyzed in the context of declining public funding. Recommendations on how to galvanize total support from all staff and students for effective internal revenue generation are given. In addition, the study will hope to discover a number of issues concerning funding sources which have not been addressed before. The study monitors and explains the relationship between state subvention inflows and the internally generated revenue drive of public universities and provides a guide for policy makers to design the appropriate policy interventions to improve funds inflow in public universities.

The study further provides the policy framework to improve the efficiency of public university financial management. It will serve as a guide to public university institutions in ensuring effective engagement with other national development stakeholders to optimize internal revenue generation and its relevance for higher education delivery in Ghana. Further, stakeholders of higher education will be better educated about the relevance of internally generated revenue and thus will appreciate the need to support public universities to improve their management. The outcome of the report will be a useful guide to public university institutions in sub Saharan Africa and developing countries in general on the way forward for financing higher education. Again, the final product from the study will provide an additional source of information to the existing literature on higher education funding in Africa and developing economies in general. As suggested by Osborne & Gaebler (1992 cited in Atuahene 2006:14) one needs to measure results to tell success from failure and to reward success. It is envisaged that the study's outcome will contribute to knowledge on higher education funding and will prompt further research by scholars. Thus, the study will guide future researchers in higher education funding in terms of lines of argument for the study, methods used, as well as challenges encountered in the field and how they can be overcome (King 1995).

1.8 Scope and Limitations of the Study

The study did not cover all public universities in Ghana and is likely to skip the peculiar circumstances of each public university, especially the geographical locations as every public university in Ghana was established for a specific purpose. The study is limited to public university management – vice chancellors/pro-vice chancellors, registrars, directors of finance and internal audit, academic leaders in faculty/schools, leaders of university unions, and student leaders in academic departments. A few public officials from the Ministry of Education, Ministry of Finance and the National Council for Tertiary Education were contacted for interviews. Again, respondents of the study were mostly leadership of sections and units who are mostly males and likely to affect the gender sensitivity of the study. Further, issues on financial appropriation and management require considerable time and resource availability to study and understand before logical conclusions can be drawn. Thus, inadequate financial resources and time constraints for the researcher adversely affected the study. Accessing financial information in Ghana is quite problematic as people are reluctant to willingly release such information. Fortunately, most of the required financial data are public information that could be accessed in secondary sources.

1.9 Organization of the Study

Chapter One: The first chapter is the introductory section which gives a brief background of the decline in state subvention payment to public universities in Ghana, as well as the synopsis of public funding and higher education delivery in Sub-Saharan Africa is discussed. Funding and internally generated revenue mobilization issues of public universities in Ghana are discussed with specific studies from different African countries cited to elaborate on the current funding situation of public universities in Sub-Saharan Africa. The problem statement, objectives, research questions to be answered and the significance of the study, the scope and limitations of the study are elaborated on and concluded with the structure of the study.

Chapter Two: Chapter two reviews existing literature related to revenue generation both at international level and in Sub-Saharan African countries. The evolution of higher education in Ghana and higher education funding models worldwide are also discussed. Key concepts which

are relevant to internally generated revenue mobilization in public universities are discussed. These include: internally generated revenue generation and diversification of revenue sources, strategies for internally generated revenue in public universities, accountability, globalization and internationalization of higher education. The chapter ends with a discussion of funding and its ramifications for faculty scholarship in public universities.

Chapter Three: This chapter presents theories that explain the current funding situation and its associated challenges in public universities. Notable among these theories are: neo-liberal, human capital, new public management paradigm and resource dependence theories. This chapter further gives the background to the market orientation and higher education development. The chapter links the theoretical framework and internal revenue generation in public universities and the practical implications.

Chapter Four: This chapter reviews educational reforms from pre to post independence in Ghana at the basic and tertiary levels. It also examines higher education and socio-economic development in Africa and concludes with a review of the Ghana Education Trust Fund (GETFund).

Chapter Five: The focus of chapter five is on the research design and discusses the methods, data sources, sampling instruments and data analysis techniques used in the study. Brief background information on the research areas is given in this chapter.

Chapter Six: The chapter presents the experiences, challenges and opportunities of respondents in relation to state funding cuts in the universities. Data collected from the field and the findings in relation to staff and student experiences, challenges and opportunities are reported. This section is divided into themes in accordance with the research questions and objectives.

Chapter Seven: This chapter focuses on findings on the strategies adopted by the universities to mobilize IGR to supplement the state funding cuts, how the IGR is used and the effects of the IGR mobilization activities on the mandate delivery of the universities.

Chapter Eight: This chapter combines and discusses findings from chapters six and seven in the context of the literature review and the theories used for the study and are guided by the research questions.

Chapter Nine: This chapter gives a summary of the research findings and concludes with recommendations, implications for policy practice and suggestions for further research.

CHAPTER TWO REVIEW OF THE LITERATURE

2.1 Introduction

This chapter discusses the role of higher education in society which necessitates public intervention in terms of funding. It elaborates on the expanded and multi-purpose role of higher education and the general acceptance of its relevance in societal welfare. The linkage between higher education massification and funding challenges is discussed, in relation to funding models by different economic blocs across the globe. The rest of the chapter is devoted to a discussion of the relationship between higher education and socio-economic development in Africa vis-à-vis government's role in higher education funding and funding challenges and the consequential effects on higher education is elaborated. Specific issues discussed are the state of contemporary higher education in Africa which include: public funding and higher education delivery in sub-Saharan Africa; the current state of higher education in Africa vis-à-vis enrollment, access and financing; call for accountability and probity in public higher education institutions as justification to attract funding; faculty scholarship in public higher education institutions and funding challenges. The chapter further discusses higher education and alternative funding in Africa and internally generated revenue (IGR) and higher education institutions. The role of globalization in IGR, IGR diversification in higher education institutions; and strategies for IGR diversification are also discussed. The issues raised for review and discussion in this chapter provide background information to the research questions and objectives set out in this study.

2.2 The Role of Higher Education in Contemporary Society

Scholars such as Kerr and Castells (2001 206-212; 2009); Mamdani and Appiah (cited in Cloete and Maassen 2015: 1) in discussing the progressive and vital roles of contemporary higher education, have argued that higher education should not necessarily be single-purpose but multi-purpose to enable it to perform different functions. The functions of higher education go beyond teaching, research and community service to include issues of production which involves talent-searching, training and research; consumption and citizenship that induces general education, communal life, socialization, critical thinking and democratization (Kerr 1991 47-67). It is intimated that public universities have three main functions which are teaching, research, and

community engagement. Teaching and community engagement are meant to train human capital and ensure social cohesion while the research component targets knowledge creation, development, innovation and dissemination (Benneh 2003). Elaborating further, Kerr (1991: 65) has stated that:

"The reality is a pluralistic university system in a pluralistic society serving many functions including constant evaluation of society. The single-purpose campus is as unlikely as the singlepurpose wife or husband; the nature of both is to serve more than one function. Nor can there be a single model for the multi-purpose campus, since some functions combine better than others and there are a number of functions in totality to be performed by higher education."

Arguably, the roles of contemporary and progressive higher education can be summarized as the following. The first is the philosophical teachings which inculcate values and acceptable social behaviors mostly taught through church-based and other institutions (Cross et al. 1999). The second role involves selection and training of the dominant elite group via a socialization process to ensure the formation of networks for social cohesion and a code of conduct to regulate the elite and differentiate them from the rest of society (Castells 2001: 207). However, as the demand for higher education has increased, many higher education institutions have abandoned the elite selection process to expand access and increase the global average participation rate from 15 to 40 percent, a situation described by Trow (2007) as "the shift from elite participation via mass to universal higher education" or higher education massification (Scott 1995). Massification has become an integral part of modernity with socio-economic, cultural, and science and technological change implications (Cloete and Maassen 2015: 3).

Thus, the massified systems have moved beyond the selection of the elite group, to higher education institutions that are enrolling academic talents irrespective of their class or background (ibid). Unfortunately, the massified system is tilted in favor of children whose parents have higher income levels and thus linking parental income to higher education access (Shaplin 2014 cited in Cloete and Maassen 2015:3). Training human resources has been the third function of higher education since it commenced grooming church leaders (Castells 2001) and has extended to the training of various professionals and specialists with the ability to adopt and adapt themselves to varying occupations and technologies for industrialization and development (ibid).

The last and very recent role has been "*the research university model*" with some institutions branded as "research universities" where the primary focus is the production of scientific knowledge (ibid). As higher education institutions became development-inclined many research universities have emerged, more so as the developed economies mostly assess their achievements via research, technology, and partnerships between higher education and industry (Cloete and Maassen 2015: 5).

As explained by Kerr (1991: 11) higher education institutions engage in more than one of these roles with many involved in all of the four functions with their associated challenges in order to cope with societal and prevailing realities. Further, new developments in the modern state has compelled higher education institutions to become a "productive force and be linked to the informational economy through socio-cultural changes that society was undergoing" (Gornitzka and Maassen 2007), the purpose of this was to develop solid and dynamic institutions capable of performing different and contradictory functions to ensure development (Cloete and Maassen 2015: 5). As elucidated by Castells (2001: 14): "The ability to manage such contradictions while emphasizing the universities' role in generating knowledge and training labour in the context of the new requirements of the development process will to a large extent determine the capacity of countries and regions to become part of the new world economy". The multiplicity of roles assigned to higher education institutions coupled with the need for expanded access and massification of enrollment call for adequate resources to fund such programs if the desired impact is to be realized.

2.3 Higher Education and Funding: General Perspectives

Higher education has become very important in the 21st century for the sake of enriching lives and enhancing the social status of individuals, as well as engineering economic prosperity and advancement of democracy and social justice for nations (Johnstone 2006:13). Nonetheless, it is beset with resource challenges which emanate from cuts in state funding in the sector, the hardest hit being in Africa (Kigotho 2015:1). The reduction in government funding of higher education is mostly informed by declining public revenue attributable to difficulties with mobilizing tax revenue particularly in democratic and decentralized economies, as well as competing public needs for the same limited revenue, some of which are highly politically motivated and proiritized (Johnstone 2003: 354). Again, the quest to move away from the 'dominant elite group' to massified admission which is compounded by demographic increases in the collegeage groups and adults who had earlier been by-passed by the previous admission process and want to take advantage of the current system, has expanded demand for higher education (ibid). It is noteworthy that developed countries that have mass and even near-universal higher education enrollment rates also encounter persistent pressure in the demand for higher education since education is unending and many students are interested in continuous education for his or her lifetime (Johnstone 2003: 353). For example, the persistent increase in demand for higher education in the United Kingdom (UK), increased the ratio of 18-23-year olds enrolled in higher education from 14 percent in 1980 to 44.9 percent in 2012 (Shattock 2010:22-30, BIS 2014:9). The expanded demand coupled with increasing cost per training of students puts pressure on declining government revenue and hence austerity measures are implemented by government to meet other equally important and more prioritized demands of society other than higher education (ibid). Further, it is common knowledge that the private benefits for beneficiaries/parents of higher education far exceeds the social benefits and therefore it is right for such beneficiaries to contribute to the cost of their training to minimize financial pressure on the state (ibid: 361). More so, as some parents are willing to contribute to the cost of training their wards with the firm belief of reaping good returns in the future, this motivates governments to reduce public spending on higher education (op cit.)

The funding austerity measures have manifested in a reduction in efficiency and productivity in higher education institutions resulting from (Johnstone 2006: 13; Sawyerr 2002):

- Reduction in quality of output in teaching, scholarship, and community service;
- Ever declining working and living conditions resulting in increasingly demoralized faculty, staff and students with concomitant agitation and labor unrest which disrupts the academic calendar and, in some cases, loss of life and property;
- Reduced capacity for admission which often leads to rationing of admission quotas and denial of opportunities for several qualified students, especially, prospective students from poor families;
- Widening inequalities instead of creation of an egalitarian society etc.

Managers of higher education institutions worldwide are therefore compelled to design new funding regimes to cope with the reduction in public funding, which shows no indication of changing for the better. The new strategies for additional funds to supplement government revenue are derived from cost sharing, engaging in entrepreneurial ventures such as commercializing faculty services, hiring of institutional facilities, intensive drive for research and other grants, entering into contract work, fund raising from alumni, corporations, friends, buying and selling of tangibles and intangibles, and many other incomes generating activities (ibid: 354).

2.3.1 Higher Education and Cost-Sharing

Cost sharing is an act of shifting part of the cost of higher education to the beneficiary students and their families which disengages the state and taxpayers⁸ from absorbing the bulk of higher education costs and thus frees resources for use in other sectors of the economy (Johnstone 2006:1). The cost sharing prescribes the introduction of payment of tuition fees by students or the rate of fees being increased gradually where the fees are already being charged, seizure or reduction of student grants, and removal of student loan subsidies through charging of commercial interest rates on student loans (ibid). Tuition fees payment by students substantially complements the ever declining public funds for higher education institutions without necessarily increasing the cost of higher education or diverting faculty from its core mandate in the search for additional funds to keep it in business. For instance, tuition fees payment reduces the tendency of higher education to venture into commercial activities outside its normal teaching, research and outreach to raise additional income (ibid).

It has however been argued that the shifting of the higher education cost burden to students and their families might deny potential students from poor families or disadvantaged groups in society from accessing higher education (ibid:7). To verify the validity or otherwise of this assertion, Wilkins, Sham and Huisman (2013:1-14) pursued empirical studies on the decision-making and changing behavioral dynamics of potential higher education students in England to establish the impact of increasing tuition fees on students in England. This study was motivated

⁸ "Taxpayer" includes the general citizen/consumer losing purchasing power to the government due to the higher prices introduced via hidden business taxes or by inflation brought about by public deficit financing.

by the introduction of higher education tuition fees in the United Kingdom in 1998 which was fixed at £1000 per annum to sustain enrollment expansion, while the student subsistence allowance was cancelled and replaced with student loans in 1999 (Wilkins et al. 2013:2). The tuition fees increased to £3000 in 2006 and £3375 in 2011-2012 (ibid) and was finally fixed at £9000 per annum in England from 2012 (BIS 2011:10). The research focus was based on the hypothesis that: "the increase of tuition fees from £3,375 to £9,000 in 2012 will have a greater impact on demand, especially with the recent downturn in the UK and global economies and rising graduate unemployment" (Wilkins et al. 2013:2). The major finding of the study was that individual student's higher education aspirations were greatly dependent upon financial considerations. The tuition fee hikes in England in 2012 will therefore affect students' study choices and some were considering alternative choices with a quarter of respondents considering postponing higher education while one fifth were considering cheaper higher education options (op cit:7-11). In summary, the study concluded that English students' higher education choices were greatly influenced by financial considerations.

The European Commission on Education and Training (2014) has delved into the effects of cost sharing on potential students' pursuit of higher education in an evidence-based case study. In this study of eight European countries the research focus was on cost sharing from the perspectives of students and institutions. By assessing student net cost which includes the other expenditures for the student beyond tuition fees and any study aid scheme awarded, it was noted that a substantial amount of cost is borne by the student in terms of educational and living expenses, even in countries where tuition fees are not charged, and concluded that any increase in private cost often affects student behavior (ibid: 8). At the institutional level cost sharing affects the ratio of public and private funding sources which in turn influence the behavior of higher education institutions (op cit.). The study enumerated the effects of cost sharing at institutional level as follows (ibid: 9-11):

• Tuition fees payment always increases the quantum of resources available for higher education institutions and makes them better-off. It was noted that except in periods of economic recession public revenue for institutions does not decline in absolute terms as private resources increase and this makes the institutions better off. However, the

increase in resources does not benefit the students since no investment is made in areas that could improve students' learning experiences

- Rapid increases in student enrollment increases higher education expenditure and governments are often unable to provide enough funds to balance the cost of the additional enrollment;
- Often the increases in resources create increased student-per-staff ratios as new funds are invested to expand programs to increase access at the expense of quality. In some cases, the increased resources are expended on non-academic activities, often on administrative and /or management tasks, as well as for promotion of research activities which signify diversion of resources meant to expand students' experiences.

At the level of students, cost sharing effects are as follows (European Commission on Education and Training 2014: 68-69):

- Cost sharing often acts as an entry barrier to some students who may either have lower rate of returns to pursue higher education or they are funds-constrained and cannot meet the high financial demands of higher education
- There is the tendency for enrollment composition to increase for students from middle and high-income families at the expense of prospective students from poor families. The net effect is entrenchment of inequality and a less egalitarian society
- For participating students from poor families, the increasing cost may adversely affect their completion rate
- Cost sharing policies do not adversely affect higher education enrollment as a whole; there is an increasing demand for higher education globally, since prospective students from rich families will always enroll and pay the appropriate fees to neutralize the enrollment effects of prospective applicants who will dropout due to financial constraints.

In his effort to delve further into cost sharing, in research titled "Cost Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility in Comparative Perspective", Johnstone (2006:4) sought to clarify and explain the rationale for cost sharing in higher education, the implications of cost shifting on students and parents as well as the effects of the

cost sharing on higher education access, especially on students from poor families. Further, efforts by the state to deal with and minimize the negative effects of the cost-sharing on poor families also needed to be clarified (ibid).

It is intimated that shifting part of the costs of burden of higher education to the beneficiaries and their families is motivated by inadequacy of public revenue due to declining economies worldwide coupled with increasing competing demands by other sectors of the economy (op cit.). According to Johnstone (2006:5) the realization that higher education is the engine that propels socio-economic growth and development as well as the enhancer of an individual's opportunities and prosperity has increased public and private interest in higher education in most countries. The relevance of higher education notwithstanding, the sector does not enjoy the same priority as other public-sector demands, such as elementary and secondary education, public health, housing and public infrastructure. With the demand pressure, high and increasing per student costs resulting from the use of labor instead of capital intensive modes of delivery, and decline in available public revenue, public higher education institutions have to supplement their inadequate government revenues with costs sharing (Johnstone 2006: 5).

Further, the rationale for introducing tuition fees and other forms of cost-sharing is necessitated by the principle of equity: the beneficiaries should contribute to the costs since higher education is actually paid for by all citizens (ibid.). Again, a greater percentage of beneficiaries of higher education are from middle and upper income families who could afford to pay part of the costs of instruction. For such groups whether tuition is charged for or not will make no difference to their enrollment and public subsidy required by potential students from low income families will be a "*transfer payment from the state to the middle and upper-class families*" (op cit.). Finally, there are potential students from poor family backgrounds likely to be deprived of higher education when tuition fees are charged. A means-tested financial aid package could be designed and financed with a portion of the tuition fees collected and given as grants or loan subsidies to ensure accessibility for these potential students from poor families (ibid). Johnstone (2006:8) further justified the cost sharing argument from the neo-liberal economic perspective and argues that the payment of fees will make students and families more discerning consumers and the universities more cost-conscious providers to ensure efficiency in higher education delivery.

Also, public universities will act responsibly to individuals and society in general if they are to access extra income through tuition, gifts, grants and other sources to supplement public grants.

2.3.2 Cost-Sharing and Student Debts

Critics of cost-sharing by the imposition of tuition fees at higher education institutions, such as Buchert and King (1995 cited in Johnstone 2006) have argued that the practice is a shift of public responsibility and an avoidable burden to students and families which is incorrect and unacceptable. Countries should perceive and appreciate higher education as a social good that should be free for those who have gone through the rigorous academic secondary system (ibid). They argue that higher education should be valued as a vital social good with society being the major beneficiary contrary to the notion that the private benefit of higher education to graduates and their families override the social benefits. Academic leaders have argued that any good higher education system should be substantially insulated from commercialization and market forces, contrary to the market responsiveness and efficiency debate; heeding to the demands of students and allowing politicians or the businessmen mentality in running academic institutions is a recipe for mediocrity (ibid: 9). Further, there is no empirical evidence, at least in the United States, to suggest that charging tuition fees in higher education institutions could improve academic responsiveness, educational quality and efficiency (op cit.).

The critics, however, accept that means-tested financial assistance and loans could improve access in higher education, in the face of increasing tuition costs and diminishing taxpayer subsidies, but argue that potential students from poor families may not understand that they could access public grants to settle the high tuition costs (ibid). The mention of tuition fees might therefore not encourage such potential students to aspire for higher education during the middle and secondary school years. According to Debrah (2008:44, 74), the quantum of loans given by the state to students in Ghana is inadequate to cover expenses in university education including the high interest rates involved. The implementation of the SLTF is however, bedeviled with challenges of poor loan recovery, ineffective bureaucracies and policy implementation lapses as well as a standard amount for all without recourse to the individual's special needs and these make the facility difficult to administer and unsustainable (Barr 2008). In the United Kingdom for instance, the state held a greater proportion of students' study-related debts and arranged

favorable income-based repayment conditions (cited by O'Malley in the April 28, 2016 issue of the University World News). In the United States of America student loan debt stood at US\$1.48 trillion as of January 2018 covering 44 million borrowers, which is US\$620 billion more than credit card debt in America and experiencing an 11.2 percent annual default rate (Student Loan Statistics 2018). The student debtors in America have constituted pressure groups: Occupy Colleges and Occupy Student Debt Movements, Rebuild the Dream, Education Trust, and Young Invisibles in 2012 to galvanize support from students in America for debt elimination (ibid.), and this creates avoidable social unrest should tertiary education be fully funded by the state. The actions of these pressure groups have resulted in the promulgation of "The Student Loan Forgiveness Act of 2012" to offer debt relief for students indebted to federal and private student loans (ibid.).

Further, it is a known fact that children of the working class or peasant backgrounds resist borrowing from the perspective of cultural aversion to debt (Barr 2008). In his assessment of tuition fees payment alongside means-tested financial aid for potential students from poor family backgrounds, Johnstone (1993a) has intimated that: *"while a policy of high tuition combined with reliable means-tested aid might be more efficient and acceptable, the public subsidies can be effectively targeted, the high tuition can be imposed by short-term political expediency, while the high aid requires a longer-term ideological commitment; the consequences being a de facto policy of "high tuition-low aid" or "high tuition-high loans only."*

Arguably, scarce tax payers' monies are accessed and used by political authorities based not on good and efficient cost-benefit analysis of all the competing demands but mostly on the basis of which projects could satisfy their political interests (Johnstone 2006:10). Excessive use of the market system to allocate resources only serves to "*perpetuate the existing unequal distribution of power, status, wealth and economic opportunities*" (ibid). Where there is the political will and leadership, substantial revenue could be raised through taxes to systematically and progressively phase out tuition and any form of cost-sharing to minimize the tendency of declining enrollment in higher education, especially, among potential students from poor homes (Buchert and King 1995; Otieno and Menene 2007). This could further eliminate or reduce the danger of managing ineffective and expensive financial aid and loan schemes and ensure value for money (ibid). It is

opined that tuition fee increases may not necessarily make available increased resources to improve the higher education system or additional need-based financial assistance resulting in improved and greater participation among potential students from poor families, nor a shift in public resources to other socially worthwhile programs (op cit.). If the state does not provide sufficient funding to higher education through additional tax funds and phase out tuition fees, the continuing austerity at some point will become sufficiently damaging; to the point of severe enrollment limitations and increasingly inadequate numbers, poor quality faculty, books, equipment, and physical plant (ibid).

In his assessment of the implications of cost sharing on higher education students, Sir Peter Lampl⁹ (cited by O'Malley in April 28, 2016 issue of the University World News), has explained that: "The massive increase in tuition fees in England from £3,000 to £9,000 per annum in 2006 and 2012 respectively. Again, with the abolition of maintenance grant has pushed the poorest English university graduates into debts of over £50,000 on graduation with interest rates on the debt compounding at up to 3 percent over inflation". The English students' debt levels were the highest in all English-speaking countries worldwide and are twice as high as the average students' debt portfolio in the United States, where the students pursue four-year academic programs compared with three years in England (ibid). The high cost of university education in England has become a major challenge for many eligible young people who are considering higher level apprenticeship options instead of university degrees. The study recommends that the Office for Budget Responsibility should assess whether the prevailing student loan system offers value for money to both the beneficiary student and the taxpayer, considering the recent reforms announced in the 2015 budget and spending review (op cit.). Again, the Parliamentary Select Committee for Business, Innovation, and Skills should monitor funding in higher education and assess its effect on the disadvantaged, particularly, mature, and part-time students whose enrollment have dropped considerably in recent years (ibid).

⁹ Chairman of the Sutton Trust and Education Endowment Foundation in England.

In assessing higher education delivery in Ireland, Haupman¹⁰ (2014:1) has noted that the country has a modest level of public investment in Irish higher education institutions with very low private investment vis-à-vis privately paid tuition fees compared to the Organization for Economic Cooperation and Development (OECD) sister nations. Other private sector investments from industry and philanthropy is also low. The author further observed that the country's economic performance has gone through recession and likely to slide into depression which calls for the need to trim government spending. This coupled with its increasing youth demographic profile and the need to improve completion rates at the secondary level as well as increase participation rates at the tertiary level, has weakened and made the existing higher education funding policies unsustainable. The recommendation for ensuring sustainable funding policies was for the government to maintain or stabilize its investment levels in higher education and encourage private sector investment, more so, as higher education has better employment prospects and significant financial returns for the beneficiaries (ibid:2). Thus, the need to change existing policies where continuously increasing demand for higher education is solely funded by the public sector was deemed relevant.

2.4 Higher Education Funding Models in Developed and Developing Economies

A major global challenge is how governments could reform higher education funding in response to higher education massification especially in developing economies, coupled with mounting pressures on national budgets from other equally important sectors of the economy clamoring for improved budget lines (Woodhall 2007: 6). Higher education funding worldwide has therefore witnessed drastic transformation, especially in the past two decades, as governments struggle to manage the increasing demand for higher education but with consistently declining public expenditure in the sector (ibid). Evidently, the size of the public grant which was allocated to the sector when higher education demand was very limited has proved to be unsustainable as higher education enrollment tends to be elitist with not more than 15 percent of the relevant population group being enrolled (Woodhall 2007: 6; Trow 1974). Various countries worldwide have adopted different funding systems ranging from tuition fees charges, to academic facilities user fees, student financial aid systems, student loans, and others, all of which have attracted public

¹⁰ The author is an American Public Policy Consultant with a specialization in higher education finances around the world.

debates and criticisms (Woodhall 2007: 6). The quest for public policy on higher education funding models appropriate to specific regions or countries has become imperative. The funding models have been informed by the following fundamental economic principles (ibid):

- Net returns on social and private investment in higher education
- Cost-sharing between beneficiaries/families and the state
- State student loans based on income-contingent repayment system.

According to Eicher (2000: 37) the inability of economists to offer an optimal solution to higher education funding has partly contributed to the adoption of different funding models by countries with similar political institutions. It is opined that "*mixed financing is better than either exclusively public or exclusively private financing*" (ibid. 72)

2.4.1 Higher Education Funding Models in Europe

The quest to undertake collective policies for political, economic, and social integration under a broader and powerful European Union necessitated considering higher education as a vital and critical ingredient required for the successful and potent Union (Jongbloed 2008:3). To realize the proposed dream of becoming a potent global knowledge economy, three treaties were endorsed by the nation-states of the European Union in the late 1990s as follows (Jongbloed 2008):

- The Sorbonne and Bologna Declarations (1998, 1999) with the objective of making higher education programs comparable in member states and to constitute a European "higher education area" by 2010. The system also established higher education at three levels namely: bachelor, master's and doctoral (PhD)
- The Lisbon Strategy (2000) geared towards reforming and integrating the Union's higher education system into a potent, dynamic and united knowledge-based economy in the world to ensure sustainable economic growth capable of generating adequate and better employment opportunities as well as stronger social cohesion; and
- The Modernization Agenda (2007) which recognized education, research, innovation and modernization of higher education institutions as main pillars of the Lisbon Strategy
- To implement these treaties required huge funding for higher education as "knowledge and innovation for growth" was identified as part of the three vital issues to be addressed (European Commission 2005). The Union was however, in a dilemma as the option for

raising resources to finance higher education contravened the then contemporary social view that higher education funding is the sole responsibility of the State and raising resources through tuition fees will not be approved by the European Parliaments (Jongbloed 2004).

The European governments were of the conviction that funding higher education and research from private sources would not push Europe into development parity with the U.S. but rather create a widening gap (Jongbloed 2008: 4). The search for the appropriate funding model commenced with the directives from the European Commission that leaders of member-states should double their Research and Development investment as well as increase industry research sponsorship from 56 percent to 66 percent by 2010 (European Commission 2005). Further, the fear of decreasing access to higher education made national policies anti cost-sharing in higher education (Vossensteyn and Mateju 2008). Funding mechanisms evolve as government develops tools to implement identifiable goals for higher education, and the desire to ensure sustainable funding for higher education institutions in the long term, and this often necessitates designing a regulatory and financial framework for higher education institutions (Eastermann, Pruvot and Claeys-Kulik 2013; Jongbloed 2008: 5). Funding models in European higher education systems are therefore characterized by market orientation, deregulation, liberalization, and performance agreements (Jongbloed 2008: 6).

Traditionally, higher education funding in Europe has been dependent largely on public grants, with a lump sum funding and public authorities are very eager to ensure efficiency and value for money for funds invested in higher education (Eastermann, Pruvot and Claeys-Kulik 2013: 4). Public grant support constitutes between 50 to 90 percent of the higher education resource requirements per year (ibid). Other sources of funding to supplement state grants are: students' contribution to their education, internally generated revenue from contracts with the private sector, philanthropic grants, revenue from services provided by the universities i.e. consultancy, renting of university facilities, residences and others (ibid:6). The EUA Public Funding Observatory was also established by the European University Association (EUA) to monitor and assess the performance of public funding support to universities in Europe (ibid). Evidently, higher education institutions' efforts at generating additional income are motivated by the

persistent public grants cuts since 2008 (op cit: 7). Parts of Europe such as the Nordic states, Austria, Germany, Belgium, France, Czech Republic have about 5 percent of their higher education income structure coming from tuition fees. Another group i.e. United Kingdom, Italy, Ireland, Poland etc, have at least 10 percent of their income generated from tuition fees (ibid). It is worth noting that Europe also disburses funds to its member-states and some member-countries' governments reduce the state support in lieu of such European fund disbursement, though such funds often require counterpart funding from the receiving university and is highly competitive (ibid: 8). Governments often release grants in blocks for specific earmarked expenditures such as teaching, administrative/operational costs, research and others, and the quantum of funds released may be decided through negotiations of specified formula and the modalities may differ from country to country (ibid). Some grants are also competed for and are paid directly to the beneficiary institutions, for instance, "*the Higher Education Innovation Funding Scheme*" and "Successful Bachelor's Degrees" facilities in the United Kingdom and France respectively.

The most commonly used funding model in European universities is the "formula-related block funding" which constitutes about 50 percent of models. Some universities also adopt the "negotiated block funding" model, while others use a mixture of the models (ibid: 9). Performance-based funding models adopted may also differ from one country to another. While some institutions link funding to formula-related systems and do not consider "input-output" scenarios, most competitive funding systems adopt the system based on productivity i.e. enrollment model (op cit.). However, the enrollment model links funding to the level of service, quality often suffers, and the student graduation rate is also minimal (Rand 2016: 1). Government policy priorities often determine how much is to be allocated to an institution, for instance, the level of internationalization of an institution in terms of research, students, staff and other collaborations (ibid).

2.4.2 Higher Education Funding Models in Developing Economies

Higher education funding in developing economies especially sub-Saharan Africa, has been the sole responsibility of government with students/parents bearing little cost. Teferra (2007) has noted that in sub-Saharan Africa the state provides 90 percent of support to higher education

institutions with variations in different countries. Darrel and Dundar (2000) have observed that though the number of students enrolled in higher education has tripled in the past two decades, the state financial support has seen just 15 to 20 percent increase over the same period. While annual student enrollment in Argentina increased by 5.9 percent, public funding declined at 1.5 percent per annum in 1960 and 1990 resulting in a reduction of per student expenditure of 7.5 percent per annum (Gertel 1991). Again, public funding strategy for tertiary education is skewed in favor of students from rich families as noted by Espinosa (2008), in his review of the educational policies in Chile from 1987 to 1998. He observed that most tertiary education beneficiaries come from the upper and upper-middle income families compared to students from lower and lower-middle income groups (ibid). Similar observations have been made in Egypt (Fahim and Sami 2011) and Tunisia (Abdessalem 2011) where public spending on higher education favors students from the richest families who are able to access the higher education facilities. Thus, the limited state support has crippled expansion in tertiary education resulting in keen competition for the limited spaces which are always accessible to the rich in society (ibid).

Arguably, the performance tests used by higher education institutions to enroll students are highly correlated with family income and therefore, the rich have an advantage over the poor (Franco 1991). It has been further argued that globally, tertiary education has a higher private rate of return than social rate of return, that is, while the private rate of return for tertiary education is 27.8 percent, the social rate of return is 11.3 percent (Psacharopoulos and Patrinos 2004). The declining government revenue coupled with the perceived high rate of private return to tertiary education has made governments rethink the role of the state as the sole funder of tertiary education and called for cost-sharing with beneficiaries of tertiary education. The search for higher education funding policy alternatives has become imperative in developing countries (Sam 2016: 4), and most developing countries adopt a combination of funding policies such as privatization, tuition fees, financial assistance schemes, internationalization.

The quest to expand access to higher education resulted in governments of developing countries introducing policies that would motivate and encourage the private sector to engage in for-profit higher education provision in the 1990s (Haupman 2014:1). Consequently, the private sector involvement increased higher education growth with Malaysia recording the largest private

higher education increase from 156 institutions in 1992 to 706 institutions in 2001, while student enrollment in these private institutions increased from 55 111 to 294 600 in the same period: a 434.6 percent enrollment increase in nine (9) years (Marimuthu 2008). Similar growth was recorded in Brazil where the number of private institutions increased from 689 in 1997 to 1652 in 2003 with student enrollment rising from 970 000 in 1994 to 2.4 million in 2002: a 147.4 percent growth in eight (8) years (Bertolin and Leite 2008). In Ghana, tertiary education institutions numbered 146 in the 2013/14 academic year of which nine (9) were public universities, 10 quasi-public tertiary institutions, 61 private universities/colleges, 10 polytechnics, 41 colleges of education, and 15 nursing training colleges (NAB 2015). The total enrollment of students for the 146 tertiary institutions was 389 897 in the 2013/14 academic year with the nine (9) public universities enrolling 228 347 of these students while the 61 private universities/colleges had 65 890 of these students (ibid.).

Public university institutions in Ghana increased in number from three (3) in 1991 to nine (9) in the 2013/14 academic year with student enrollment increasing from 15 365 in 1993 to 228 345 in the 2013/2014 academic year, with a 64:36 percent ratio enrollment for humanities and science programs respectively (Duwiejua 2015; NAB 2015). The private sector participation in Ghana also improved efficiency with cost per student in public higher education being 14 percent higher than the equivalent private sector higher education cost in Jordan (Al-Salamat et al. 2011). However, the increase in efficiency and numbers in the private universities was not accompanied by quality delivery with Brazil, for instance, consistently presenting poor performance in relation to relevance and effectiveness (Bertolin and Leite 2008); that is, higher education marketization in developing countries has not resulted in quality improvement as the regulations for private sector operations are not effective ((Teferra 2007). Again, the private sector mostly enrolls students from rich families due to the high tuition fees which is their main source of income and this further widens higher education inequality (Johnstone et al. 2008).

The desire to increase the resource base of higher education institutions has resulted in costsharing between the government and beneficiary students through the introduction of tuition fees, and as a way of government shedding some financial burden to the beneficiary students and their families (Johnstone 2006:1). It is expected that tuition fees payment creates competition for students among public higher education institutions and increases efficiency and quality (Barr 2003). Johnstone (2002) has asserted that the disproportionate higher education access for students from rich family backgrounds justifies the introduction of tuition fees payment for equity purpose. However, tuition fees increase higher education costs and limit its access for the poor (ibid). Even the highly subsidized tuition fee of \$693.00 in Kenyan public universities is still unaffordable for the poor given per capita income of \$390 (Otieno and Menene 2007).

Introduction of tuition fees has therefore been fiercely resisted in some developing countries, in some cases, resulting in violent student demonstrations and destruction of lives and properties in Nigeria between 1976 and 1986 (Eboh and Obasi 2002). In the Republic of South Africa a series of university student demonstrations nationwide code-named "Fees Must Fall" targeted the government to have tuition fees increases in the 2015 and 2017 academic years reduced, and finally to implement free tuition, resulted in violent clashes between students and the police (Hauser 2016). The South Africa Higher Education Minister, Nzimande (cited in Gqirana April 2016) reported damages to university properties in the amount of R300.3 as a result of student demonstrations against tuition fees payment. Efforts to drop tuition fees which has resulted in loss of lives and properties in some sub Saharan- African countries has led to the design and implementation of a hybrid tuition-fees package code-named 'dual-track' where higher education applicants whose grades are not very competitive for university admissions are admitted but are made to pay fees (Johnstone 2002). Governments in developing countries have however designed means-tested student loans schemes and grants to support students from poor family backgrounds to access higher education (ibid). The student loan facility however, has encountered many challenges ranging from poor loan recovery rate, high migration of students after graduation, ineffective administrative policies and implementation procedures as well as blanket subsidies which make the loan schemes very expensive and unsustainable (Barr 2008, 2003). Chapman and Lounkaew (2010) have lamented the inefficiency of collection and high administrative costs associated with the student loans.

Another funding regime of higher education has been internationalization where satellite campuses of a university are established in a different country while a variety of teaching delivery modes are adopted to teach for extra income (Knight 2007: 207). Internationalization

involves a world order where higher education in different nation-states enter into strategic relationships to recruit international students, staff exchanges, and partnerships between universities for political, economic, social-cultural and academic mutual benefits (Scott 2000: 4). It is (Internationalization) a philosophical ideology with a deliberate political, economic and social agenda, which defines and explains programs and policies the parties involved (universities and foreign governments) plan to implement in response to globalization (Altbach et al., 2009). Teferra (2007) has opined that Sub-Saharan Africa is not keen on exploring this funding regime due to its poor financial and infrastructural base as well as economies of scale. However, India is reported to have about 150 of such foreign institutional arrangements (Altbach 2009). There were 7 500 Nigerian students pursuing tertiary education programs in Ghana in 2013 and who paid N16b (US\$44.3m at an exchange rate of US\$1 to N361.214) as tuition fees per annum, which is more than the total annual budget of N121b (132.2 percent) for all federal universities in Nigeria (Adamolekum 2013). Again, about N246b was spent in United Kingdom tertiary education institutions by Nigerians in 2010 which constituted more than 60 percent of the education sector budget in Nigeria in 2012 (ibid).

2.5 Higher Education and Socio-Economic Development in Africa

This section identifies and discusses enablers that inform the levels of funding in higher education and how these enablers are related and propel higher education development. Specific issues identified and discussed include the linkage between higher education and socio-economic development with a focus on the relevance of funding higher education research as a panacea for socio-economic development. Public investments in higher education in Sub-Saharan Africa have not been as high as in basic and secondary education mainly because of the insufficient appreciation of the positive role of tertiary education in socio-economic development (Bloom, Canning and Chan 2006). This focus had been with the support of international development agencies, who in the recent past, have focused on basic and secondary education as a means of improving economic growth and reducing poverty, to the neglect of tertiary education (ibid:1).The summit held in Dakar in 2000 on the theme "Education for all" emphasized only basic education as a driver of social welfare (op cit.). Evidently, lack of empirical evidence on the positive role of tertiary education had accounted for the neglect (Tilak 2003), as portrayed by

the work of Friedman and Rose (cited in Bloom et al. 2006:1) that "higher education may promote social unrest and political instability".

It is instructive to note that the Poverty Reduction Strategy Programs (PRSPs) of most African countries did not consider or assign any role for tertiary education as they do not recognize the specific contribution of higher education to Africa's development requirements (Bloom et al. 2006:6-7). This decision was partly informed by the perception that African tertiary education graduates, especially, medical professionals, mostly migrate to the advanced economies for greener pastures and nations are not ready to invest in individuals who will leave and never return. The United Nations Conference on Trade and Development (UNCTAD) noted that currently almost 30 percent of Africa's university-trained professionals reside and work outside Africa. It is further projected that 50 000 African-trained PhD graduates work outside Africa (ibid: 7). Current developments since the 1980s have however given a contrary view of the negative perception of the role of tertiary education in nation building; with India's advancement onto the world's economic stage cited as resulting from its desire to encourage high-quality, technically focused tertiary education for most of its citizens (ibid). Indeed, it is argued that if Africa has well trained human resource in the areas of road construction, railways, power plants, telecommunications and others, the continent's infrastructural systems will be enhanced and strengthened (Bloom et al. 2006:7). The costs of road construction in Sub-Saharan Africa are very expensive as equipment and expertise are imported which could be minimized if higher education is enhanced and curricula is designed to match Africa's development needs (ibid).

In recent years, the international development agencies have reconsidered their stance on investment in tertiary education and African governments currently appreciate the relevance of tertiary education in socio-economic development and conclude that for multi-purpose development strategies all levels of education should be given due attention (Bloom et al. 2006:8). A World Bank report issued in 1999 demonstrated the positive relationship between tertiary education in mathematics, science and engineering and improved economic performance and noted that developing countries could explore knowledge to minimize the income disparities with the advanced rich economies worldwide (ibid.:9). The World Bank has therefore postulated that tertiary education should be allocated at least 20 percent of a country's education budget to

boost and enhance its performance in the world's knowledge economy (World Bank 2002). The World Bank has further created monitoring benchmarks to measure countries' performance in the knowledge economies: code: Knowledge Economy Index (KEI), and the main indicators are (Bloom et al. 2006:9):

- The favourability for knowledge development within the economic and institutional regime
- Education
- Innovation; and
- Information and Communication Technology.

Unfortunately, with the exception of South Africa, Botswana, Mauritius and Namibia with a KEI score of 5.4, 5.0, 4.5 and 3.4 respectively in the 1990s, other Sub-Saharan African countries recorded less than 2.0 points out of 10; i.e.: Ghana- 1.9; Nigeria-1.0; Cameroon-1.3 (World Bank Institute 2004). As a further boost to tertiary education, the World Bank's Commission for Africa has directed the international donors to inject US\$500m per year from 2010 into Africa's higher education institutions up to US\$3b in a period of 10 years to raise centers of excellence in science and technology, and described Africa's tertiary education to be in a *"state of crisis"* (Bloom et al. 2006:10). It is opined that the existing policy environment plays a vital role in reaping the full benefits of tertiary education in a country's economy and this differs from one African country to another, therefore, the positive impact of tertiary education on economic growth differs from one country to another (ibid: 9). Though research institutes and other public and private organizations engage in social and scientific research, universities are the main powerhouse of knowledge creation and dissemination, partly because they provide formal training and knowledge for future researchers, teachers, and scholars (Altbach 2007:92).

The relevance of research to society partly accounts for the reason why some institutions in the western countries are designated as research universities (ibid). In the view of Altbach (2007), nations such as the United States that have been successful in conducting academic research have a differentiated tertiary education system, while in developing countries and Sub-Saharan Africa in particular, economic and political challenges have made it very difficult for faculty and students to engage in active research, with African universities struggling to resolve issues of

higher education access, governance, management challenges, quality and relevance of academic programs, in addition to decline in public funding (Atuahene 2011:322). Available data indicates that as at 1995 Africa was ranked the least productive in terms of research output, with 5 839 published academic papers compared with 15 995 for South Asia, and 14 426 for Latin America and the Caribbean (Task Force on Higher Education and Society TFHE 2000). From 1990 to 2010 Sub-Saharan Africa had 222 113 published academic papers compared to more than 800 000 for North America and 9 879 656 for Europe. Indeed, North America's total publication of more than 200 000 papers from 1990 to 2010 (a period of 20 years). Table 2.1 below explains selected world regional publication performance from 1990 to 2010.

Countries	1990-	1996-2000	2001-2005	2006-2010*	Total
	1995				
North	18,198	20,989	29,410	47,648	116,245
Africa/Arab					
Southern Africa	28,466	26,071	30,089	43,612	128,238
East Africa	6,725	6,673	8,589	13,941	35,928
West Africa	10,632	9,700	11,909	21,244	53,485
Central Africa	517	328	385	841	2,071
Islands	139	260	685	1,307	2,391
North America	>200,000	>200,000	>200,000	>200,000	>800,000
South America	62,893	96,511	146,734	181,951	488,089
Latin America	>102,824	>103,566	>104,762	>105,345	>416,497
Central America	2,248	2,421	3,247	4,613	12,529
Europe	1,173,973	1,335,316	1,758,123	5,612,244	9,879,656
Oceania/Australia	123,709	126,352	130,907	139,098	520,066
Total	1,730,324	1,928,187	2,424,840	6,371,844	12,455,195

 Table 2.1: Regional Academic Publication Performance

Source: Atuahene (2011) (Thompson Web of Science- SCI-EXPANDED, A&HCI and SSCI). Notes *2010 data up to 19th September 2010: Data available for Central African Republic came from Burundi and DRC. North America: Canada and the United States recorded 200 000 for each year considered. Latin American numbers include over 100 000 published works reported from Mexico for each of the periods considered.

The poor performance in research in African universities could partly be attributed to the historical mandate to train civil and public servants to service public offices after independence

(ibid). Further, university professors and lecturers in Africa are saddled with high teaching loads resulting from ever increasing student enrollment and declining public funding (op cit.). In 1980, average regional expenditure per tertiary student was US\$6800, but this declined to US\$1200 by 2002 (Ware 2008 cited in Atuahene 2011:322). Other observed challenges confronting SSA active research work include the high cost of ICT infrastructure, language barriers, and lack of recognition of scholarly work from Africa among others (Atuahene 2011:332-337). Obviously, from the local and international perspectives, enhanced investment in higher education and research holds the key to Africa's socio-economic development of the region. Thus, higher education investment will help African governments to overcome their developmental challenges while African scholars will also be able to effectively investigate problems of the region (ibid: 339), as local inputs generated from research are vital to solving African developmental challenges Mamdani (cited in Mulondo 2010).

2.6 Historical Perspectives on Higher Education Funding in Africa

Higher education institutions in SSA were developed and modelled by the western colonial powers whose desire was not to enlighten most citizens in their colonies, especially higher education for the people (Awortwi 2008:3). The colonial powers designed and shaped education in Africa, especially higher education to manage their colonies to promote their interests, and therefore conducted education in the languages of the colonial powers (Barka 2013:4). The underlying motive for the action was that higher education could make the indigenous peoples knowledgeable and critical in their thinking which could undermine the colonial powers the authority in the colonies as educated people could agitate for their rights and freedoms. The relevance of higher education became crucial in the 1960s when many African countries were on the verge of attaining independence and required quality human resources for economic development, a period earmarked as "a decade of development in Africa" (Barka 2013: 4). Higher education importance was re-echoed at a conference held by UNNESCO in 1960 and later, the Association of African Universities (AAU) seminar in 1972 (Yesefu, 1973), resulting in the establishment of many public universities (Barka 2013:4). Governments and higher education management could not however, properly project this pivotal role of higher education at the inception of independence, and therefore university education institutions were considered as

ivory towers or luxury goods which were good to have, but unnecessary (Moja, Cloete & Muller, 1996).

The post-independence period of Africa was also dominated by single-party/authoritarian political regimes which paved the way for military take-overs in the 1970s and 1980s (Kienyi and Datta 2011). For instance, in 1966, Prime Minister Milton Obote overthrew Uganda's constitution and removed the president and vice-president. Idi Amin also ousted Obote in 1971 and declared himself president. Ghana's president Kwame Nkrumah was also ousted from power in 1966 by the military and the trend continued in many SSA countries (Anene 1997 cited in Kienyi and Datta 2011:4). Military rule which abhors dissenting views associated with intellectuals and university students deprived higher education of the needed financial support (Friedman 1980 cited in Bloom et al 2006:1). From the perspective of Scott (2018:2), subvention decline is the consequence of the dissenting views of both academics and students in universities against the ills and injustices in society. Societal ills such as environmental degradation by corporate institutions, racism, male dominance in society and many others are criticized by academia, especially, those in humanities which is not acceptable to governments and other conservatives who benefit from the status quo. The way forward to suppress these vociferous critics is to defund and impoverish them (ibid). Arguing about the subvention decline of public universities, Santa Barbara (cited in Scott 2018:4) has explained that conservative elites had purposefully and strategically ensured the de-funding of public higher education institutions for their role in training and empowering democratic and multicultural middle classes who were the biggest critics in society.

Funding should support vocational training for tertiary students instead of academic programs that train the mind and make a complete and actively intelligent people in society capable of high level intellectual rigor (Scott: 2018: 4-5). The emphasis on vocation training in tertiary education has resulted in academia producing easily manipulated graduates who are unable to interrogate and investigate issues to express their candid perspectives (ibid.). Other strategies for gagging the academic critics was to de-professionalize the academic teaching profession through engaging more contract workers without any tenure of office. This group is not permitted to participate in the decision-making processes of the institutions, have no job security and have to

reapply annually (in the case of universities in Ghana: 2, 4, and 6 years) for reappointment hence, they need to be disciplined and obedient without raising issues around their rights (ibid 8). In such circumstances management can vary and adjust faculty teaching loads depending on how many students enroll in a course (Chomsky 2017:6).

Higher education institutions employ the private sector strategy of revenue mobilization and resort to methods such as corporate partnerships, rental of university properties, formation of private corporations, enhanced marketing strategies, distance education programs and others (Scott 2018:8). This corporatization has destroyed the value system of academia which has lost its independent thinking to corporate entities in exchange for funding (ibid). The quality of education is destroyed to the extent that students are not trained to be critical thinkers, to reason and question, but learning to know how to obey, follow rules, and to endure "tests" and "examinations", as students are denied full-time faculty to be mentored and counselled by (ibid.:9). The worst of it all is making higher education unaffordable to prospective students from poor family backgrounds, while the children from wealthy families enjoy easy access, graduate and acquire well-paid jobs to entrench inequalities in society (ibid.:10). The end results have been the complete silence of academia and the hijacking of higher education institutions to impoverish the future generations with a debt burden hanging around their necks which silences them forever (ibid.:11). Despite the high cost, students are coerced into accepting that they require higher degree certificates to enjoy a middle-class lifestyle and therefore students are ready to access loans made available by the state to enjoy higher education and become deeply indebted upon graduation and silenced forever (op cit.). This agenda explains the statement of Museveni, the President of Uganda that "he would offer the University a stock of cattle and grazing land, presumably to get the staff and students in the Agriculture and related Science Faculty to produce dairy and agricultural products as cheap food to subsidize meager staff salaries" (Mamdani 2009:20); this was in response to staff demand for 'a living wage'.

The World Bank has further presented university education as not yielding good returns to the SSA developmental agenda compared to primary education and not worth funding by public resources, supporting their claim with the extensive brain drain in SSA (Lian cited in Awortwi 2008: 4). The World Bank went to the length of presenting a blueprint to African Vice

Chancellors at their Conference in Harare in 1986 recommending that Africa did not need university education (Mama 2004). A combination of these reasons made SSA governments perceive investment in university education as a wasteful expenditure, especially at the time these nations were grappling with heavy debt servicing and other important competing social demands. However, Wedgwood (cited in King, McGrath and Rose 2007) have intimated that Tanzania attained universal basic education for her citizens in the 1980s but has not resolved its developmental challenges with poverty very prevalent.

From the 1980s to the mid-1990s, due to debt overhang and the implementation of structural adjustment policies in African states, higher education was viewed as a luxury which necessitated a severe reduction in government spending. Over 25 years there was a decline in public expenditure per student from an average of US\$6,800 to US\$981 in 2005 for 35 countries (ibid). From 1985 to 1989, 17 percent of World Bank spending was on higher education, but this declined to 7 percent between 1995 and 1999 (Bloom, Canning and Chan 2005:6). The justification for the drastic cut was that Africa was facing an economic crisis and economic and social rates of return on higher education were limited compared with basic education hence investment should be focused on basic education (Dakar, 2000 cited in Barka 2013:5). However, the current evolution of the scientific and knowledge economy in the globalized world which is a product of a new thinking over the past three decades, is based on empirical evidence which attests to the fact that higher education yields greater returns to society than basic education. Higher education is now perceived to play a critical transformative role through the improvement of efficiencies in the daily lives of humanity as well as alleviation of poverty on the continent (ibid). The World Bank's study on the Knowledge Economy Index (KEI)¹¹ shows a positive correlation between a country's level of knowledge index and its development. Except for South Africa, Botswana, and Mauritius that have average scores, most African countries scored the lowest KEI. Nigeria, Cameroon, Malawi, Tanzania, and others recorded less than two out of a possible ten points (World Bank Institute 2004). According to Awortwi (2008: 7) there is "a positive and statistically significant correlation between higher education enrollment rates and

¹¹ Criteria include performance of four aspects of the knowledge economy: the favorability for knowledge development within the economic and institutional regime; education; innovation and information and communication technology.

governance indicators, including absence of corruption, rule of law, absence of ethnic tensions, bureaucratic quality, low risk of repudiation of contracts by governments, and low risk of appropriation". Further, a one-year increase in the tertiary education stock would raise the long-run steady-state level of African GDP per capita due to factor inputs by 12.2% (Bloom et al., 2006).

The need to revitalize the higher education sector in Africa was realized in the 1990s and 2000s resulting in various initiatives with international partners; a period which coincided with the United Nations Millennium Development Summit which designed and accepted new development initiatives to reduce poverty and improve upon general living standards with targets set for 2015 (McGarth 2010 cited in Jowi, Knight, and Schoole 2014: 13; Sawyerr 2004). Dr Kofi Annan, former United Nations Secretary General, underscored the role of the African universities in the continent's development agenda and in the drive to attain the Millennium Development Goals (MDGs) when he observed that:

"The university must become a primary tool for Africa's development in the new century. Universities can help develop African expertise; they can enhance the analysis of African problems; strengthen domestic institutions; serve as a model environment for the practice of good governance, conflict resolution and respect for human rights, and enable African academics to play an active part in the global community of scholars" (Kofi Annan, quoted by Bloom, Canning and Chan, 2006). The call for effective, efficient and sustainable funding for higher education has become imperative.

2.7 Current Imperatives of Higher Education in Africa

Though higher education is undergoing transformation with massive expansion in Africa, there are numerous challenges ranging from quality to funding, governance and employment. A plethora of stakeholders such as policy makers, the World Bank, the African Development Bank (AfDB), the African Union (AU), the Association of African Universities (AAU), the Association for the Development of Education in African (ADEA) and others attest to the fact that higher education should be centrally placed in nations' strategic development plans to ensure sustainable development in Africa (Teferra 2015:9). The United Nations Education, Scientific and Cultural Organization (UNESCO) as well as the World Bank have observed that African
higher education is the most marginalized in the world (Ahamefule 2014:13). It is noted for generating the lowest knowledge, as well as having very low capacity for accessing and disseminating information in the world with an ineffective innovation capacity (Oyewole 2006).

According to Ahamefule (2014: 13), "African higher education has been described as being plagued by traditional pedagogy, low gross enrollment, high rate of brain drain, poor funding, poor working conditions, poor quality graduate program and capacity development" In his research study on: "The African Higher Education Conditions and the Unethical Practices Nexus", Ahamefule observed the need for critical and objective assessment of African higher education from the perspective of what existed before, and the current conditions, and to analyze why the current conditions persist (Ahamefule 2014: 13). The call for assessment of "what was" and "what is" is motivated by the fact that African higher education flourished in the 1960s and 1970s but started to decline in the late 1970s which does not make poor performance a foundational feature of African higher education (ibid). In the candid opinion of Akinkugbe (2001): "this query is critical especially at the backdrop of the fact that attitudinal factors are no longer driven by technocracy, resource assurance and consolidation". The worsening situation of African higher education can be attributed to lack of material resources and the urgent need for a "shift from the material and quantitative analysis of African higher education condition to qualitative measures" (ibid.).

In the current highly dependent and competitive global socio-economic environment, producing knowledge in large quantities is not as vital as the quality and currency of knowledge produced (Teferra 2015: 11). In terms of numbers, Africa has experienced universal growth with some countries showing phenomenal expansion. In Tanzania, student enrollment in public and private universities increased from 31 674 in 2003-2004 to 135 365 in 2010-2011 (op cit.), a 327 percent increase in seven years. At the University of Dar es Salaam, while the number of applicants grew from 5 325 (in 2002-2003) to 17 287 (in 2009-2010), the number of students admitted grew from 2 015 (in 2002-2003) to 6 952 (in 2009-2010) (Ishengoma, 2013). In Senegal, the enrollment at UCAD grew from 24 780 in 2001 to 74 250 in 2012 (Sall, cited in Teferra 2015), reflecting a 200 percent growth in eleven years. University admission in Uganda recorded an 800 percent increase in ten years from 2001 to 2011, the number of admissions increasing from 20 000 to 180

000 respectively (Musisi, 2003; Oboko, 2013). Ethiopia also experienced growth in higher education admissions from 79 000 in 1991 to more than 600 000 students in 2012 (Ayalew, cited in Teferra 2015). Accompanying this encouraging and remarkable growth in numbers, however, has been considerable variations in enrollment.

According to Goolam (cited in Teferra 2015:11), in 2009, while the overall gross enrollment ratio for Sub-Saharan Africa was about 7 percent, that ratio was as low as 0.5 percent for Malawi, 2.0 percent for Chad and Eritrea, 2.5 percent for Central African Republic, and 2.7 percent for Burundi. While these countries show a need for significant improvement, other countries showed promisingly higher ratios—for example 26 percent for Mauritius and 15 percent for Cape Verde, Botswana, and South Africa (UIS, 2010). Ironically, however, despite this massive growth, higher education in Africa remains the world's least developed and needs to improve further if it is to catch up with the rest of the world (Teferra 2015:12). The major challenge, however, is that the growth of African higher education has not been associated with the requisite quality expected of higher learning.

The massive expansion in African higher education has not been supported by the appropriate human, financial, and material resources with serious repercussions for quality of the system (Teferra 2015:13). According to the World Bank (2010), Africa has maintained its public investment in higher education over the last 15 years, allocating approximately 0.78 percent of its gross domestic product (GDP) and around 20 percent of its current public expenditure on education to this sector. However, during this period, the total number of students pursuing higher education tripled, climbing from 2.7 million in 1991 to 9.3 million in 2006 (an annual average increase rate of 16 percent) to more than 10 million in 2014, but public expenditure in the sector only doubled (an annual average increase rate of 6 percent). In very poor African countries about 0.63 percent of GDP is allocated to higher education and while student enrollment quadrupled from 1991 to 2006 public grants only increased by 75 percent, creating a funding gap to be managed.

This funding discrepancy has direct implications on the effect of the massive expansion, spreading resources so thinly that the services and quality have suffered considerably. In one extreme case in Zambia, the universities received only 20 percent of their projected expenditure

from the government (Masaiti 2013). Africa is contending with the challenges of expanding access to higher education as well as ensuring quality delivery. These challenges require heavy doses of resources for a period to ensure sustainability (Teferra 2013). It was projected that about US\$45 billion (value in 2006) was needed to improve the institutional capacity of public higher education globally between 2006 and 2015 with US\$20 billion of the amount required for low-income countries (World Bank 2010).

The common pattern in the African higher education system is the poor finance base, a wellknown deplorable condition; but a related issue that has received little attention has been the ineffective and inefficient ways of deploying and utilizing available resources. In this age of cost-sharing and resource mobilization, it is still customary in many African institutions to return unused budgets and funds, including self-generated funds, to the national treasury at the end of the financial year, hampering incentives for institutions to generate their resources or even to deploy them strategically (Yigezu 2013). The University of Addis Ababa used only 10 percent of the US\$1 million budget allocated for research and development in the 2008/09 academic year due to "inefficient financial management, poor planning, feeble institutional capacity, cumbersome bureaucracy, and weak institutional autonomy" (Yigezu 2013; Nganga 2018). A summary of the main challenges at the heart of African higher education are listed below:

- Poor access to higher education: though the rate of growth (gross enrollment) is the fastest in the world, (Carnegie Report, 2012), the pace of growth is slow which implies low access to higher education (Ahamefule 2014:14). Even with improved access the responsiveness of higher education institutions in meeting the needs of potential students has not been optimum (ibid)
- Poor knowledge creation and innovation: higher education institutions in Africa are noted not for knowledge creation but as net consumers of knowledge created and developed in the advanced economies. A few researchers are active but not significant enough to be models and appropriately mentor postgraduate students
- Poor research output: analyzing output on the basis of the number of researchers per million people, total patents received and the scientific and technical published articles, shows very low African contribution to global knowledge which dropped by 11% from 1987 to the 1990s. Invariably, Africa's contribution to global knowledge has made the

continent less visible with little impact on knowledge creation; accounting for 12% of the world's population but contributing less than 1.5% of research papers publication worldwide (Oyewole 2006)

- Inadequate funding: many African countries reduced their budgets in response to the structural adjustment requirements in the 1980s as directed by the World Bank and the cuts were extended to tertiary education funding (Ahamefule 2014:15). The cuts resulted in tertiary education institutions losing their public good status and being treated as any other commodity fighting for a place in the market (Carnegie Corporation 2012 cited in Ahamefule 2014:15). Currently, most African governments have not invested adequately in tertiary education to sufficiently maintain institutional performance and research and this remains a major challenge in higher education in Africa (Ahamefule 2014:15)
- Corrupt university administrators: corrupt university administrators mismanage and misappropriate the inadequate funds accessed resulting in a number of university management being implicated in unprofessional conduct. Higher education leadership is drawn away from honesty and accountability to dishonesty and unrestrained fraudulence (CDHR 2001:5)
- Ill-discipline of staff and students: university governance and management are confronted with serious operational challenges (Ahamefule 2014: 14). There is ever increasing gangsterism, violence and disruptive behaviors. Students are no longer inclined to "burn the midnight oil" to get quality education or attain academic and professional excellence, instead engage in cultism, examination malpractice, drug abuse, and indecent dressing styles all of which support the super structure of campus prostitution
- Academic staff spend precious time on fighting for better work conditions most times due to inadequate funding. This results in neglect of academic activities through strikes, and rushed examinations. Some academic staff are not committed to the job and therefore absent themselves or come to class late, resulting in non-coverage of the course content
- There is obvious commercialization of intellectual property. Lecturers collect money to write projects and theses for students. These have degenerated to a level where the degrees in some higher institutions in Africa are regarded as "sexually transmitted degrees" (Kanu and Akanwa, 2012).

There is always a qualitative relationship between unethical practices and decline in quality output in educational institutions. Embracing ethical practices therefore is one of the strategic options for changing the present dismal condition of the African higher education sector (Ahamefule 2014:16). The quest for additional resources for effective management of public higher education institutions calls for management efficiency and transparency. According to Basu (2004) inefficient use of IGR is likely to engender apathy from the donors or payers of the IGR, including those involved in its generation. However, concern has been raised about the attitude of some chief executives of public universities who do not heed technical briefings on fund use and go ahead to spend contrary to what the financial policy would permit. Such wanton disregard for established policies becomes fertile grounds for corruption which poses a threat to academic quality. Reporting in the University World News (August 2016) Marklein stated that an international panel of experts have assessed the creeping cancer of academic corruption with its emerging dishonest practices, described by a Chinese scholar as a "malignant tumour", which poses a threat to the quality and credibility of higher education worldwide. According to Marklein, the experts define academic corruption to include: "diploma mills and essay fraud to high-level bribery in exchange for an institution's degree-granting privileges and media suppression of stories that are unfavourable to governments and politicians", as such practices adversely affect the integrity of academic operations.

Academic corruption and fiscal indiscipline sometimes develop deep into the limited financial resources of tertiary education to the extent of crippling smooth operations. For instance, higher education institutions in India reported having recorded 130 000 ghost lecturers which came to light with the issuing of unique identity numbers for Indian residents (University World News January 2018). Nganga (Nov 2017) has reported in the University World News of 2016 audit report in Kenya that universities operate with more than US\$100m budget deficit and use more than 85 percent of their funds on recurrent expenditure, and mostly on salaries. Again, the Economic and Financial Crimes Commission (EFCC) has reported corrupt activities in Nigerian higher education institutions which include contract inflation, employment of unqualified staff at the expense of candidates of high merit, admission of unqualified applicants, while a chief executive of a public university has been accused of forgery and sexual assault (Fatunde 2017). Clearly, public universities' quest for effective mobilization of public resources requires that

public trust and confidence should not be compromised, especially as these twin-ethical- assets cannot be legislated upon but won on merit (Leveille 2006:13). Eroded public trust emanating from corrupt practices, and non-transparent dealings is most likely to impact negatively on private and public resource inflows into these public universities (ibid.), as no business-minded person would want to donate to an institution for fear of misapplication and embezzlement. There is an instance where the University of Makerere management, in their efforts to motivate staff to improve IGR in their sections, allowed IGR generation units to keep and manage a greater proportion of IGR generated. However, the Public Universities Visitation Team criticized the method in 2007 as the IGR was public funds and should be centralized and managed by the University management for efficiency, transparency and accountability (Mayanja 2008).

2.8 Efficient and Accountable Use of Resources in Higher Education Institutions

An indispensable ingredient for effective functioning of higher education institutions is ensuring political and social acceptance and attracting respect and confidence of the people it serves, that is, commanding public trust (Leveille 2006:13). Public higher education institutions require public resources for their operations, the use of such resources requires public trust that cannot be legislated or forced upon the public but must be earned (ibid). Eroded public trust will adversely affect public resource flow, for instance, donors will reluctantly release funds, policy makers will be adversarial and uncooperative with state interference which will negate institutional autonomy (ibid: 14). Higher education institutions face the dilemma of reconciling the current state funding decline and high expectations vis-a-vis addressing issues of ever increasing costs of delivery, quality, affordability, accessibility, and general benefits from higher education (op cit.). To ensure public trust under the prevailing conditions requires "a spirit of transparency, a culture of accountability and individual integrity" among participants in higher education delivery. Further, to secure and maintain the institutional autonomy and accountability (ibid).

Accountability is defined as performing as expected to justify actions or decisions and to give a satisfactory record or explanation (Concise Oxford English Dictionary cited in Leveille 2006: 37). In public universities, accountability is the responsibility required of management and

system administrators, as well as government officials, to make available to the public reports of their stewardship of public funds (Leveille 2006:34). Accountability and stewardship mandates actors in higher education management to justify to the public the effective and efficient use of public resources with outcomes clearly specified to justify the need for additional funding, where necessary (ibid). These call for proper documentation of operational and educational cost effectiveness as well as making governance systems very clear, adherence to regulatory demands and reform, and assessment policies (op cit.). Effective assessment of higher education accountability should measure resource availability vis-à-vis institutional output and its effect on society as a whole (ibid: 35). There is a fundamental contract between higher education institutions and the public which demands reciprocal relations: while elected public higher education officials and policy makers are enjoined to account for their stewardship to the general public to justify and command public trust, the public is mandated to equip higher education with the capacity to deliver the expected results (ibid).

Higher education institutions and state education officials are under pressure to provide evidence that their institutions are producing outcomes consistent with their mission and worth the cost, especially in the era of deteriorating state and dwindling economic fortunes since the mid-1970s (op cit.). Bowen (1974) has raised methodological and philosophical issues that need to be clarified about accountability, and has posed these questions:

- "Who should decide (and how) what the goals of a public higher education institution or system should be"?
- "Who should decide (and how) what the definition and standards for "worth" should be"?
- "How are costs to be measured and then associated with outcomes"?

According to the Washington Higher Education Board (2004 cited in Leveille 2006:35) "accountability can be a powerful tool for improvement when its purpose is well defined and performance indicators are linked to state priorities". Specifically, accountability systems are designed to (ibid):

- Link organizational priorities to state goals
- Ensure that stakeholders of higher education can easily and readily assess organizational performance and evaluate efforts at attaining set targets; and

• Justify policy decisions made.

In the view of Dressel (1981:146-147): "Institutions have to earn autonomy and they have to be able to demonstrate that that autonomy has been effectively used." For demonstrable evidence by higher education institutions, Dressel (ibid) has noted the following indicators:

- There should be clear evidence of good performance of the task assigned to the institution
- "The institution should demonstrate the capability of self-governance carried out in a dignified and effective manner, as evidenced in the behavior and morale of its staff and students and in the clarity, equity, and applicability of its policies and procedural rules"
- There should be institutional discipline and order
- There must be clear evidence of institutional effectiveness with the use of its resources This task transcends accountability issues to include effectiveness and efficiency in institutional performance geared towards satisfying its clients' i.e. students and society in general
- There should be evidence that the institution has not deviated from its mission and assigned roles while discharging its duties, and that it deserves the autonomy granted.

A summary of the justification for accountability can be deduced from the work of Rhodes (1998 cited in Leveille 2006: 29, 30) which intimates that:

"Universities are learning communities, created and supported because of the need of students to learn, the benefit to scholars of intellectual community, and the importance to society of new knowledge, educated leaders, informed citizens, expert professional skills and training, and individual certification and accreditation. Those functions form the basis of an unwritten social compact, by which, ... the public supports the university, contributes to its finance, and grants it a unique degree of institutional autonomy and scholarly freedom. Within this compact, the university has a reciprocal obligation for impartial scholarship, the highest professional competence and integrity, and a sensitivity towards the need for its services in society at large"

2.9 Funding and Faculty Scholarship in Public Higher Education

The term 'scholarship' has been explained to mean intellectual creative work whose value is assessed by the depth of its reasoning, communicating, and impacting knowledge (Boyer 1990: 15). The main actors of such scholarly creativity have been academics whose main functions

have been identified as embarking on research, publication, and dissemination of knowledge acquired through their research agenda (ibid). This has been the traditional role (teaching and research) of higher education institutions which has been challenged by Boyer (1990) who advocates that it should be given a broader meaning. According to Boyer (1990:16) scholarship should have four separate yet overlapping meanings to include: discovery, integration, application, and teaching; with the new recommendation the functions overlap, and each aspect will be one of the four ways scholars function. Boyer (ibid: 24) has argued that being a scholar meant 'a recognition that knowledge is acquired through research, through synthesis, through practice and through teaching'. That is, scholarship should create an intellectual environment that stimulates knowledge discovery, integration across disciplines, application to significant problems and teaching that encourages public service; and this should describe the mission of institutions of higher learning (ibid). The measuring standards for all the four forms of scholarship should be guided by well-defined goals; resources for adequate preparation; application of modern appropriate methods; vital and relevant results; effective and timely presentation; and highly analytical and reflective critique (Glassick 2000:879).

In recent years, the core functions (scholarship) of higher education institutions worldwide have been challenged by cuts in state funding support. In response to the cuts in state funding, higher education institutions have strategized to mobilize additional revenue internally to complement the given state financial support. According to Eastman (2004:1): "such measures, while potentially effective in stimulating resource acquisition, change the internal values and conditions in ways that may ultimately undermine universities' autonomy, public credibility and capacity to generate knowledge. Can leaders and managers enable their institutions to secure vital revenue, without diluting the values and conditions that have made universities unique and valuable to society?"

In response to cuts in public funding, universities have re-strategized by first cutting costs and seeking out new sources of revenue which directly affect the institutional core values and program implementation processes, including staffing issues (Eastman 2004:1). Internally generated revenue strategies of some United Kingdom universities in the late 20th century necessitated internal management reforms to survive the new funding regime (ibid). This called

for resource allocation decentralization, by shifting from "*central line-item budgeting to block, responsibility center or break-even cost center budgeting*". This newly adopted budgeting system offers the various academic sections/units greater incentives to effectively manage cost as well as mobilize additional revenue. Decentralizing resource allocation resulting from reduced resource inflows mostly influences values and staff behaviors (ibid: 2). In an era of dwindling resources for institutions, decentralizing the available resources could be very beneficial, however, it could adversely affect the capacity of sections of the institution in discharging their societal role independently, and compromise society's trust for universities and their dependence on state support will be questioned (ibid).

Universities which are profit driven often act in accordance with the prevailing market situation and mostly motivate students who are their clients to patronize their programs, as well as making efforts to satisfy the employer (ibid). Higher education institutions which focus on profit generation engage in mass production and their mission is not to promote and disseminate knowledge but to explore ways of making profit with their greatly diminished faculty power, and lack of tenure and control over the curriculum (ibid.). According to Ruch (2001:115) "faculty in the for-profits are viewed by the business side as being delivery of people, as in delivery of the curriculum" and "the academic side of the house becomes a tightly managed service operation" (ibid: 17). Such universities swiftly withdraw from academic programs and activities that do not yield enough profit and manage faculty and space efficiently and are very keen on effective cost accounting control systems (Ruch 2001; Tooley 2001). Assessing the policy implications of "for profit" universities, Eastman (2004: 9) has cautioned that: "university leaders should be aware that, in decentralising resource allocation to promote revenue generation, they themselves may change internal values, roles, and control systems in ways that increase institutional responsiveness to students and clients but ultimately lessen universities' capacities to play unique and autonomous roles in society"

In a survey conducted in four major Canadian universities, it was noted that the income generating behavior of the universities and their faculties was highly focused on strategic management. The institutions appeared to rely on resources that are valuable, rare, and inimitable such as reputation, location, dynamics amongst researchers, and authority to award sought-after

degrees in order to sustain themselves financially and be economically viable (ibid). However, academic disciplines are supposed to be: "fields of restricted cultural production, in which producers create goods for each other (e.g. professors write for scholarly audiences). An individual's position within his or her discipline is a function of peer recognition and esteem. The value of an academic work is not reducible to its economic value or its public importance, research is curiosity-driven, without reference to external needs or commercial success" (ibid: 3). Arguably, university education is closely linked to academic disciplines and professions, and not only to student preferences and market demands (op cit.). Ultimately, the relevance of "for profit" higher education providers cannot be under-estimated however, their agenda contravenes the fundamental roles assigned to universities by society and does disservice to the public in general (ibid). It is worth noting that higher education should be entrepreneurially responsive but should not lose the focus of its vision and mission as assigned by public policy; which essentially require sustainable state block funding (ibid: 11). It is therefore deemed essential to delve into the dynamics of declining public support for public universities vis-à-vis the universities' IGR mobilization activities, core values, faculty and societal expectations. Alternative funding for higher education should be increasingly and carefully explored.

2.10 Higher Education and Alternative Funding in Africa

Higher education in Africa is undergoing social and economic transformation amidst massive expansion, which has implications for every facet of the sector (Teferra 2014:1). It is also becoming increasingly diversified to be responsive to labor market needs and to provide high level occupational preparation in more applied and less theoretical ways (Pillay 2011:1). In terms of demographic trends, Africa's youth population aged between 15-24 years increased from 52.3 million in 1960 to around 209 million in 2010 with tertiary enrollment increasing from 800 000 in 1985 to 3 million in 2002 and 9.3 million in 2006 (World Bank 2010), and to 9.54 million in 2012 (ICEF MONITOR:2015:1). Despite the massive growth in enrollment, Africa has the lowest tertiary enrollment rate and needs to do better if it is to catch up with the rest of the world (Tefrerra 2014:12).

The massive increase in tertiary enrollment in the region is however, not supported by appropriate resources: human, financial and material with major consequence for the quality of

the system (Teferra 2014:13). Africa allocates approximately 0.78 percent of its gross domestic product (GDP) to education and about 20 percent of its current education expenditure has been to tertiary education for the past 15 years (ibid). The resulting funding gap has direct implications for the enrollment massification (ibid:14). The Commission for Africa Report recommends an injection of \$500 million a year, and a total of \$3billion over ten years to revitalize Africa's institutions of higher education as well as to develop centers of excellence in science and technology (Awortwi 2008: 14). However, African governments and heads of higher education institutions seek out donors to provide the funds without which these plans would remain lofty ideas (ibid). Many universities are also developing innovative approaches to resourcing their institutions including the introduction of tuition and academic user fees. In Uganda 70 percent of the student population in Makerere University are privately sponsored (op cit.).

It was against this backdrop that Devarajan, Monga and Zongo (2011:133-154) undertook a study into higher education alternative financing in Africa in 2011 to assess how to "Make Higher Education Finance Work in Africa". The study which focused on Africa's higher education financing problems observed that the rationales for public intervention in higher education is to ensure efficiency and equity, but noted these reasons are either weak or have been undermined by 'government failures' (Devarajan et al. 2011:134). Further the ever-increasing African youth population who also desire higher education could make Africa's global competitiveness very weak and suffer a crisis of failed expectations if the myriad of problems is not resolved (op cit). The study established that:

- The high private rate of return to higher education vis-a-vis the existence of non-fee paying public universities represents a huge rent to those who are fortunate and wealthy to access higher education
- There has been very high growth in private universities in Africa, soaring from 24 in 1991 to 468 in 2007 (op cit: 47); a rise of 1850 percent in 16 years
- The growing number of fee-paying and studying-abroad students is indicative of demand for quality higher education which is not being satisfied
- The prevailing fee-free higher education is not sustainable and should be re-examined. The free public universities should introduce fees with means-tested subsidies for

potential students from poor homes. Government should design a regulatory framework to enable private and public universities to compete on the same footing.

2.10.1 Globalization and IGR in Higher Education Institutions in Africa

Globalization and internationalization also drives higher education institutions into revenue generation and diversification (Guerrero-Cano, Kirby, & Urbano, 2006). The globalization paradigm vis-à-vis the worldwide proliferation of neo-liberal policies, calls for a reduction of state subsidization of higher education and a shift of costs to "the market" and consumers (Marginson & Rhoades, 2002), and this drives public universities to acquire resources from diverse sources. Globalization has encouraged higher education institutions to become more business-like, as public universities are motivated to seek additional funding from non-state sources (see Sawyerr, 2004; Vaira, 2004). This exposes higher education institutions to new opportunities and expands their field of competition, and the quest for financial means to improve their attractiveness becomes imperative (ibid).

Globalization is an act of integrating national economies into a common borderless global economy to enable global mega corporations to move goods and services freely, worldwide, to maximize profit without governmental interference (Brandenburg & De Wit, 2011). Globalization is therefore motivated by economic interests with traces of political and social agendas and strongly perpetuated by the world's largest corporations and the most powerful governments worldwide (Korten 2001). It therefore affects higher education and has created global competition among higher education institutions in different nations and/or market blocs. It has intensified collaboration to strengthen global division of labor with national boundaries becoming irrelevant using high technology and mass culture (Scott 2000: 4). Arshad-Ayaz (2008) has intimated that the activities of the World Bank/IMF and globalization have deeply affected higher education in developing countries through their self-imposed finance-driven reforms. The World Bank is particularly cited for enforcing its globalization ideology on higher educational reforms in Africa through the implementation of structural adjustment programs which prescribe a reduction in public funding in sub-Saharan Africa (Korten 2001 cited in Dzvimbo and Moloi 2013:4).

Modern universities are now fundamentally challenged by globalization and global markets which have undermined public expenditure welfare states on which universities depended for the bulk of their income (Scott 2000: 5, 6). Globalization has created pressure for greater privatization of higher education and the temptation to transform itself into a "market"sector, which has weakened nations with their classic welfare-states (ibid). At any rate, the major beneficiaries are the powerful initiators and actors of globalization who strongly praise the globalization of higher education without recourse to the sentiments expressed by the weaker partners, Sub-Saharan Africa, as public education is subjected to market forces and industrial relations gimmicks (Kell 2005:247; Teichler 1999: 9). Globalization with its prescribed policies of reduced funding for education has placed developing economies, especially those in Sub-Saharan Africa in a dilemma as their attempt at expanding and nationalizing their higher education as well as reassessing their roles in the regional context conflict with globalization policies (Ender 2004:365).

Aryeetey¹² (cited in Kokutse 2016) has opined that African universities have not been able to take advantage of globalization that saw the expansion of higher education in other parts of the world and the introduction of massive open online courses which could be replicated across the continent. Globalization had opened Africa up to problems including competition for students and faculty from African countries; "we are also competing for resources," (ibid). The year 2018 saw Australia and England enriching their national economies with US\$31b and US\$23b respectively through international student fees (O'Malley 2018:1 and Maslen 2018:1). He added that Africa needs to meet changing trends in higher education across the world, including the way that knowledge is delivered. Accordingly, higher education institutions must develop strategies that do not allow globalization of education to leave them behind (ibid). He stated that: "We need to produce graduates with a more global outlook because there are many benefits to derive from this," and make more attempts to attract international students (op cit.) Ghana had 15 185 foreign students in both public and private tertiary education institutions in the 2012/13 academic year (NAB 2015). Public universities with a total student enrollment of 228 347 accounted for only 3207 foreign students, which represented 21.1 percent of foreign students

¹² The Vice Chancellor of the University of Ghana, Legon, at the opening of the Second Times Higher Education Africa Universities Summit in Accra, Ghana.

while private universities/colleges with 65 890 students had 11 978 foreign students which constituted 78.9 percent of the international students (ibid.). There is a variation in the fees structure for international students in public and private universities in Ghana with most private universities charging lower than the public universities. That is, while public universities international fees ranges between US\$4000.00 to US\$6000.00, most private universities charge between US\$800.00 to US\$3500.00 (see appendix 15 for the schedule of fees in both public and private universities in Ghana).

Thus, foreign students constituted a paltry 1.4 percent of total students in public universities in the 2012/2013 academic year while private universities had 18.2 percent of its students being foreigners in the same period. In terms of employment opportunities, the Strait Times report in the April 2018 issue reveals that in Singapore while 47.4 percent of students from private universities find permanent appointments 6 months after graduation, 78.4 percent of their counterparts from public universities get permanent employment in the same period (Teng 2018). As part of the University of Ghana's efforts to attract more foreign students to raise IGR, five companies have been engaged in Nigeria to recruit more Nigerian students (ibid). Institutions of higher learning should examine the fees they charge to make them competitive as well as put in place strategies to improve governance systems and policies that enable them to partner with institutions across the globe (ibid). Further, internationalization generates potential revenue and costs for universities, particularly engineering cross-border research collaborations (ibid.). For instance, the European Framework Programs for Research provides a strong motivation to increase collaborative research activities across many countries in recent years to generate additional income (ibid).

2.10.2 Internally Generated Revenue and Higher Education in sub-Saharan Africa

Traditionally, higher education funding in Sub-Saharan Africa has been borne by governments, mostly in the payment of salaries of staff, infrastructure, and social needs of students such as halls of residence and other student support services (Barka 2013:9), while donor agencies support scholarships, research and knowledge generation to supplement higher education resource flows (ibid). However, prevailing socio-economic dynamics have compelled governments to implement financial austerity, and in some cases, governments restricting their

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financial commitment to higher education to payment of workers' compensation (Twene 2014: 59), while a small percentage of parents reluctantly pay tuition fees (Barka 2013: 9). The onus lies with higher education managers to design innovative strategies to generate additional income internally so as to be in business (Johnstone 2006: 6). The success of higher education institutions is dependent on their ability to access adequate resources to deliver their core mandate (Ernste 2007). Consequently, efforts are made to intensify their IGR drive to diversify their alternative sources of funding in addition to a call for improved government subvention. Internal revenue generation is therefore a tool for ensuring financial sustainability of public universities by acquiring resources from diverse sources other than the core governmental budgets, in order to contribute to balancing the revenue structure of public universities (Mamdani 2009

; Massy 2009; Gebreyes 2015:47).

The introduction of free senior high schools in Ghana in 2017 has made the opportunities for public universities to explore increased IGR from their traditional academic programs brighter, as the number of eligible tertiary education applicants is likely to double by the year 2020 (Yanka cited in Kokotse 2018). Further, with the understanding that investment in education, improved efficiency, and high productivity correlate positively (Imeokparial and Ediagbonya 2012), demand for higher education training programs and degrees have good prospects. The funding sustainability debate was heightened when pundits raised issues of the real beneficiaries of higher education being the wards of upper and upper-middle income families who are resourced enough to finance their children's education at any level (ibid.). The rich in society are able to finance their wards in first class basic and high school education institutions and are able to secure admission into the country's higher education, therefore public funding of university education would be subsidizing the education of the rich in society. As Franco (1991) has intimated, the performance tests to select applicants for higher education is pro-rich as it correlates positively with the size of family income, making the rich have a competitive edge over the poor.

To give credence to the argument that better educational opportunities favor the rich over the poor in Ghana, Opoku-Asare and Siaw (2015:4) have explained that: "students who have

opportunity to attend one of the top-ranked secondary schools which are staffed with quality teachers and have comparatively better educational facilities tend to perform better than their peers who attend mediocre Senior High Schools that are predominantly located in rural areas in historically disadvantaged regions of the country, which have substandard academic infrastructure or facilities". Internally Generated Revenue is funds realized through the efforts or operations of the organization itself (Ventureline.Com 2012, cited in Onuoha, 2013: 9). It is an income that an organization receives from its normal business activities, usually from the sale of services and goods in the form of cash or cash equivalents (Johnson 1995; Galskiewicz & Marsden 1978). Revenue generation is fundamentally about innovation and risk taking in anticipation of subsequent financial or economic benefits or both (Shattock, 2003; Jongbloed 2003; Williams 2009; Kirby 2002a). Effective revenue mobilization supports the university's core functions of research, teaching, and other operational capacities such as improving internal processes, quality standards, internationalization, and activities to enable higher education to execute its pivotal role in the knowledge society (EUA 2011). Clark (1998) has stated that effective and efficient revenue generation systems support the actualization and expansion of organizational missions by making available the needed resources for achieving new or existing tasks. Public authorities seem to be growing more aware of the need for higher education institutions to develop a reasonably diversified funding structure, attracting funding from other sources including the private sector (EUA 2011; Massy 2009; Gumport & Sporn 1999).

2.10.3 Internally Generated Revenue Diversification (IGR) in Public Universities

The concept of IGR in public universities conveys the central government's intention to share funding responsibilities with university institutions (Onuoha 2013:9). Evidently, it is impossible to deliver effective and efficient higher education at an acceptable standard for less than an annual per-student expenditure of US\$1000 which cannot be borne solely by public funding (Association of African Universities 1997 cited in Munyua et al. 2011). Public universities are therefore expected to explore pragmatic ways of accessing additional revenue internally for use in critical areas that the public grant is not able to cover in a given budget period (ibid: 10). As government sources of revenue confront negative environmental constraints and competing socio-economic demands, the annual commitments to higher educational institutions decline annually (Wangeage-Ouma 2008:168). Public universities' response to this financial challenge is

to seek legitimate initiatives that would complement state funding through revenue diversification to minimize the effect of the shortfalls of state funding (ibid). Such initiatives by the public universities often encounter location, structural, socio-cultural, political and practical limitations that need to be managed (Woods 2008). Risk management therefore constitutes one of the major drivers for income diversification for public universities (Clark 1998; Massy 2009; EUA 2011). The uncertainties associated with fund inflows from government, particularly, during periods of economic decline, motivates the internal revenue mobilization drive of public university management. It is envisaged that internally generated revenue would cushion the funding uncertainty of universities and spread financial risk should state funding not be released or drastically reduced (ibid).

a. Methods of IGR Diversification

The need to expand resources implies that universities are required to undertake a variety of revenue generating activities (Liu 2007; Cloete et al. 2011; EUA 2011) apart from teaching and research that are funded by core funding. Revenue generation diversification activities/actions by public universities are categorized in four domains (Ouma, 2007; Williams, 1992:39), which include:

- Educational services and short-term courses which target not only students seeking degree programs but also students seeking non-degree pre-and post-baccalaureate certification (Hearn 2003; Ouma 2007)
- Research and consultancy services, both basic and applied. Applied and problem-solving research, according to scholars, yields more revenue than basic research (Anderson et al. 2001; Gulbrandsen & Smeby 2005)
- Hiring out of university facilities
- Sale of goods and products of universities through retailing activities. These include patenting and licensing, creating incubators, science parks, investing in equity and others (Mowery et al. 2004; Siegel 2006a).

An important source of IGR for public universities worldwide is an endowment fund which many universities develop to ensure sound and strong fiscal health in the long-run (Baum, Hill, and Schwartz 2018:1). Evidently, many tertiary education institutions especially in the advanced

economies depend on endowment funds to complement their current expenditure, however, the existence of this fund is highly skewed in favor of a few universities with a huge accumulation of these funds that generate additional IGR which constitute a significant proportion of the beneficiary institution's annual expenses (ibid: 3). In the US higher educational institutions, the median endowment fund is US\$12 600 per student per year in post-secondary institutions, with the wealthiest institutions that enroll 10 percent of doctoral students having US\$1.3m per student per year (ibid: 2). Obviously, institutions with large endowment funds, due to their wealth, are criticized for being selective by competing for the most talented students and wealthy students who can afford to pay for campus facilities and utilities. Endowment funds are donations and unspent income from previous surpluses of institutions which are invested in different financial assets for returns, in most cases, with rules from donors on how much of the fund can be spent year (ibid.).

The fund constitutes a major financial security for institutions and offers the opportunity for institutions to search for talent and experts to expand their intellectual stock, including attracting intelligent students with financial challenges by offering to pay for the cost of their higher To establish how public universities were generating additional income education (op cit.). locally to complement the declining public funding in public universities in Ethiopia, Munyua et al. (2011: 15-21) studied revenue diversification efforts in public universities in Ethiopia and explored "the extent to which Ethiopian public universities have instituted revenue diversification systems and strategies". The major finding was that more time was devoted to teaching at the expense of research as most of their internally generated revenue activities centered on teaching activities such as: students' extension programs, students' summer programs, short term training for organizations, consultancy services, maintenance/furniture workshops, farming, leases, rents and registrar services (ibid: 16-18). The 1987 Visitation Committee to the Makerere University in Uganda had recommended commercial farming, a bookshop, a printery, and guest house ventures as income generating activities for the University to improve upon its IGR and reduce costs as a cost-sharing measure in the University (Mamdani 2009:12).

In a similar study on "Revenue Generation Strategies in South Saharan African Universities", Gebreyes (2015:49) has identified the prevailing economic conditions in a country as an important driver for revenue generation, as competing demands on public revenue reduces the state's capacity to satisfy the various sectors of the economy. That is, a decline in government funding has increasingly encouraged universities to engage in a variety of revenue generation activities for acquiring vital resources (Massy 2009; Ouma 2007; Altbach & Teferra 2004; World Bank 1994; EUA 2011). Financial stringency and financial opportunities have been the main motivators of entrepreneurial activity in higher education institutions (Williams 2009). Public universities that are deprived of critical resources will seek new resources (Pfeffer & Salancik, 1978).

b. Strategies for Internally Generated Revenue in Public Universities

Organizations develop goals and objectives to be achieved in a specified period and design actions that will help them achieve the set objectives within the time frame to justify their existence. According to Hamel and Prahalad (1993), such actions extend beyond pursuing opportunities that fit the organization's resources to include creating gaps between organizational ambition and resources. Strategy is the course of action, including specification of resources required to achieve a specific objective (Akinsulire 2008). It could be a long-term decision of the direction an organization intends to pursue and how resources are to be explored and utilized to achieve the set goals as well as to sustain the competitiveness of the organization (Odita and Bello 2015: 61). Strategic decisions and actions may be intended or emergent and are mostly the preserve of top management and require the utilization of the organization's vital resources to attain its set objectives (ibid). Intended strategies are well planned with details of actions to be undertaken vividly explained in the organization's strategic plan, whereas emergent strategies are unplanned actions and decisions taken resulting from unexpected opportunities, challenges, or threats (op cit). According to Adewoye and Fasina (2008:1) public institutions considered to be economically viable put in place strategies or actions to attract adequate internally generated revenue and are less dependent on state allocation of resources. The declining trend of internally generated revenue coupled with reduction in federal state funding in the Oyo state in Nigeria motivated Adewoye and Fasima (2008) to evaluate the assessment, collection and compliance strategies being adopted to attract Internally Generated Revenue (IGR) in Oyo state. The study

was designed to investigate the relationship between these IGR strategies and the income profiles of Oyo state in Nigeria. The results indicated that IGR strategies have a significant effect on the income profile of Oyo state. Consequently, any good policy designed to improve IGR strategies will boost the income profile of the state (ibid: 5).

According to Etzkowitz (2003), revenue generation processes of universities are guided by external factors, specifically laws and policies (Jacob et al. 2003), the surrounding industry (Gulbrandsen & Smeby 2005), regional conditions (Friedman & Silverman 2003), the funding and incentive regimes in the institutional environment and the unique features of the individual university (ibid). The major characteristics of the environment which affect the universities include social, political, economic, and technological trends that surround the university (Gulbrandsen & Smeby 2005). The university's leadership should manage and decisively respond to external dependencies to sustain their survival, minimize the adverse effects of external constraints on internal organizational discretion, and optimize the university's autonomy and discretion (Aldrich & Pfeffer 1976). Successful strategic IGR policies would be influenced by how the universities understand their environment and respond to opportunities as well as the swiftness with which information from the environment is received and processed to make them meaningful and useful (Gumport & Sporn 1999).

c. Differentiation and Diversification of Services or Products

The universities should differentiate and diversify their products and services physically, mentally, and psychologically to manage the needs and expectations of various customers (Huisman 1995; Clark 1979). Vertical and horizontal differentiation responds to the growing differences in student populations, the growing labor market for university-trained graduates, and the development of new disciplines (Clark, 1979). Vertical differentiation focuses on tiers within organizations that manage the demands and expectations of students applying for degree programs and non-degree pre-and post-baccalaureate certification. Horizontal differentiation focuses on introducing different programs in a tier (Clark 1995; Dill 1992b). The differentiation strategy applies different pedagogy or modes of delivery such as distance, summer, weekend, evening programs to expand opportunities to attract new customers and motivate traditional customers to remain loyal to their services (Jongbloed 2003). Further, the universities could

differentiate and diversify their research into basic and applied research in various disciplines such as health, education, agriculture and business with different stakeholders as the targeted beneficiaries and financiers (Dill 1992a:16). The differentiation strategy involves non-academic services and other products such as auxiliary enterprises, real estate, facility rentals, and other university research products (Hearn, 2003).

d. New Organizational Structures for Revenue Generation

Creating academic structures and administrative support offices for the purposes of assigning new functions are essential for successful IGR mobilization, especially in the areas of contract research, contract education and consultancy services (Gumport & Pusser 1995; Guskin 1994a; Leslie 1995). Importantly, the academic structures should consider interdisciplinary and multidisciplinary research centers to coordinate and collaborate with academic departments with the purpose of identifying various stakeholders. Administrative support offices such as technology transfer offices (TTO), intellectual property development, business incubators, research parks, continuing education, donor project coordination offices; including fundraising and alumni affairs offices would facilitate IGR mobilization programs in the universities (Baldini et al., 2006). Such support structures would enhance the effective management and accountability of the funds between the universities and their stakeholders (Clark 1998; Gumport & Sporn 1999; Massy 2003). Further, the academic and administrative structures should be well integrated and coordinated through effective external and internal communication systems to promote the IGR mobilization agenda (Dill 1995b; Galbraith 1977; EUA 2011).

e. Internal Resource Allocation and Human Resource Policies

There is the need to adopt incentive packages such as line item budgeting, performance responsibility budgeting, revenue responsibility budgeting and value responsibility budgeting to motivate and enhance IGR mobilization (Massy 1996). This would require block budgeting to allocate funds to units to manage and deliver their targeted IGR agendas. The universities should be very flexible in managing their human resource and recruit the appropriate academic and administrative personnel to effectively and efficiently manage the IGR structures; including appropriate and competitive salary schemes (OECD 2008; EUA 2011). The incentive packages (financial and non-financial) should also be designed to motivate staff to increase their

commitment and reduce their resistance to the IGR mobilization agenda. Both intrinsic and extrinsic reward systems should be employed based on individual's psychological interests: those who require salary increases should be offered such while those who need employee recognition should be offered this (Mcinnis 2001; Clark 1983; Judge and Robbins 2008).

The various funding mechanisms mentioned above may be used as incentives to foster revenue generation (Massy 1996). In this regard, block budgeting (in which the center allocates general funds to units in blocks and units are responsible for balancing their budgets), modified block budgeting (in which block grants are supplemented by specific revenue-sharing arrangements) and responsibility center budgeting (RCB) are often adopted in enhancing universities' engagement in revenue generation. Universities often engage professionals or train their staff to acquire the needed skills. Public universities will have to be increasingly flexible in the management of their human resources; for example, in the recruitment of academics and administrative support staff, and in the setting of more competitive salaries (OECD 2008; EUA 2011). There is also the need to design a set of incentive mechanisms (financial and nonfinancial) to motivate and increase commitment to minimize the resistance of the academic community to revenue generation. There are two kinds of rewards: intrinsic and extrinsic. Intrinsic rewards stem from a person's own value system - psychological payoffs based on what he or she thinks is important or enjoys doing (e.g. employee recognition programs). Others that may be financial in nature, such as salary increases (Mcinnis 2001; Clark 1983; Judge & Robbins 2008), confer extrinsic rewards.

f. Creating Alliances/Consortia and Co-opting Stakeholders into University Governance

Public universities should establish networks, mergers, and strategic alliances with other institutions in their environments such as industry, government and other institutions (Sporn 2001; Etzkowitz et al., 2000) to facilitate their revenue mobilization operations. The objectives for the proposed alliances should target mobilizing academic staff, researchers and other resources such as capital and equipment from partner institutions for joint education programs and research projects to integrate all activities towards achieving the targeted IGR agenda (OECD 2008). There should be an MOU to bind and direct the alliances to achieve the targeted goals and the mutual interests. The universities should further engage key stakeholders of the

alliance in their governance systems to facilitate and strengthen the alliance. This initiative will improve transparency in the universities and win the confidence of the stakeholders in the university environment such as industry, regional, and local communities and others. Such actions would further enhance the universities' responsiveness to the needs of stakeholders which would create opportunities for improved revenue mobilization (OECD 2008:129-130; Sporn 2001).

2.11 Conclusion

This chapter has discussed the multi-purpose role of higher education in the training of technocrats, bureaucrats and other professionals needed to manage and sustain societies through teaching, research and community service. Funding at one stage was soley borne by the state as higher education was considered a social good. However, as higher education has expanded and became multipurpose, coupled with enrollment massification, its cost has also expanded, and it has become impossible for the state alone to fund the ever-increasing expenditures, amidst other equally important competing social and economic pressures. The need for cost sharing became imperative especially as private benefits from higher education are deemed as higher than social benefits. Different economic blocs around the globe therefore designed different funding models appropriate to their prevailing socio-economic circumstances to finance higher education which culminated in the introduction of tuition fees payment by beneficiary students and their families, soliciting for grants and donations from philanthropists and other donors, as well as entrepreneurial ventures by higher education institutions to supplement grants given by the state.

The chapter has expatiated on the relevance of higher education to socio-economic development in Africa which justified sole public funding in the first instance. However, increasing socioeconomic pressures coupled with international donors' directives through structural adjustment programs in return for donor funds for debt management, has compelled governments to refocus their attention on the funding basic and secondary education which yields higher social benefits than higher education. The reversal in state funding therefore has created a funding gap for higher education institutions which has resulted in poor quality products, reduced access especially for applicants from low income families, low and poor-quality research output and other challenges. Accountability, probity and faculty scholarship have been discussed in relation to higher educational institutional efforts to attract funding from the state and other philanthropists' demands for justification for such funding. Alternative funding sources for higher education to raise additional revenue to make higher education efficient in Africa has been assessed. The need for internally generated revenue (IGR) as a major source of income for higher education institutions has also been discussed and it has been linked to globalization as a motivator for the reduction in public funding and a vital driver for internally generated revenue, and its effects on faculty scholarship have been highlighted. The concluding part of the chapter discusses IGR diversification and strategies for diversification to ensure efficiency and minimize the funding gap.

CHAPTER THREE THEORETICAL FRAMEWORK

3.1 Introduction

The myriad of challenges facing university education resulting from ever growing youth populations and massification of education, coupled with cutbacks in state funding especially in developing countries, have caused scholars and researchers to engage in academic discourse aimed at finding a workable solution to these problems. The desire to move away from government grants as the major funding source has motivated higher education institutions to extensively diversify their revenue generation sources for additional and alternative income to minimize the effects of ever declining public grants on the plans and programs of public higher education institutions (Weiler 2000). Svensson, et al. (2010:1) have observed that the activities of modern universities are gradually and radically being tailored along the lines of the operational systems of corporate organizations with consequences for managerial and funding structures. "Universities are now in the business of selling intangible goods, not least of all the ineffable product of 'employability'" (Chertkovskaya et al. 2013).

The higher education funding controversies have led scholars and stakeholders to propose many ideas and theories aimed at designing the most appropriate funding model for higher education in different environments. The theoretical framework for the current study will be based on neoliberal ideology of market orientation of funding higher education, the Human Capital Theory approach to public resource support, the New Public-Management Paradigm of ensuring efficiency and value for money in higher education system, and Resource Dependence Theory. These theories explain the relationship, rationale and principles behind state reduction in public university funding and offer the opportunity to understand and re-examine the current funding regimes in public universities in Ghana (Silvermann 2000). The understanding of the funding regimes provides the framework for designing research questions and questionnaires for the fieldwork to gather the necessary data required to explain the research questions.

3.2 Neo-Liberal Theory: General Perspectives

Neo-liberalism is an ideological system that holds the 'market' as sacred and emerged from the era of a hegemonic state where social democratic politics prevailed and were dominated by

welfarist, statist and Keynesian thoughts (Mudge 2008:706). According to Campbell and Pedersen (2001 cited in Mudge 2008: 705), neo-liberalism represents different sets of institutions that thrive on ideas, and social and economic policies that define ways of organizing political and economic activity. Neo-liberal ideals project the market as the sole source and arbiter of rights, rewards and freedoms of individuals in society which require the state playing a facilitating role through policy interventions such as liberalization, deregulation, privatization, de-politisization and monetarism in economic management (ibid). Thus, the state disengages itself from the business of state ownership and encourages uninterrupted competition without politically guided or controlled economic management (ibid: 704). The term was coined by the German scholar, Alexander Rustow in 1938 and defined as involving the priority of the price mechanism, free enterprise, the system of competition and a strong and impartial state (Mirowski and Plehwe 2009:12-14). It adopts free-market principles towards solving economic challenges which eliminate barriers to international capital mobility, rather than indicative planning system (Mudge 2008:706). The master architects who punted the concept for international acceptance were the American government and the world's rich core countries, the Organization for Economic Cooperation and Development (OECD), the European Union, the International Monetary Fund (IMF) and the World Bank (Massey et al., 2006; Dobbin et al., 2007).

The concept reached full impact when prevailing economic crises weakened governments as the Organization of the Petroleum Exporting Countries (OPEC) reduced their oil output to compel a fivefold oil-price hike in the 1970s (Prasad 2006). According to Peters and Marshall (1996), nations, especially developing nations characterized by high indebtedness as a result of the decline in world market prices for their main exports in the 1970s, were compelled to implement Structural Adjustment Programs with the economic downturn in the 1980s, referred to as 'the Washington Concensus'. Countries in debt were made to reduce spending, privatize industry and services to cheapen labor, and to open up markets to multinational companies, and to relax controls on capital movement. The Structural Adjustment Program was a major tool for implementing neo-liberal ideology and championed by the same international bodies.

The purpose of the Structural Adjustment Program was to restore the conditions that would enable countries to recover rates of economic growth that would allow them to increase the quality of life of their populations, to reduce poverty and to sustain development (Reimer 1997:4). Structural adjustment policies required participating governments to reduce spending by sharply reducing budget deficits to lower inflation (Kraus 1991:30). It was envisaged that these measures would help governments to reduce their balance of payments deficits and create conditions for growth, and countries which complied with these directives were granted 'growth-oriented loans'.

3.2.1 Underlying Principles and Assumptions of Neo-Liberal Theory

The Neo-Liberal theory hinges on the following listed principles as enunciated by Mudge (2008:703-705):

- Unfettered focus on, and elevation of the market as the main arbiter of human freedom
- Unadulterated state policy reforms emphasizing liberalization, deregulation, privatization, de-politicization, and monetarism to promote competition as a solution to economic problems
- Promotion of competition in resource management among the private sector while the state is freed from meddling in the business of resources ownership
- Desacralized institutions, such as education and health care, previously protected by the state and expose them to private market competition
- Orientation towards reduction in state public expenditure
- Tuition-free higher education should be based on the basic philosophy of high social rate of returns associated with higher education (Johnstone 2003: 1).

The neo-liberal principles assume that citizens often oppose state-guaranteed rights for social goods such as education, health, and other general welfare facilities (Chubb and Moe 1990; Tooley 2000). The average citizen is often perceived as an economic maximizer who is guided by personal interest and branded as a 'consumer citizen' who is well-informed and capable of making good market-led choices and ready to bear the consequences of choices personally made (ibid). The state should therefore act as a facilitator to direct and assist the consumer and the market-led citizen and citizens are self-centered individuals who care for themselves (Rutherford 2005). Education and health are treated as services and products like any other, to be traded in at the marketplace. Most countries therefore corporatized and marketized public university

education based on neo-liberal principles that the market could replace the democratic state (Lynch 2006: 3).

3.2.2 Neo-Liberal Theory and Higher Education

The focus of the neo-liberal/market orientation philosophy in education emphasizes the central government shifting part of higher education costs to beneficiary students and their parents, especially, those who are resourced enough to pay part of the cost of their higher education (Johnstone 2003:3). Elaborating on neo-liberalism and its tenets of market ideology, Johnstone (ibid) has stressed that beneficiaries of higher education should contribute to their education since they enjoy higher private benefits. A means-tested free-tuition system will then be designed for potential higher education students from poor family backgrounds who cannot access higher education due to the cost of tuition fees (ibid). That is, while higher education students from middle and upper income families pay tuition fees, grants and loan systems and scholarships will be developed to finance individuals from underprivileged families to ensure equity (op cit.). Neo- liberalism and its marketization policies are aimed at introducing competition in higher education to increase productivity, accountability and control. It was envisaged that increased competition will mean improved quality as opined by Marginson (1997: 5). Further, marketization exposes higher education to internationalization and exchange of ideas, and saves the public scarce financial resources which are deployed to other social services to improve the lot of the disadvantaged in society (ibid). Again, competition will guarantee consumer sovereignty for better efficiency and quality higher education (op cit.).

Proponents of the model further argue that the effect of the tuition fees on students from poor families could be offset by affirmative action policies where appropriate financial aid schemes could be designed to support potential students from poor families (Weiler 2000:336). The consensus is that the justification for tuition fees payment in higher education should be dependent on the adequacy and effectiveness of financial aid schemes to support and compensate for the adverse effects of the market orientation model on students from disadvantaged groups (Stumpf et al. 2008:34). It is envisaged that the market model cushioned with a genuine change in policy that empowers higher education with greater autonomy would enable higher education to compete freely and effectively in the market for good students, good faculty as well as attract good research funds (Weiler 2000: 338). Again, the market orientation supported with greater

autonomy from the state to higher education institutions could guarantee proper accountability of higher education to society (ibid).

Prior to the advent of neo-liberalism with its market orientation legacy, society perceived higher education as a public good that served the public interest as custodians and creators of knowledge required for societal development and merited total state sponsorship (Lynch 2006:1). Higher education is noted for promoting free exchange of ideas in democratic societies and works to project and protect freedom of thought and dissent from the status-quo. It is therefore seen as a model for institutions whose research outputs are very credible and critical for socio-economic development (Fuente 2002; Lieberwitz 2004). The relevance of higher education to socio-economic development notwithstanding, recent developments have transformed higher education institutions into very strong and powerful consumer-oriented organizations with their public good status challenged (Rutherford 2005:1).

The aftermath of the change in the status of higher education as a public good has been declining state funding for public higher education institutions resulting in unprecedented preoccupation of the institutions with searching for additional and alternative funding sources and a move away from the state as the principal financier (Weiler 2000: 335). Thus, higher education institutions have extended their revenue search to seeking support from philanthropists through the establishment of foundations, contract research and training programs for clients other than their formal students, establishment of endowment funds for special projects, continuing education programs and others (ibid). Ironically, most of the externally sourced funds are granted for a specified period after which they cease, creating funding challenges for very promising programs and leaving them destitute (Bozzoli 2015:5; Weiler 2000: 335). Most of these external financiers dictate their terms and conditions which may be inimical to higher education institutions' missions and intellectual profile. Thus, sourcing for external resource support demands compromises between the institutions' priorities and that of the funding agency which may not promote the interests of higher education (Weiler 2000: 336).

Massy (1994: 32) has observed that "attempt to balance market forces with the need for institutional coherence creates the problem of fragmentation of faculty allegiance between

promising funding opportunities and institutional loyalties and is becoming a serious problem for a growing number of institutions of higher education". The challenges in accessing and sustaining external funding has necessitated the introduction of charging users' tuition fees for patronizing higher education. Arguably, to attract more clients who could send their money to rival institutions, higher education institutions focus more, and are very responsive to, the interests and satisfaction of the fee-paying students who contribute significantly to the resource base of the institution (Weiler 2000: 336). Similarly, potential students and their parents are very critical of and sensitive to sending their resources to higher education institutions where value for money is assured (ibid). This implies that the universities must manage their institutional practices to attract a student clientele with implications for the quality of delivery and accessibility of university education to prospective students from poor families which this study seeks to unravel.

3.2.3 Critique of the Neo-Liberal Theory in Higher Education

Critics of the neo-liberal theory have advocated for tuition-free higher education, tracing its theoretical underpinning to Marxist ideology. Advocates of this model argue that the introduction of tuition fees discriminates against potential students from poor families who cannot afford to pay the required fees and deprives them of access to higher education (Weiler 2000: 336)). Stiglitz¹³ (cited in Olssen and Peters 2005: 330) has lamented over the policy decisions of the International Monetary Fund (IMF) as 'a curious blend of ideology and bad economics', since the IMF's structural adjustment policies imposed on developing countries have led to hunger and riots in many countries and precipitated crises that have led to greater poverty and international inequality. The neo-liberal theory treats university education as just another service to be delivered to the market for those who can afford it on the basis that it provides people with choices and the freedoms to buy what university education they like in some new markets (Lynch 2006:3). However, the theory does not recognize that in economically unequal societies, only those with sufficient resources can make choices and the poor have no choices at all (Reay & Lucey 2003). However, the desire of the people may not be for different options of a university but rather having access to an affordable, high standard university

¹³ Former economist of the World Bank.

education as exists in the western developed countries (Lynch 2006:4). The neo-liberal model does not consider the role of the state as an indispensable agent that can guarantee individuals the right to education, and without it rights become contingent on the ability to pay; further differentiating between democratic accountability and market accountability (Lynch 2006:4).

Commenting on the tuition-free Marxist orientation of higher education, Johnstone (2003: 1) has posited that the basic principle of this philosophy is explained by the high social rate of returns associated with higher education. Further, tuition-free higher education can lead to equity for students from poor family backgrounds and enable families with low incomes to manage the cost of their wards' maintenance. Under the neo-liberal market orientation and commercialization, universities are being compelled to train and produce commercially-inclined graduates instead of public-interest professionals required for societal development (Hanlon 2000). The danger therefore, is weakening public interest values of university graduates who will require such values to provide services on a universal basis in a welfare-oriented democratic states (ibid). The neo-liberal (marketization) concept is indifferent to the vulnerable in society and breeds cultures of insecurity, induces anxiety, and competition (ibid.).

Marketization has resulted in the creation of global league tables ranking universities (ranking processes far from systematic and scientific) and universities being controlled by commercial operations with the universities having no control (Tight 2000; Turner 2005). These league tables do not consider the core values essential for university operations, such as quality teaching, research, and outreach (Taylor 2001). The league tables focus on the universities training and developing a skilled work force for the economy, without reference to the universities developing the civil, political, social or cultural institutions of society locally or globally, and thus, neglecting the social sciences, arts, humanities (Lynch 2006:6). Notably, higher education institutions are being compelled by the marketization and commercialization principles to operate as business entities instead of centers of academic excellence and are assigned productivity targets which should be achieved at all cost, thus, diverting their focus and allegiance from academic excellence to operational targets and measurements (Doring 2002: 140). Performance indicators are rated more highly than trust, professional integrity and peer regulation, leading to a feeling of "*personal inauthenticity and a culture of compliance*", as

individual works are highly monitored and externally controlled as a means of assessment criteria irrespective of how irrelevant they might be (Cooper 2000 cited in Rutherford 2005). The market paradigm affects students as well, as their lives are dictated by economic self-interest and qualification attainment. Both staff and student commitment to service delivery toward human welfare is highly reduced, with universities operating as entrepreneurs, with much interest in competitive business-oriented corporations (Elton 2000). As the state attempts to extricate itself from funding public higher education, public universities pursue industry-research agendas where adequate funding could be accessed to meet their responsibilities. As public institutions, the interests and values of the for-profit sector should not determine their research agendas, since the tendency for university interests to be dominated by powerful vested interests at the expense of public interest functions, cannot be underestimated (Lynch 2006:7). Further, the universities' trademark of independence of thought will be in danger (Lieberwitz 2004) and compromise public trust in their scholarly integrity of university teaching and research (Lynch 2006: 8). Again, marketisation of universities is gradually eroding critique and creativity. With overemphasis on contract research no effort is made to publish articles when the contract is ongoing, creating layers of silencing and exploitation (ibid).

According to Hejwosz (2010:3) the introduction of universities to the world of business has created problems of confidentiality and conflicts of interest in research as financiers of scientific research prevent disclosure of reports of works-in-progress and will not permit discussion of such reports at scientific conferences. Some professors are made to sign research contracts with their sponsors which do not permit colleague professors or students access to laboratories being used for some studies. This slow-down of the information flow and exchange of ideas for research activities, means some research reports have been unduly delayed for six months or more due to directives from the sponsors (ibid). Research reports are released with specific directives from the financiers to keep them away from other scientists working for competing companies (op cit.). Bok¹⁴ (cited in Hejwosz 2010:4) notes: "we are further and further from the ideal, in which groups of scientists would share their observations and materials for the sake of science." Universities produce academic knowledge considered to be a public good but

¹⁴ Former President of Harvard University.

marketization has presented such knowledge produced as private good for those who either study or conduct research (ibid).

The position of the arts, humanities, and the critical social sciences are highly weakened through the market-orientation model since teaching and research in these fields do not service the forprofit service sector directly (Webster 2004). However, these disciplines train quality human resources for the public services and civil society which are not profit oriented. The closure of the Centre for Contemporary Cultural Studies and Department of Sociology in the University of Birmingham in 2002 testifies to the threat posed to these disciplines which are noted for critical thinking, with the introduction of the marketized higher education system (ibid). Without state investments such fields cannot flourish, as no equivalent alternative to government funding will be available and such critical disciplines in higher education in universities will over time lead to a concentration of resources in public universities outside of public control as public universities are finding it increasingly difficult to attract successful researchers and academics; they cannot offer the same salaries as private institutions (Smallwood 2001).

Public universities were established to promote independence of intellectual thought, to enable scholars to work outside the control of powerful vested interest groups, and it is publicly assumed that academic independence and objectivity will guarantee the public interest role of public universities (Lynch 2006: 11). It is envisaged that academic knowledge will be for the betterment of humanity in its entirety to justify the public trust and public sponsorship (Blumenthal 2002). Thus, higher education is designed to generate knowledge to service all segments of society; the weak, vulnerable, and the most powerful economic interests, it is enjoined to disseminate information, as well as support and bring hope to the work of the public sector, civil and voluntary organizations, and other sectors of the economy, both locally and globally (Lynch 2006: 12). The neo-liberal theory with its market orientation justifies the rationale for the reduction of public funding and introduction of tuition fees and other commercial engagements in public universities. Critics have also delved into the dangers posed to society in general by corporatizing higher education. The theory will be useful in explaining the research questions on staff and student experiences with the state funding decline and how

IGR funds are spent in public universities in Ghana. As staff and students play a vital role in the universities' mandate delivery, their actions, perceptions and feelings will be greatly influenced by how the universities are managed: financially and managerially, which will further affect the success or failure of the universities in their mandate delivery as the study seeks to explore.

3.3 New Public-Management Paradigm (NPM)

3.3.1 Introduction

The NPM also referred to as managerialism, emerged in the 1980s as a new philosophy that emphasized new effective and efficient ways to study, manage, and improve upon public sector organizations, different from public administration (Gow and Dufour 1998:578). The paradigm focus is on two fundamental ideals in managing the public sector, namely: i. *the separation of policy formulation from operations; and ii. The relevance of management, inspired by private sector management* (Charih and Rouilland 1997:27). The dissatisfaction with the public sector financial performance in the 1980s coupled with extreme financial pressures on states during the economic recession of the early 1990s have compelled most governments to embrace commercialization and free market practices in public sector operations as pertain to private enterprises (Zumata 2000: 58; Hood 1991).

The desire to draw private sector management practices and techniques into the traditional public administration was informed by the economic and fiscal crises developing nations, experienced in the 1970s and 1980s which necessitated the need for efficiency and how to reduce the cost of public service delivery (Larbi 1999: 1). The call for creation of autonomous agencies and devolution of budgets and financial controls in the public sector had become eminent as well as the use of markets and competition in the service delivery (ibid). Obviously, the competence of the state to effectively deal with the crisis and directly deliver services had been questioned and the need for a change to improve upon the way government was managed and deliver services by focusing on efficiency, economy and effectiveness had become necessary (Metcalfe and Richards 1990 cited in Larbi 1999: 31).

A new managerial paradigm is adopted where there is an increasing use of the 'private' sector methods of operation to deliver public services including education, as a way of ensuring accountability and efficiency in the public sector (Ball 2004). The desire to search for new effective and efficient ways of doing government business necessitated a new thinking beyond the known traditional public-administration paradigm. This old paradigm was considered very cumbersome, bureaucratic, ineffective, unresponsive to the needs of the public, and above all unproductive (Behn 1995). The argument, however, was that the citizenry could no longer tolerate non-performing and inefficient government and hence the need for new ways of doing government business that is result-oriented. The New Public-Management (NPM) paradigm was therefore embarked upon as a panacea for the weaknesses of the traditional public administration system (Stoker 2006).

In describing the NPM practice, Osborne and Gaebler (1992) listed the modus-operandi of the NPM as *privatization, contracting out, decentralization, merit pay, partnerships, management by results, and customer orientation.* The new paradigm stresses values and administrative culture without which its implementation will not yield the desired results. That is, the successful implementation of the NPM, to a large extent, requires cultural and behavioral change in the way government transacts its core business; a shift from bureaucratic to entrepreneurial government (Moe 1994:111). The prescribed values of the new paradigm are effectiveness, efficiency, economy, service, dynamism and flexibility (Dwivedi and Gow 1999). The NPM was targeted at minimizing government growth, encouraging and increasing privatization, production/public services automation and a push for an international public sector agenda (Hood 1991:3-5). The main features of the NPM are as follows (Hood 1991:3-5; Larbi 199 18-19 and Ayee 2005:12):

- Hands-on professional management
- Well defined standards and performance measurement indicators
- Greater emphasis on output controls
- Breakdown of public sector into smaller units
- Encouraging greater competition in the public sector
- Introduction of private sector mode of management practice
- Greater discipline and frugal use of resources.
- Organizational unbundling where the tall hierarchies of traditional bureaucracies in institutions were replaced with responsive structures
- Downsizing the public sector for a "leaner" and "meaner" institutions by contracting out state activities to private agencies
- Devolving budgets and financial controls by establishing executive agencies and allowing manager to control budgets and held accountable for their actions
- The introduction of user-fees or charges in the provision of public services which is the offshoot of the structural adjustments programmes in lieu of privatization

3.3.2 New Public-Management Paradigm and Higher Education

In his assessment of the new managerial paradigm sweeping across the world, Ball (2004) identified privatization as an important feature, with two components, namely, exogenous and endogenous privatization. The former (exogenous privatization) is the involvement of the private sector in providing public services. His concern was with the endogenous privatization where the private sector profit motive practices and values are introduced into the public-sector services including schools and universities, without assessing the cost to society, which Rikowski called capitalization (Rikowski 2003). With the emerging new trend of managerialism into public higher education institutions, state financial support has declined while higher education management is encouraged to be self-dependent, financially sustainable, and become more competitive (Lawrence and Sharma 2002: 661). Modernization of higher education institutions hinges on five pillars, namely: sustainability, accessibility and equity, quality, diversity, governance and efficiency (Bishop¹⁵ 2007: 1). The leadership of higher education institutions should therefore be strategic thinkers with high level management skills and with a vision for their institutions that supports the nation's economic and social interests (ibid: 2). Invariably, policymakers expect higher education management to have competing goals aimed at enrolling a more diverse student population, ensuring high academic standards, with adequate job market preparation for students, and producing more relevant research (Zumata 2000: 57). Ironically, there is no growth, but often decline in the financial support from the state to these public higher education institutions (ibid).

¹⁵ Then the Federal Minister of Education, Science and Training in Australia.

Adopting the new paradigm has introduced 'the market' as a new player in the operations of higher education institutions, thereby, enlarging the levels of interaction and accountability in higher education institutions. The players now include the university, the state, and the market (Weiler 2000: 333); the old system involved the university and the state where the state provided 100 percent funding for public universities (ibid). The introduction of the 'third player' (market) meant universities should adopt business-like accountability and results-oriented management styles. Public university management, therefore, must explore a range of income generation activities to support their operations and reduce their dependence on state funding, while ensuring efficiency and financial self-sufficiency in their operations (Hodson and Thomas 2001). Increasing tuition fees, sale of intellectual property, and pursuing of grants and donations are part of the available options for universities to mobilize the needed financial resources (Zumata 2000: 58). Universities, therefore, must compete for students at both local and international levels and thus metamorphose into international institutions designing and offering global courses (Lawrence and Sharma 2002: 662). Schools and universities are therefore institutionally rearranged into commodity producing enterprises and become commoditized (Rushkoff 2005), and the student has become an active consumer but a passive learner (Cloete et al. 2001). Academic labor is valued in terms of its contribution to the resources that flow directly or indirectly and not the progress of the student clientele or citizen with culturally valued knowledge (Willmott 1995:1002).

According to Rigby (1995), most universities have focused on income generation projects like intellectual capital promotion and productivity enhancement activities to reduce their dependence on public funds. The work of the academics is commoditized and subjected to managerial controls (Willmott 1995). Thus, universities are now market places with students perceived as customers and education has become a tradable product that can be exchanged for a job (Craig et al. 1999; Hodson & Thomas 2001) instead of a liberal education that prepares students for life (Willmott 1995). University education is also a social good which is life-long and durable and promotes learning and gives an understanding of and insights into human activities, as well as giving meaning to how the world operates to make the world worth living in (Willmott 1995; Craig et al. 1999). Instead, with the inception of the market as a major player, university education is treated as private good and some students are now seen as fee-paying customers

who shop around for academic programs their money can procure (Baldwin & James 2000; Hyland 2000). The goals of educators then become attractive when students opt for their courses and are retained, and, faculty are directly remunerated in accordance with and in proportion to the number of students attracted and retained (Franz 1998). Universities now function in an environment where students have become customers with purchasing power for procuring educational products in a well-established university market (Craig et al. 1999; Hodson and Thomas 2001). As a way of promoting student interests as customers, students evaluate their lecturers in a semester of pursuing a course. This is a way of measuring academic staff accountability and maintaining quality, as well as a managerial tool to discipline academics (Singh 2001). With this development, student 'entertainers' are deemed good teachers where students are offered experiences catering for their tastes and obtain high marks to motivate them to patronize their higher educational products at the expense of challenging and unpleasant learning settings (Lawrence and Sharma 2002: 669). The institutionalized evaluation of academics by students imposes the measurer's concept of performance contrary to the *"subjective and self-developmental informal feedback of the professional"* (ibid).

3.3.3 A Critique of the New Public Management (NPM) Paradigm

The advocates of the New Public Management reforms argue that people in charge of public service delivery should be proactive managers capable of using their discretion in decisions which make 'hands-on professional management possible' (Falconer 1997 in Kalimullah, Alam and Nour 2012:12). However, the use of personal discretion is not permissible under the traditional public administration regime which insist on the adoption of established rules and regulations in the implementation of government policies, without any direct personal responsibility in service delivery outcome (Kalimullah, Alam and Nour 2012:12). The new management reforms further introduce performance measurement which makes possible the evaluation of public office holders' performance so as to encourage them to be disciplined and focused on their assigned responsibilities for the effective and efficient discharge of public service (ibid.). Obviously, the new public management reforms introduce competition in the delivery of public services as is inherent in the private sector mode of operations ,which empowers and motivates the public sector office holders to design better strategies for providing public goods for the citizenry. Without competition in the traditional public sector mode of

delivery, there is no pressure for cost effectiveness and improvement in productivity, and therefore, there is sub-optimal allocation of scarce resources (ibid.:15).

The positive outcome of the New Public Management practices notwithstanding, critics have observed some short-comings of the new management reform. Commenting on the New Public Management Paradigm (NPM), Schick (1996 in Zia and Khan n.d.:435) criticized the NPM for not appreciating the differences between public and private management. Essentially, the new paradigm operational norms constrict the roles and responsibilities of the public sector and reduces its collective value and interest despite its strong influence in society (ibid.). Metcalfe (in Zia and Khan n.d.:435) espoused that public management tasks embrace inter-organizational cooperation and coordination among various public institutions which require institutional networks of businesses, independent lobbying organizations, voluntary institutions and not-forprofit organizations for its success. However, the modus-operandi of the private sector is focused on competition among organizations for survival which is at variance with the operational norms in the public sector. The total application of the private sector operational ethics in the public sector would make the public sector lose its values and the communal essence of its existence. Invariably, contracting out implies that there exists very effective and efficient market and private sector capacity to take advantage of the activities being given out, which is not the case in most developing economies, and essential services such as health care and education are likely to be adversely affected (Ayee 2005:12). According to Aryee (2005:12) contracting out requires the capacity to identify and manage a network of contracts, developing monitoring and reporting systems as well as effective and efficient governance, and an institutional environment, which in most developing countries is not tenable. Staff of the units being contracted out are likely to lose their positions and competences, and thus become demotivated which makes them resistant to change.

Also, the NPM has negated the established cherished values and ethics of the civil/ public servant and weakened the values which serve as building blocks such as fairness, equality, probity, impartiality and other such values upon which public administration is deeply based (Zia and Khan n.d.:435). The cause is that the NPM's overriding principles are based on output controls and discretionary management as pertains to the private sector contrary to the established rule-based, open processes and procedures in the public service (Schick 1996 in Zia

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and Khan n.d.:436). Obviously, any reduced values and ethical standards in the public service which attract public outcry and concerns could be managed through government policy initiatives and interventions without necessarily importing the private sector operations into the public sector via NPMP (Zia and Khan n.d.:436). DeLeon and Green (2001 in Zia and Khan n.d.:436) have intimated that relaxing established rules to project flexibility could introduce administrative corruption as the private sector management practices may not be easily applicable in the public sector settings and the system may be abused for personal interests. Importantly, the overriding effects of external political influence in the internal management of the public service is very real and political compromises may impinge on the internal operations of public management, and actual accountability may be directed towards political power brokers instead of the institutional management (Zia and Khan n.d.:436). The consequences would be ineffective application of performance measurement and accountability as tools for output control in the public sector. Clearly, every devolution of authority and control should be accompanied by corresponding change in the power structure to have the required impact. However, political appointees and top bureaucrats have the desire to subvert or erode the autonomy at the center thus minimizing the impact of the reforms (Walsh 1995 in Larbi 1999:21)

Obviously the NPM is geared towards undertaking managerial reforms with the sole purpose of ensuring efficiency and economy under pre-determined policy directives, and resource allocation without the involvement of managers and front-line workers that direct the institutions' operations in the policy processes (ibid.437). Thus, the NPM pursues the achievement of managerial reforms without any contribution to the strategic purpose of the institution by those who should deliver the results (Osborne and Gaebler in Zia and Khan n. d.:437). As espoused by Osborne and Gaebler: *"those who steer the boat have far more power over its destination than those who row it"* (Zia and Khan n.d.:437). Ironically, the content and focus of the policy directives are concerned with 'how to row the boat' effectively and efficiently (service delivery) and not on 'steering the boat' (policy decisions).

An important observation of the management reforms is the visible neglect of effective pay and incentive packages which is vital for sustainable capacity building. This impacts negatively on the morale and discipline in the public service, which engender unethical conduct such as bribery

and corruption, with resultant service delivery deteriorating in most developing countries (Bangura and Larbi 2006 in Ayee 2015:9). Finally, though the NPM reforms are ongoing, they have not yielded the expected positive results of transforming the public sector as the sector has not rid itself of corruption, inefficiencies, and the poor management and implementation of public policies and programmes (Owusu and Ohemeng 2012 in Ayee 2015:10). Some scholars have therefore recommended "developmental public service" to develop the capacities of the public sector for effective delivery of the regulatory, administrative, technical and extractive roles of the state (Ayee 2013 in Ayee 2015: 10).

3.3.4 Effects of the New Public-Management Paradigm on Higher Education

The goal of contemporary higher education has been sharply influenced by corporate operational ethics that has adversely affected the state's financial responsibility to higher education (Beverungen et al. 2008; Svensson et al. 2010). There is an increasing intensification of academic labor as a way of raising adequate funding, which manifests itself in extended work-loads, longer working hours, inconsiderate employment contracts and management control systems (Archer 2008; Clark et al. 2012). The personal and professional lives of staff are highly influenced by the infiltration of the corporate imperatives into the organizational structure of higher education which has led to increasing stress, job insecurity, diminishing self-confidence, alienation, feelings of guilt and other negative emotions (Ogbonna and Harris 2004). The impact of marketization on higher education on the quality of scholarship has been very negative as academics "*play the publication game*" at the expense of genuine critical scholarly work (Butler and Spoelstra 2014). The "publication game" is dominated by "*a regime based on journal rankings, citation rates, impact factors and other quantitative criteria use to assess and reward research output instead of the value of scientific philosophical knowledge*" (Lucas 2006).

In conclusion, the paradigm explains the effects of marketization of higher education on the professional practice of academics as well as student attitudes towards and perceptions on pursuing higher education. This model will support the neo-liberal theory in addressing the research questions on the current experiences of staff and students on state funding of public universities, as well as the IGR expenditure patterns in public universities in Ghana. Staff and student reactions, feelings and responses to the new private sector management practices adopted

in the universities to manage the funding cuts will reflect in their answers on the questionnaires which will be useful for answering research questions one and five.

3.4 Human Capital Theory

3.4.1 Introduction

The concept of human capital and investment is associated with the importance of education at the commencement of economic theory in the work of William Petty and Adam Smith (Kucharcikova 2011:60). The theoretical basis of human capital theory was developed by Becker (1993), with the assertion that the principle behind improving the value and efficiency of workers is to spend resources now but with future returns (ibid). Kucharcikova (2011:68) has opined that: "Knowledge-based society requires more expertise and therefore promotes long-life education, improvement of scientific and research activities for continuous self-education and improving the quality of work skills and habits that bring a positive effect on economic performance" According to Armstrong (2006:4, 9) skills and knowledge exhibited by individual workers at the place of work is human capital and effort should be made to maintain it for effective use over time. Schiller (2008:2) has explained human capital as the technical skills and knowledge acquired by individuals through investment in education which yields higher earnings to the individual and societal benefits in the form of spillovers to others in society. Human capital in general terms is the investment people make in themselves to enhance their economic productivity, and the theoretical framework for the total adoption of education and development policies is represented by the human capital theory (Olaniyan and Okemakinde 2008: 479). The improved productivity at the micro and macro levels resulting from investment in education is the basis for public expenditure on education worldwide (Psacharopoulos and Woodhall 1997).

3.4.2 The Underlying Principles and Assumptions

The relevance of human capital emanates from the belief that the role of workers in production is equated to the functions of forces of production including machinery (Johnson 1995: 133), where the productivity of the educated worker is perceived to be a means to the end of national economic growth and development (Little 1999:17). According to the Organization of Economic Cooperation and Development (OECD), human capital is the lifetime acquisition of knowledge which is applicable and useful to produce goods and services; and the generation of ideas in

diverse contexts makes human worth comparable to various production criteria (Spring 1998: 169). Consequently, it is deemed crucial to invest in higher education which can provide essential knowledge, skills, and abilities the same way as is expected of investment in facilities and equipment to engender enhanced productivity (Oliver 2004: 121). As developing countries wage incessant wars against poverty, economic development is critical and human capital education theory which is the supplier of the *latent talents and intellectual abilities* of workers is an indispensable tool for success (Oliver 2004: 120).

Johnson (1995:133) has explained that the concept of human capital is premised on the belief that a worker's function in the production process could be equated to the role of machines and other factors of production. Investment in education/schools is targeted at providing the requisite knowledge, skills and abilities of workers, the same way investment is made in facilities and equipment for the purposes of enhancing productivity (ibid). By investing in themselves, people can enlarge their range of choices to improve their welfare (Shultz 1961: 314). Explaining the human capital theory, Shultz (1981 cited in Kucharcikova 2011: 68) has stated that there is the need to invest through education, in both innate and acquired skills of individuals to expand human capital, alongside investment in other forms of capital and technology in the long term for economic growth and development.

There have been two schools of thought arguing about the substance of human capital. The first school differentiates between acquired capacities of individuals as the human capital and is different from the human beings themselves. The second school argues that human beings themselves are capital and that human behavior is based on the economic self-interest of individuals operating within freely competitive markets (Almendarez 2010: 2). At any rate, both schools have people as the basis of the theory because of the innate capabilities inherent in them. Acemoglu and Autor (2011: 6) have explained that due to the innate capabilities made possible by a degree of inherent intelligent quotient (IQ) which is genetic in origin, there is likely to be heterogeneity in human capital even when individuals have access to the same investment opportunities and the same economic constraints. The assumptions are:

- Formal education is highly instrumental and necessary to improve the productive capacity of a population, that is, an educated population is a productive population (Almendarez 2010)
- Investment in human capital will lead to greater economic output (ibid)
- National differences in rates of economic growth worldwide are based on the varying degrees of educational investment (Karabel and Halsey 1977:308)
- Higher earnings reflect greater productivity
- Investment in education is driven by the economic concept of cost-benefit analysis (Woodhall 1987:3)
- That perfect competition prevails in labor markets to facilitate greater earnings for greater productivity (Karabel and Halsey 1977:14).

3.4.3 Human Capital Theory and Education

In his explanation of the human capital theory, Almendarez (2010) has stated that education is instrumental in improving human capacity and productivity. That increased productivity and efficiency of workers results from an improved human cognitive stock of economically productive human capabilities or innate abilities of individuals. According to Woodhall (1997), formal education is an investment in human capital which is equal to or even more valuable than physical capital. Investment in human capital will often lead to greater productivity which is valued more than investment in tangible assets in the new global economy (Almendarez 2010: 2). Higher education is therefore capable of teaching the individual general facts, the use of specific tools, and general problem-solving techniques (Taubman and Wales 1974: 26). Through higher education individuals become more tolerant of diversity, better able to stand stress, be better leaders, more disciplined mentally, and these could make a person a more productive and effective worker (ibid). Shultz (1981: 313) has emphasized that measured by labor contribution to total output, the productive capacity of individuals is larger than all other forms of wealth taken together.

Unterhalter (in Deneulin and Shahani 2009: 201) have explained the relevance of education as follows: "Without education, people can be subject to abuses by the most powerful. Without education, people may be constrained to find menial jobs that do not fulfill them... Without education, those who are marginalized or oppressed may not have the resources to denounce the injustices they suffer from and to claim their rights". Odekunle (2001 cited in Olaniyan and Okemakinde 2008:480) has explained that investment in human capital correlates positively with the availability and effectiveness of entrepreneurial activities and technological innovation. Human capital theory explains that a person's education is an investment which involves direct spending and opportunity cost to develop his/her human capital to make the individual more productive and in turn, receives benefits as an individual (micro level) and to society (macro level) as a whole. The private (micro level) benefits include better employment prospects, higher salaries, and a greater ability to save and invest, creation of status, job security, resulting in better health and improved quality of life (UNDP 2010; Bloom et al. 2005; Ayeni 2003).

At the society or macro level the benefits include greater tax revenue, increased savings and investment (Bloom et al. 2005 cited in Pillay 2010:26). Almendarez (2010) has indicated that as sections of society are educated, the benefits are extended to the entire community. Education has positive externalities; educate part of the community and the whole society benefits (Almendarez 2010). Research findings have indicated that improvement in higher education accelerates productivity and contributes to the development of technology. Evidently countries in East Asia such as Hong Kong, Korea, Singapore, and Taiwan have experienced very high economic growth achieved through good investment in higher education (ibid: 4). The World Bank (1993) has confirmed the positive impact of improved higher education on the economic growth of East Asian countries. Education has positive externalities that accrue to society from a more educated labor force and populace and these externalities are important for the proper functioning of the economy and democracy. The more instructed a society is, the less liable it is to be involved in unhealthy traditions and superstitions with their retrogressive tendencies (Smith 1976); a well-educated and intelligent citizenry is always more decent and cooperative than ignorant ones (ibid). Improved human capital enhances labor productivity, facilitates technological innovation, yields good returns to capital and ensures sustainable growth; and all these play a vital role in poverty reduction (Almendarez 2010). Barro and Lee (2010) have projected that: "increasing average years of schooling by one year increases per capita GDP by 1.7 percent to 12.1 percent, depending on the specification or level of education". Because of the positive externalities governments are enjoined to strongly support higher education financially (Smith 1976).

Governments in developing countries have therefore realized the need to spend on education to develop its human knowledge; the higher the level of education the better. Heavy investment in education is not only targeted at impacting knowledge and skills to individuals but to inculcate values, ideas, attitudes and aspirations require for socio-economic development (Olaniyan and Okemakinde 2008: 482). On other hand, parents have also perceived that the better the education of their children, the better their chances of acquiring well-paid jobs (ibid). Parents therefore try to support their children's education to escape poverty. The resultant effect has been massification of education from the primary stage to the higher education level coupled with increasing costs of educational infrastructure and other associated expenditures vis-a vis expenditures on other sectors of the economy, putting stress on the scarce resources of developing countries. These pressures create dilemmas for governments to realistically assess and determine spending priorities for scarce economic resources (op cit.). Saha (1997 cited in Oleniyan and Okemakinde 2008: 482) has argued that developing countries should ensure that educational demands should bring costs and benefits to more realistic levels. The basic implication of the model is that allocation of resources on education should be expanded to the point where the presence of the streams of returns to marginal investment is equal to or greater than the marginal costs (Olaniyan and Okemakinde 2008:482).

The World Bank as a key proponent of the human capital theory has prescribed basic education as the main factor that promotes economic growth, and in its concept of external efficiency has established economic goals and thus imposed human capital theory on developing countries (Oliver 2004: 123). According to Spring (1998 cited in Oliver 2004:124), external efficiency is determined by the number of unemployed graduates; the higher the unemployed graduates, the lower the efficiency of the higher education system. Thus, according to the tenets of human capital theory, the rationale for becoming educated is to get employed. The World Bank's assertion is that potential students could be forced to make well informed decisions by imposing and increasing tuition fees. Secondly, a private higher education system can be created while public higher education institutions are starved of funds and forced to generate their own private funding systems (Spring 1998: 183). The quest to find employment after graduation will compel potential students to enroll in programs with market value, and thus force higher education institutions to alter their academic programs and curricula in favor of market demands and make them efficient and competitive (ibid).

In conclusion, the implementation of human capital goals as prescribed by the World Bank restricts access to higher education and results in less financial support from the state. The World Bank economic interpretation of human capital theory with its ramification of declining public funding of higher education contravenes the United Nations Education, Scientific, and Cultural Organization's (UNESCO) policy paper for change and development in higher education which is based on the Universal Declaration of Human Rights. Article 26, paragraph 1 of the Universal Declaration of Human Rights states that: *"Everyone has the right to education" and that 'higher education shall be equally accessible to all on the basis of merit', and endorsing the basic principles of Convention against Discrimination in Education (1960), which, by Article 4, commits the States Parties to it to 'make higher education equally accessible to all on the basis of to all on the basis of to all on the basis of the Universe to it to 'make higher education equally accessible to all on the basis be all on the basis of the Universe to it to 'make higher education equally accessible to all on the basis of the Universe to it to 'make higher education equally accessible to all on the basis of individual capacity" (World Conference on Higher Education October 1998).*

3.4.4 Implications of Human Capital Theory (HCT)

The theory elaborates that there is a positive correlation between investment in education, improved efficiency, increased productivity, and enhanced socio-economic development, as demonstrated on Figure 3.1 below.

Figure 3.1 Human Capital Model



Source: Swanson and Holton (2001).

Relationship one (1) on the figure explains that improved resource inflows in education and training enhances and improves learning (Imeokparial and Ediagbonya 2012). Relationship two indicates that increased learning can lead to increased efficiency and increased output of the learner, which leads to improved and increased wages for the individual learner. Relationship 3 explains that increased productivity further improves wages of the individuals. The human capital theory, as illustrated by Swanson and Holton (2001), justifies that at the micro level, investment in education of individuals leads to increased learning and efficiency, which finally leads to improved productivity and wages of the individuals. At the macro level, increased investment in education, in the long-run, leads to increased productivity, increased earnings for the individual learner and the state in general, which necessitates improvement in socio-economic development of a nation.

The theory therefore explains that nations desirous of ensuring that their citizens improve their earnings should invest adequate resources in education and learning. Thus, increased resources for human capital development improve competencies, knowledge, habits, social and personality characteristics of a nation, which are essential ingredients for socio-economic development (Asuquo and Agboola 2014: 6). Further, as earnings improve at the micro level, in the long-run the entire nation improves its earnings through taxes and improved productivity. Individuals who are beneficiaries of the improved learning and increased earnings will also be prepared to share in the investment which in the long-run, improves their income levels and general welfare in

society. Thus, education's capacity to improve and increase the productive capacity of the existing labor force contributes to economic growth and development (Babalola 2003). However, for education to generate the expected increased productivity, economic growth and development it should be anti-traditional that liberates, sensitizes, informs and teaches the individual how and why to make demands (Almendarez 2010). Without quality education, the productive capacity of the workforce would not be competitive in the international market and hence there is the need to strategize education growth with technology playing a central role (ibid.). To ensure optimum contribution to socio-economic growth and development, education should be of the desired quality and meet the skilled manpower needs of the economy (op cit.). This theory is very relevant to this study as it will be useful to answering the question on challenges and opportunities available for public universities in their IGR mobilization efforts.

3.4.5 Critique of the Human Capital Theory

Critics of the human capital model argue that comparing investment in human capital to machines and equipment or capital goods goes against human values and beliefs, except in slavery and this is unacceptable (Shultz 1961: 313; Karabel and Harlsey 1977). Further criticism of the theory advanced by Ashton and Green (1996: 17) asserts that branding human capital as a 'thing' to be acquired and utilized alongside other factors of production does not factor in the social context of skills and technology and thus dignify physical capital with humanity. A call for a new name to clarify and justify the human skills being used and not physical capital is imperative. There is further argument that the theory treats education and training as a "black box" production process which is the educators' responsibility and this is unacceptable to economists and business community (Ashton and Green 1996: 18). Further, the theory does not recognize the worker as a pragmatic individual who can make endogenous choices about their education, considering differences in their developed abilities and personal tastes as a point of reference (Belfield 2000:32). Again, the economic concept of the theory based purely on costbenefit analysis does not consider all other indirect benefits of education and other social investments and therefore the theory does not completely explain all issues involved in resource allocation (Woodhall 1987:3).

It is further asserted that the theory assumes the labor market is very rational and efficient to allocate school graduates to occupations appropriate for their level of expertise, but this is not usually the case. Finally, the theory views schooling as a machine where people enroll and exit with their human capital improved and ready to contribute to economic growth (Unterhalter in Deneulin & Shahani 2009). Apparently, promoting education in society often creates income inequalities (Bronchi 2003) and, at times, the targeted development goals set for education may yield different outcomes, especially if the set goals are politically motivated and may not justify public huge investments (Fagerlind and Saha 1997). Projecting education as the panacea for national development goals' attainment may therefore be risky and unproductive, and that without structural reforms schooling may not guarantee the achievement of desired societal goals (ibid). In a similar vein, Ayara (2002) has asserted that the expected positive impact of education on economic growth in Nigeria has not been favorable and alludes that this may be because of the following:

- Educational capital has gone into privately remunerative but socially unproductive activities; that is, higher education achieved at higher social cost but with higher private benefit
- There has been a slow growth in the demand for educated labor.
- The education system has failed, such that schooling provides few (or no) skills.

According to Psacharopoulos et al. (2004a) "a man educated at the expense of much labour and time may be compared to one of those expensive machines... and the work he learns to perform should replace to him the whole expense of his education". Resources expended on education determine the extent and value of human capital and therefore, the rate of return on the amount spent could be assessed the same way investment in physical capital is assessed (Mincer 1958; Schultz 1961; and Backer 1975). Accordingly, a person's educational training constitutes investment (direct expenses made on education, and the opportunity cost of the student's time) in a person's human capital development which enhances the productivity of the trainee with the associated accrued future benefits, such as higher productivity, increased wages and other non-monetary individual and social benefits (ibid).

3.5 Resource Dependence Theory (RDT)

3.5.1 Introduction

The Resource Dependence Theory explains how organizations are affected by the critical resources they need to operate which are being controlled by another organization. The theory seeks to explain the behavioral relationship between a focal organization and other organizations in its environment in respect of those critical resources required for its survival and functioning. This model was developed by Pfeffer and Salancik in their 1978 publication titled: 'The External Control of Organizations: A Resource Dependence Perspective'. The model explains the organization as operating in an open system dependent on contingencies in the external environment; to understand the behavior of an organization you must understand the context of the behavior (Pfeffer and Salancik (1978:1). Central to the organization's action is the concept of power, which is the control over vital resources (Ulrich and Barney 1984). Pfeffer and Salancik (cited in Davis and Cobb 2010:5) have opined that the motivation of those running the organization is to ensure the organization's survival and to enhance their autonomy, as well as maintaining stability in the organization's exchange relations. The theory argues that a specific organization will react and turn to depend on other organizations in its environment that control the critical resources required for its operations, and for which it has limited control (Johnson 1995: 1). That is, an organization's effectiveness in accessing and maintaining the vital resources needed for its operations is key to its survival (Pfeffer and Salancik 1978: 2). An organization will therefore react and depend on other organizations that control the critical resources it needs for its operations. Access to the critical resources becomes an external constraint to the organization which it needs but has no control over, which creates a disproportionate exchange and power relations between organizations (ibid: 1).

3.5.2 General Perspectives of the Model

In the view of Sheppard (1995: 28) resource dependence theory perceives organizations as a coalition of splinter groups each exercising authority over the other organization for different motives. The motive may range from possession of means to controlling the behavior of other organizations, for instance, owners of stock may control the use of resources essential for the operations of the organization; managers and critical departments may control access to the needed resources; workers' unions that control access to the organization's skilled manpower; or

may regulate the acquisition of vital resources; and government regulating the issuance of foreign exchange acquisition (ibid). Since a focal organization's effective functioning will depend on actions of other individuals it does not have control over, the actions of a manager of a focal organization will be based on his/her subjective understanding of what persist in the environment at any given time (Nienhuser 2008: 13).

According to Davis and Cobb (2010:5-6) the theory demonstrates the importance of exchange and power relations in and around organizations where those that run organizations use their power and manage their dependence. A focal organization therefore designs strategies to manage its power and dependence to maximize its autonomy (ibid). Again, a focal organization faces conflicting demands because of its environment having different people, groups, organizations or regulations all of which influence the focal organization's survival (Pfiffer and Salancik 1978). The challenge faced by the focal organization therefore, is which group(s) to attend to and which should be ignored (ibid). In managing dependencies, the external constraint becomes a formidable organizational challenge and managers often opt to strategically manipulate the external power sources. The RDT model is fundamentally based on three main contextual concepts of organizational existence namely: organizational effectiveness, organizational environment, and constraints (Pfeffer and Salancik 1978: 10-14). Figure 3.2 below illustrates these contextual concepts which also constitute the main variables of the model.

Organizational effectiveness is the potential of a focal organization to produce actions and results acceptable to all its stakeholders that have an interest in the operations of the focal organization (ibid: 11). Undeniably, such organizational effectiveness is assessed by external standards since genuine judgment is given by the stakeholders who are not directly involved in the operations of the focal organization; that is, the external judgment of the activities of the focal organization (op cit.). Where performance assessment is undertaken internally, organizational efficiency will be the concept for discussion (ibid). The second concept is the organizational environment which involves every event that impacts on the functions and outcomes of the focal organization's activities (ibid: 12). The level of influence of every event in the environment on an organization may differ from one focal organization to another, depending on whether the focal organization

has strategized well to withstand any external shock, in which case the focal organization will not respond to the environmental occurrences (op cit.).

Figure 3.2 Contextual Perspective on Organization



Source: *Delke* (2015).

There may be situations where due to ignorance of events leading to changes in its environment, a focal organization will not respond to such changes and thereby face the consequences (ibid.). Thus, how organizations respond to events in their environment affects their effectiveness and will depend on how solidly an organization is connected to its environment, or how an organization learns about its environment, and how it selects and utilizes information in the environment that affects its actions (Hillman et al., 2009: 2).

The last concept in the organization-environment relationship is constraints (Pfeffer and Salancik 1978: 14). The concept explains how often the organization will respond to or behave towards actions in its environment; where a given situation or action elicits a prompt response from the organization without any option or choice, that action is constrained (Pfeffer and Salancik: 14). The concept of constraint assumes that the effects of individual actions on organizations are uncertain and unpredictable (ibid). Instances of constrained behavior or actions are social influence, information, personal preferences, and cognitive skills (ibid: 15). Thus, to be effective,

organizations work to stabilize their environment and reduce constraints to achieve their objectives as indicated in Figure 3.2 above.

The RDT model makes clear the relevance of interdependencies which is the reason why things may not occur as anticipated (Pfeffer and Salancik 1978). Any event whose outcome depends on multiple causal agents is said to be affected by the interdependent agents (ibid: 40). Two types of interdependence between two actors are identified, namely outcome and behavioral interdependence (ibid: 41). With outcome interdependence the success of actor A is directly affected by what actor B also achieves. Behavioral interdependence assumes that the activities of actor A are dependent on the actions of another social actor. The vital factors that determine the level/degree of interdependence are: the importance of the resource, the level of discretionary control the interest group has over the resource, and the degree to which the resource can have alternatives (Handfield 1993: 291). Figure 3.3 below explains the interdependence among different actors in the organization and environment relationship.

There is a difference between an organization and its environment, and according to Pfeffer and Salancik (1978: 36), an organization is defined as "a coalition of groups and interests, each attempting to obtain something from the collectivity by interacting with others, and each with its own preferences and objectives". According to Smart (1999) "organizations consist of participants not organized as a unitary hierarchy or as an organic entity, but as a loosely linked coalition of shifting interest groups". Thus, individuals and groups in an organization are aligned to reap rewards from their resource providers, and in return for these inducements, they contribute to the mission of the organization (Pfeffer and Salancik 1978). Apparently, organizations are very active in determining the selection of their resource providers as well as the terms of exchange for resources (ibid:1). Environment in resource dependence theory on the other hand, includes all actors that impact on the activities or outcomes of the focal organization (ibid:12). In the words of Molm (2001:260-261), actors are participants in exchange, and can be individual person, a corporate group, or an organization; and Molm also refers to both 'organizational actors' and 'organizations' as actors.

Figure 3.3 Two Organizations as Independent Agents



Source: Delke (2015).

However, not all actors in the focal organization environment affect it or is viewed as important to the organization. In other words, the most important environmental actors are the groups, individuals, coalitions, and organizations that control and provide resources vital to an organization, and that aim to influence an organization and its resources and are considered as stakeholders (Pferffer and Salancik 2003: 258-259). A stakeholder is then defined as "*any group or individual who can affect or is affected by the achievement of the organization's objectives*" (Freeman 1984: 46). Mitroff (1983) has also identified 'external stakeholders' and referred to them as those actors who could exert their power and influence over resource recipients to promote their own interests and expectations.

The organizational environment is composed of Technical (task) and Institutional environments (Scott 2003: 211). The technical or task environment refers to sources of inputs, markets for

outputs, information and know-how, competitors and regulators; and it is the arena for production of goods and services of the organization that is exchanged in the market (Pfeffer and Salancik 2003: 190; Scott 1987: 126). The institutional environment involves social and cultural values, as well as the political environments which define the political, social, and economic incentives available, and therefore defines the scope of strategic choices available to individuals and organizations (Pfeffer and Salancik 2003: 190). It is worth stressing that the technical and institutional environments are both connected and work hand in hand (Pfeffer and Salancik 2003: 190). Again, the organizational environment offers both opportunities and constraints on actions and therefore influence the operations of the organization. That is, the environment defines the resources needed by the organization as well as the constraints which limits the options for organizational operations (ibid).

To maximize autonomy, organizational leaders strategize to manage these external constraints and dependencies. To satisfy the environmental demands and reduce uncertainty in their dependence on other organizations, focal organizations aim at first, acquiring resources while minimizing their dependence on other organizations; and second, controlling resources to maximize the dependence of other organizations on themselves. That is, organization managers design tactics to minimize their dependence or increase their power over other organizations (Nienhuser 2008: 13; Pfeffer and Salancik 1978). Thus, organizations will attempt to appropriate more power and autonomy¹⁶ to limit their dependence and reduce the uncertainty of external pressures and demands (Aldrich and Pfeffer 1976; Johnson 1997: 7). Leaders of organizations will therefore design two major adaptive strategies to address and negotiate relationships of dependence namely: buffering and bridging (Johnson 1995: 9). These strategies are directed to defend, define, and redefine organizational boundaries, and to absorb inter-dependence and reduce uncertainty (Scott 1992). Evidently, buffering and bridging strategies lead to structural and personnel changes within the organization so leaders must adapt to changing resource contingencies (Johnson 1995: 9).

¹⁶ Organization's ability to decide its own action through independent choice within a system.

Buffering is an act of acquiring the largest amount of resources for the longest possible time so as to secure a steady flow of resources (Pfeffer and Salancik 1978). This strategy necessitates enlarging and securing the territories of the organization (ibid). In its effort to minimize unforeseen circumstances surrounding the core resources to optimize its utilization for increased productivity, the dependent organization will guide its core resources from fluctuation resulting from environmental dependence (Johnson 1995: 10). Concerning inputs requirements, buffering enables organizations to stock-pile the needed materials and supplies to ensure a regular and stable flow of resources to the production process, and maintain a degree of organizational autonomy (ibid: 10). Other strategies for ensuring a consistent flow of inputs are: "coding, leveling, forecasting, and adjusting the scale of the organization's technical core", and these will require good information about the organizational environment by scanning the environment (Pfeffer and Salancik 1978: 262-268). Bridging on the other hand, requires the modification of organizational operational territories through "*boundary-spanning or boundary-shifting*" (Johnson 1995: 10-11).

In their effort to minimize, and if possible, eradicate uncertainties associated with the flow of the needed resources to the organization, leaders try to link their organizations with their exchange partners, competitors, and regulators (Johnson 1995: 10). The rationale for bridging is to reduce dependence and increase organizational autonomy (ibid). Several partial and complete bridging strategies have been identified, and notable among them are partial bridging targeted through joint ventures, contracting, transfer of executives, managers and other officers across the organization, and resource diversification (Scott 1992; Pfeffer and Salancik 1978; Thompson 1967). Complete/total bridging pursued through the adoption of mergers/vertical integration, cooption, inter-organizational relationships, boards of directors, political action to manipulate decisions and regulations, and executive succession (Hillmann, Withers and Collins 2009:1405). Bridging enables the focal organization to select more profitable and controllable resource providers to do business with (Pfeffer and Salancik 1978). It helps to internalize and reduce dependence effects through mergers and diversification (Thompson 1967). Focal organizations

could establish external linkages to manipulate the exchange relationships through boards of directors' interlocks¹⁷ (Pfeffer and Salancik 1978: 145, 161).

In conclusion, Resource Dependence Theory argues that because organizations are environmentally constrained by the critical resources needed to function, managers make every conscious effort to manage and tactically adapt to their environment. The main aim is to secure critical resources and minimize their dependence on other organizations and to have power over critical resources in order to maximize their dominance over other organizations (Pfeffer and Salancik 1978). The theory recognizes the limitations managers may encounter as they strategize to control their environment. These limitations may emanate from legal, financial, social and economic impediments that may restrict the activities and strategies of organizations (Pfeffer and Salancik 2003). However, such limitations could be overcome via statutory interventions (ibid). The efforts of the universities to mobilize the vital resources from the Ghanaian community to manage subvention decline would have their associated challenges and opportunities which would require effective strategies to optimize their resource requirements and manage the effects of the strategies; this is the focus of the study.

3.5.3 Resource Dependence Theory (RDT) and Higher Education

The Resource Dependence model explains how the corporate university adopts strategies to manage its technical and institutional environments to mobilize revenue which is a critical resource for its operations. It also explains how actions and inactions of critical resource providers, such as workers' unions can affect the effectiveness and efficiency of the university. Figure 3.4 below illustrates how the RDT is applicable to this research. The bidirectional relationship of the model (depicted by the dual arrow linking 1 & 2 on Figure 3.4) indicates the mutual dependence of the university and its environment. While the university will depend on the technical and institutional environment (3) for its financial/material resources, personnel, information and other critical resources, the environment also will require the services of the university to acquire its degrees and diplomas before going to the job market for employment; showing power and interdependency. The university further offers other social services such as health care, provision of quality water supply and others for the resource providers in its

¹⁷ Linkages in which directors of one organization sit on the board of another organization to assist in acquiring information and expertise unattainable elsewhere.

environment. To increase its autonomy while acquiring the critical resources in its environment, the university, through management interlocks, boards, the executive council and other bridging strategies, incorporates influential personalities in its environment, into its decision-making processes.





Source: Adapted from Gebreyes (2015).

Hillmann, Withers and Collins (2009:1405) maintain that to attain trust and legitimacy (6) for its operations in such instances, the university nominates its staff to serve on boards of other organizations and sister universities and vice-versa. For instance, Max Price, the Vice Chancellor of the University of Cape Town, South Africa has been appointed as a Council Member of the University of Ghana, Legon to help identify the structural and operational issues which need changing to improve upon management and general performance of the University of Ghana (Weiss September 2016). Such engagements enable the university to learn and adapt (7) new strategies and technologies introduced by their representatives on boards of other organizations as well as others serving on the university boards and committees, and thus, maximize its power and increase its autonomy over its environment (ibid). These enhance its operations and revenue generation activities. The university management strengthens its trust and legitimacy (6) through probity, accountability, and transparency (5) which enhances its internally generated revenue

activities. Apparently, the university further supports its trust and legitimacy by administrative and secondary laws (Seneadza 2012: 9-12) to create structures to manage inter and intra dependencies. Such structures include academic management leaders from college to department levels, revenue generation structures such as business incubators, limited liability companies and others. Evidently, such structures further compensate for the criticism against the RDT model, that it does not recognize its internal power play in its operations (Hall 1999; Johnson 1995; Donaldson 1995:161). These structures help to strengthen and improve the IGR mobilization (8) process. The study focus is on efforts the universities adopt to mobilize the vital resources to complement declining state subvention. The conceptual issues discussed in this section place in perspective the effective ways universities could mobilize the vital resources to manage their mandate delivery and that is the main goal of research objective and question three which seek to explain the strategies universities adopt for IGR mobilization.

3.5.4 Principles and Assumptions of the Model

The main assumption of this theory is that every organization requires resources to survive and all actions are geared towards ensuring survival (Pfeffer and Salancik 1978). The basis of organizational survival is therefore the ability to secure and maintain the critical resources needed for its operations (ibid: 2). A further assumption is that the environment of a focal organization is replete with scarce and valued resources essential for its survival and the focal organization needs to engage in exchange with its environment for uninterrupted flow of such resources. The engagement of the focal organization with its environment then, necessitates offering of acceptable goods and services to the organization it depends on, and the mutual benefits therefore result in dependencies between the focal organization and its environment (Johnson 1995). Where resources are localized there is the likelihood of power being centralized in an organization's environment since control of such vital resources means control of power (Nienhuser 2008: 10). The theory further assumes that no focal organization is completely in control of the conditions of its existence and it is also not entirely autonomous in pursuing the desired goals at its own discretion (Pfeffer and Salancik 1978: 19). To survive, the focal organization must engage in exchanges of resources with other groups or organizations in their environment (Pfeffer and Salancik 1978; Scott 1992; Hall 1999: 279).

Resources¹⁸ here are the tangible and intangible assets used by organizations to design and implement their strategies, and these could be monetary, physical, human, information or social intimacy and all assets deemed vital for the continued survival and success of the focal organization (Pfeffer and Salancik 1978: 43; Barney and Arikan 2001: 138). Resource exchange may take the form of two dimensions upon which resource providers can impact on the focal organization and these are the relative magnitude of exchange and the criticality of the resource to the recipient (Pfeffer and Salancik 1978: 46). Relative magnitude is measured in terms of the share of the resources provided. Where the resources are received from only one source the recipient will be heavily dependent upon that source and hence the power exercised over the focal organization will be great. Again, the theory operates under the assumption that resource providers in the environment may have the ability to exert power over the resource recipient to enforce their demands and interests. According to Etzioni (1964) the bases for power are: coercive (force/threat), utilitarian (incentives), and normative (symbolic influences).

A fundamental principle of the Resource Dependence Theory is the fact that sound management of the organizational environment is as vital to the leaders as managing the organization itself (Aldrich & Pfeffer 1976). Further, since resource providers for focal organizations have the capability of exercising power over resource recipients (focal organization) to promote their own demands, the focal organization also tries to change the environment to suit its interests (Pfeffer and Salancik 1978: 222). Dependence is defined as the product of the relevance of a given resource to the organization and the extent to which it is controlled by external actors. Therefore, if a critical¹⁹ resource has a sole provider, the resource recipient has little power to bargain and will be heavily dependent on the resource provider. Where there are options or alternative sources to acquire the resources, the focal organization will have a choice and therefore be less dependent on one resource provider (ibid: 51-52 and 237). Consequently, the more critical and attractive the resource of a provider to organizations the more demands the provider will face.

¹⁸ Monetary resources are the financial means. Physical resources include raw materials, production equipment and infrastructural assets. Human resources refer to all the personnel in an organization. Information involves knowledge about the environment of the focal organization that could impact on its operations.

¹⁹ The degree to which the focal organization can operate without a particular resource.

According to Emerson (1962 cited in Johnson 1995:2), organization 'A' is dependent on organization 'B' if organization 'B' controls some vital resources needed by organization 'A' for which 'A' has no alternative source of acquisition. This creates disproportionate dependence and power relations between organizations; and thus organization 'A' is dependent on organization 'B', while organization 'B' has power over organization 'A' (ibid: 2). The theory elucidates that a focal organization becomes externally controlled when other organizations in its environment have power over it by resources they control and make demands based on unequal dependence (op cit.). Such unequal dependence and power are often not stable as the less powerful organization will engage in operations which will reduce the impact of these power gaps (Blau 1964 cited in Johnson 1995: 2).

3.5.5 Critique of the Resource Dependence Theory

Despite the relevance of the Resource Dependence Theory, critics have argued that a few assumptions and concepts upon which the theory is premised have not been extensively tested. Other scholars however have explained that it is very difficult to test all the hypotheses and assumptions of the theory (Nienhuser 2008: 8; Pfeffer and Salancik 2003: xxxiii). Nonetheless, it is opined that portions of the variables and hypotheses of the theory have been empirically tested and improved upon (Casciaro and Piskorski 2005: 191-192). The theory is further criticized for the perception that organizations always act rationally to maximize their resources, and thus overlook the unconscious behaviors that make them to imitate other actors irrationally in their environment (Tolbert and Zucker 1996: 177). Again, the theory's emphasis is on the environment which is external to it and does not observe its internal power play culminating from its middle or operational levels of management which can negatively impact on the effectiveness of the organization (Hall 1999; Johnson 1995; Donaldson 1995: 161).

To tackle this limitation, management of the universities included in this study will be broadened to include all structures that disseminate and implement the decisions of the university councils which is the highest decision-making body. Other structures included are the academic governance/leadership of the universities: ranging from the academic boards, college boards to school and departmental boards. Despite the criticisms, the theory has given a good account of organizational actions and behaviors vis-a-vis its search for critical resources to survive (Johnson 1995: 16). It has elaborated on the resource needs, resource scarcity, and resource exchange among organizations. It has also stressed the organizational dependence and the constraints on organizational autonomy and these constitute the main strengths of the theory (ibid). In general, there are a few scholars who have challenged the usefulness of Resource Dependence Theory compared to the majority endorsement, and it is very difficult to discredit the basic idea of the theory and its applications (Davis and Cobb 2010: 10).

3.6 Conclusion

This chapter has elaborated on the theoretical underpinnings of funding in public universities in Ghana which is the focus of this research study. This study's theoretical focus, therefore, is the market-oriented neo-liberal philosophy, human capital development mentality, managerial efficiency and cost cutting ideology emanating from the New Public-Management paradigm, and Resource Development Theory. The neo-liberal theory explains the effective ways of organizing political and economic activities through the free-market principles to ensure total freedom for people in a social system. The theory elaborates that the government should disengage itself from any business of state ownership and only play a facilitating role through policy interventions in any well-structured socio-economic activities. Government's disengagement in direct state ownership has been extended to include social services such as education and health care which used to have state funding and protection. The structural adjustment program which necessitated the emergence of the market-oriented theory and its adverse effects on social services such as education have been explained. The chapter has further discussed the principles, assumptions, implications for higher education, as well as critiqued the theory for its anti-poor stance. The chapter further discussed the new public-management paradigm as a modern government tool for ensuring effective and efficient use of resources in public sector organizations, in contrast to the former public administration considered to be very inefficient and wasteful in its financial performance. The application of private sector principles in ensuring accountability in doing government business with the adoption of the paradigm is well discussed. The implications of the new paradigm on higher education funding and delivery as elucidated by academics and other scholars with its social, psychological, economic, and institutional ramifications for higher education management, staff and students is presented.

The Human Capital theory is analyzed in relation to education and training of human capital needed for socio-economic development. Emphasis has been laid on the private and social costs as well as private and social benefits of education which determine who should pay what in respect of higher education costing. The role of the state with regards to higher education funding and its effect on human capital development is also assessed. Criticisms against the theory and its general implications on higher education are analyzed and conclusions drawn.

The Resource Dependence Theory is the last theory discussed in this chapter. This theory focuses on resource requirements for organizational survival and functioning in the external environment beyond the control of the focal organization. To survive, the organization offers something to its environment in exchange for its resource needs, creating power and exchange relations and mutual interdependence. The assumptions, operational principles, and the contextual issues of the theoretical model are well discussed, in addition to management strategies to manage power by minimizing dependence on other organizations while appropriating more power and autonomy. The main strategies adopted are buffering and bridging aimed at safeguarding and redefining organizational boundaries. The chapter explains how the theory relates and applies to higher education management to generate and manage internally generated revenue, and further critiques the theory. The New Public-Management paradigm will complement the neo-liberal theory to explain and answer the study research questions as indicated below:

- What are the current experiences of staff and students with regards to state funding of public universities in Ghana? and
- How are the available internally generated revenue or state funds spent in public universities in Ghana?

Additionally, the Human Capital theory will also complement the Resource Dependence Theory to answer the following research questions of the study:

- What are the funding challenges and opportunities in public universities in Ghana?
- What funding strategies have been employed to generate revenue in public universities in Ghana?

• How do internally generated revenue strategies affect the way in which public universities are managed in Ghana?

CHAPTER FOUR

EDUCATIONAL POLICIES AND REFORMS: CASE STUDY OF GHANA

4.1 Introduction

This chapter traces the evolution and governance system of tertiary education in Ghana and discusses educational policies and reforms at the tertiary level in Ghana during the colonial and post-independence period. How these policy reforms have affected education funding, access, and quality are also discussed. The chapter further examines university education funding challenges and the current funding models in Ghana. The performance of the Ghana Education Trust Fund (GETFund) and how it has influenced tertiary education funding in Ghana is reviewed.

4.2 Evolution of Tertiary Education in Ghana

The emergence of tertiary education in Ghana dates to the attainment of self-Government with the enactment of a new Constitution in 1951 (Leach et al. 2008:18). Ghana had one university college at the time, with 208 students pursuing degree courses (Eshun 1998:239). Public interest in higher education in Ghana has been phenomenal since the colonial period resulting from the confidence that it played a critical role in national development and that public funds should be invested to support it (Sawyerr 1994). The new leadership at post-independence saw the need for well educated people to contribute to the educational, political and socio-economic development of the country. A Department of Education, currently Ministry of Education, was established and tasked to implement, monitor and evaluate the progress of the Accelerated Development Plan²⁰ for Education (Leach et al. 2008:18). By 1962, Ghana had three universities with a student population of 4301 (Eshun 1998:241). A National Council for Higher Education and Research (NCHER)²¹ was constituted in the 1960s to coordinate programs of universities with adequate funding on a quinquennial²² basis (Manuh 2007:36). Higher education was expanded with the

²⁰ Promulgated in 1951 for rapid expansion, increasing access and participation in education at all levels.

²¹ Abolished by the PNDC military regime in Ghana in 1983 and replaced by the Higher Education Division of the Ministry of Education and Culture.

²² Adequate funding was released for higher education institutions every five years which enhanced strategic planning.

creation of a unified tertiary sector to include universities, university colleges, polytechnics, teacher education colleges and diploma awarding institutions, as recommended by the Universities Rationalization Committee (URC) of 1988 (URC 1988). In assessing Government-tertiary education relations, Sawyerr (cited in Manuh et al. 2007:39-41) catalogued three phases of relationship as follows:

- The State-controlled model: 1957-1966
- The State-supervised model: 1966-1981
- Confrontation and directed change: 1981-1992.

Currently, the legal/policy framework for tertiary education in Ghana is guided by the:

- Provisional National Defence Council (PNDC) Law 42 of 1982
- PNDC Law 239 of 1990
- The 1992 Republic of Ghana Constitution, Article 25
- Ghana Vision 2020.²³

4.2.1 Trends in Tertiary Education in Ghana

The importance of access to and equity in tertiary education has been emphasized by the 1998 Declaration of the World Conference on Higher Education (Altback, Reisberg and Rumbley 2009:37). The United Nations Education, Scientific and Cultural Organization (UNESCO) had confirmed Article 26(1) of the Universal Declaration of Human Rights which stresses that: *"Everyone has the right to education.... higher education shall be equally accessible to all on the basis of merit"* (ibid). The table below indicates the tertiary education enrollment levels in Ghana.

²³ The policy document was designed and implemented by the National Development Planning Commission (NDPC) in 1995 as Ghana's blue print for sustainable socio-economic development.

Year	Gross	Total	Male	Female
	Enrollment	Enrollment	Enrollment	Enrollment
	Ratio $(GER)^{24}$			
2000	3	54 658	40 993 (75%)	13 665(25%)
2007	6	140 017	92 411(66%)	47 606 (34%)
2012	12.1	286 506	-	-
2015	15.8	417,534	-	-
2016	15.7	-	-	-
2017	16.2	444,000	-	-

Table 4.1: Tertiary Education Enrollment Figures in Ghana

Source: Altbach et al. 2009, Bailey 2014.; UIS 2019; Kamran, Liang and Trines 2019

According to UIS data (2017 in Kamran, Liang and Trine 2019:10), public tertiary education enrollment in Ghana rose from 54658 in the 1999/2000 academic year to 286 506 in the 2012/2013 academic year, and inceased to 444,000 in 2017. Despite the 712.3 percent increase in enrollment in 17 years, Ghana's gross tertiary enrollment rate of 16.2 percent in 2017 was very low compared with 94 percent GER in Finland in 2007 (Altbach et al. 2009: 195). The total youth population in Ghana between the ages of 15-35 years was 9 123 427 in 2010 (Ghana Statistical Service 2013:46). According to Duwiejua (2015:1-2;), Ghana had a total student population of 417, 534 in tertiary education institutions in 2015 which is very low for the nation's current middle-income status. The total enrollment needs to be doubled if Ghana is to train the required skilled-manpower needs of the country, and this call for heavy investment in tertiary education (ibid).

²⁴ Total enrollment in a specific level of education, regardless of age, expressed as percentage of the eligible official school-age population corresponding to the level of education in a given school year (Altbach et al. 2009).

4.2.2 Governance and Tertiary Education Institutions in Ghana

The expanded tertiary institutions in Ghana necessitated an improved governance system which culminated in the establishment of the National Council for Tertiary Education (NCTE)²⁵ through an Act of Parliament, Act 454 of 1993 (NCTE 1993:1-7). The NCTE is an Agency of the Ministry of Education (MoE) and regulates tertiary education on behalf of Government (NCTE 1993:2). The National Accreditation Board (NAB) was also inaugurated by the NAB Law of 1993, PNDCL 317 and replaced later by the NAB Act 744 of 2007 as the quality assurance body of tertiary education in Ghana (Bailey 2014:6-10). A third tertiary education supervisory body, the National Board for Professional and Technician Examinations (NABPTEX) was also established by Act 492 of 1994, to design, conduct and supervise examinations, certification and standards for skills, and syllabus competencies for non-university institutions in Ghana (ibid). The structure and size of tertiary institutions in Ghana is attached as Appendix 1. The Ministry of Finance and Economic Planning (MFEP) determines the size of public funds²⁶ for public universities, through the NCTE and MoE (Bailey 2011:16).

4.3 International Framework for Education Management in Ghana

The pivotal role of education in nation building and the general wellbeing of people worldwide has made it a necessity and a basic need for individuals (McNeely 1995:483). International bodies have therefore designed global frameworks to guide and direct acceptable ideals, structure and practices of educational systems (ibid). Nations that subscribe to these international frameworks become signatories to international treaties and conventions which should be the regulatory framework for managing education systems for all member-states to ensure quality and progressively increasing access to education for all. There are a number of these international bodies with education as their area of concern. These include: United Nations, the World Bank, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the International Federation of Educational Associations and Alliance of Women and many others (ibid.:484). Many of the sub-institutions of the United Nations have a focus on international education in addition to their specialized area of interest; for instance, the

²⁵ Expanded NCHER to include tertiary education with Parliamentary approval.

²⁶ Funds released cover four expenditure items namely: Personnel Emoluments, Administration, Services and Investment (ibid).

International Labour Organization, International Development Association, Food and Agriculture Organization, World Health Organization and others.

The United Nations General Assembly adopted a Universal Declaration on Human Rights in 1948 and proclaimed that individuals have the right to education and made basic education free and compulsory for all (ibid.487-488). Gorden (cited in McNeely 1995:488) has espoused that these international education institutions have provided the code of conduct for all member-states on education management. Among these international bodies, UNESCO stands out as an international organization with its major focus on education with a nation-states membership of 195 as at November 2015 (McNeely 1995; UNESCO 2017:1). The constitution of UNESCO adopted in 1945 emphatically declares that the spread of culture and education for humanity "constitute a sacred duty which all nations must fulfill in a spirit of mutual assistance and concern" (McNeely 1995: 489). The goals and principles of the UNESCO constitution hinge on three ideals, namely: world citizenship and international collaboration, democracy and equality.

Ghana joined UNESCO on 11th April 1958 and has become an active member since (UNESCO 2011:3). Ghana is bound by the principles and constitution of UNESCO and has been a committed member making efforts to implement the ideals and practices of UNESCO. The 1992 Constitution of Ghana Articles 25 (1) and 38(2) provide that the Government should ensure progressively free education at all levels for all (Ghana 1992 Constitution, Article 25 and 38). Consequently, all Ghanaian citizens pursuing education at any level in Ghana are not expected to pay tuition fees. This is the dilemma of tertiary education management in Ghana who must explore other sources to generate funds to supplement declining state subvention as tertiary education massification and dwindling state resources have made Government fully-funded tertiary education in Ghana unsustainable.

4.4 Colonial and Post-Independence Education Policies and Reforms in Ghana

The history of the educational system in Ghana at all levels is replete with several minor and major policy reforms and changes. Because education is a vital tool for national socio-economic development, every responsible Government tries to promote good and sound educational policies and infrastructure to enable her citizens acquire knowledge, skills and attitudes essential to develop their potential to actively participate in nation building (Eyiah 2004:1). Failure in the

educational system will ultimately attract quick response and reaction of Government and local and international development partners. The educational system in Ghana is categorized into three stages as follows: Basic, Secondary (second cycle schools), and Tertiary (Bingab, Forson, and Baah-Ennumh (2016: 148). As in 2012, Ghana had 36 692 basic schools with a total enrollment of 7 163 003 learners; 515 secondary schools with a total enrollment of 2 291 267 learners between the ages of 15 to 18 years; and 136 tertiary institutions (Ministry of Education 2012; GoG 2013: 11). Figure 4.1 below shows the structure of the education system in Ghana. Educational policy reforms in Ghana had been initiated in response to concerns of stakeholders that the hitherto, highly effective and developed quality education system in Ghana in the West African sub-region (Foster 1965), had deteriorated and were near collapse and dysfunctional visà-vis the set goals and aspirations of the nation in the 1980s (Scadding 1989; Peil 1995). Educational policy reforms at the basic and secondary levels in Ghana can therefore be assessed in three phases namely; the pre-independence phase to 1950; the phase 1951 to 1986, and 1987 to date (Kadingdi 2004: 3). These phases have impacted on the access to and quality of education provision in Ghana.



Figure 4.1 Components of Educational System in Ghana

Source: Bingab, Forson, Mmbali, and Baah-Ennumh (2016).
4.4.1 Post-Independence Tertiary Education Reforms in Ghana

Ghana has gone through several educational policies and reforms since the pre-colonial period but most of these reforms have focused on pre-tertiary education. These reforms which improved access to pre-tertiary education resulted in an increasing number of secondary school graduates who felt they have the right to tertiary education (Leach et al. 2008:19). By 1966, Ghana had three (3) public universities with a total student population of 4 291 (Akyeampong 2010: 4). The ushering in of the 21st century saw the international agencies emphasizing the role of higher education in poverty alleviation with the World Bank and the United Kingdom Commission for Africa reports stating clearly that higher education was essential in capacity building of nations (Leach et al. 2008: 8). The World Bank categorically argued that: *"Tertiary education confers important public goods that are essential for development and poverty reduction: goods that must be accessible to all strata, to all people, and to both men and women"* (World Bank 2002: xi). Evidently, education and public policy issues are closely linked and produce two vital effects as follows (Bingab, Forson, and Baah-Ennumh 2016: 148):

- Training of human capital through the nation's education system as crucial for economic development; and
- Securing the nation's welfare through public spending and management of the education system.

Any alteration in this relationship affects national development and welfare, and therefore elicit public concerns and reactions (ibid).

The backdrop of the new developments emphasizing the vital role of tertiary education in socioeconomic development has been the national education reform agenda. Notable is the 1991 tertiary education reform program which aimed at improving tertiary education access, relevance and quality to enhance the socio-economic development of Ghana (ibid: 150). This reform was preceded by the Universities Rationalisation Committee (URC) constituted in 1988 by the Government of Flt Lieutenant J. J. Rawlings with the sole purpose of restructuring and embarking on a comprehensive review of post pre-tertiary education in Ghana (Leach et al. 2008: 26). The proposed restructuring of tertiary education was preceded by a period of higher education student upheavals and disruption of academic years in the 1980s. The unrest was fueled by financial constraints and the Government's quest to implement payment of student fees and removal of student' subsidies as prescribed by the IMF/World Bank Structural Adjustment Program (ibid).

Public universities at the time experienced a mass exodus of lecturers and other staff to better paid jobs outside and within Ghana, especially in the private sector (Manuh et al. 2007: 40). The rationale for the 1988 tertiary education reforms, and as part of the 1987 Education Reform Program was explained by Amonoo (1992: 261) as: "Government policy, as echoed by the National Program for Economic Development Revised, July 1, 1987, and especially in the report of the Universities Rationalisation Committee (URC) in January 1988, stressed the need to gear university training and research more closely to actual experiences of Ghanaians, maximizing the use of facilities, reducing costs through a phased removal of institutional feeding and residential subsidies, instituting students' loan schemes, and making higher education more accessible to more people, through part-time and non-formal education". The stated goals were to expand access, improve quality teaching and learning and provide the needed infrastructure for accelerated technical manpower and sustainable development (ibid.). It was also to create opportunities for university research and development reports and other scientific institutions that would be useful to farmers, artisans, Government agencies and industry (Bingab, Forson, and Baah-Ennumh 2016:151). Specific objectives of the reforms were to (Leach et al. 2008:26):

- Redefine and expand tertiary education to include all-secondary and pre-service training institutions under the umbrella of the Ministry of Education
- Make tertiary education cost-effective
- Increase the capacity of the institutions to generate their own income while encouraging the active participation of the private sector in funding tertiary education service delivery
- Obtain an appropriate balance between science/technology and social sciences/humanities students in relation to national manpower needs.

The recommendations of the URC were accepted by the Government and labelled "*Reforms to the Tertiary Education System*" in 1991 for implementation (ibid: 27). Thus, the implementation of the reforms created a single tertiary education system to include universities, polytechnics, teacher training colleges and other post-secondary

education/training institutions (ibid.). In order to expand access to tertiary education for the projected increases in the number of SSS graduates as well as improve quality, two additional universities were established, namely (Samoff and Carrol 2003; Manuh et al. 2007: 36):

- The University College of Education, Winneba in 1992 and granted full university status as University of Education, Winneba in 2004 with the mandate for training of professional teachers for the pre-tertiary education levels
- University of Development Studies (UDS) in 1993 at Tamale to train agricultural, health, and development studies specialists. It was charged to adopt a practical, action-oriented approach to education for solving community development challenges (Manuh et al. 2007: 36).

The actual implementation of the reforms between 1993 and 1998 were targeted at: "changing for better, the deterioration in the sector and to achieving increased access, improving quality of teaching and learning, financial stability/sustainability, strengthening management and governance, institutional capacities for monitoring and policy evaluation of tertiary education" (Girdwood 1999; Samoff and Carrol 2003). The reforms increased the number of universities and university colleges from three (3) in 1991 to 70 in 2014 (National Council for Tertiary Education 2014). The increase in institutions aided the expansion of university education access from 15,365 students in 1993/94 to 40,673 in 2000/2001; 73 000 in the 2004/05 academic years; and increased to more than 160,000 in the 2013/2014 academic year (National Council for Tertiary Education 2014). Polytechnic enrollment soared from 1299 to 18 474 in the same period; while teacher training colleges experienced enrollment increases from 18 955 to 21 410 in the same period (Amankwa 2007; Ministry of Education 2012). Thus, in the seven-year period of the implementation of the reforms, teacher training colleges increased their enrollment by 13 percent, universities experienced an enrollment increase of 164. 7 percent, while polytechnics had an unprecedented enrollment increase of 1322.2 percent.

The reforms further instituted two statutory regulatory bodies responsible for university education to replace the University Commission which was the sole regulatory body (Bingab, Forson, and Baah-Ennumh 2016: 157). These are the National Council for Tertiary Education

(NCTE) charged with general oversight responsibility of universities; and the National Accreditation Board (NAB) in charge of quality issues (ibid). The institutional capacity of the regulatory bodies has been improved to effectively and efficiently manage the ever-increasing number of universities resulting from private sector participation, to ensure that quality is not compromised (op cit.). Further, university governance systems have been improved as University Councils are empowered to appoint the Chancellor and Vice Chancellor, a task which was previously the preserve of the Head of State. This practice has made the universities very autonomous with the Vice Chancellor being accountable to the governing council of the university, and with minimal Government interference in the routine management of universities (ibid: 157).

Arguably, the reforms have improved the access component of tertiary education, but the national relevance and quality agenda remain major contentious issues as high graduate unemployment, and disguised unemployment continue to entrench poverty which pose a threat to national integration, peace and stability (Bingab, Forson, and Baah-Ennum 2016: 151). The African Development Bank has elaborated on these emerging threats to national security resulting from the failure of tertiary education as indicated in a report as: "though the Ghanaian population is becoming more educated, the current supply of skills required by the key growth and job creating sectors by the Ghanaian universities and polytechnics is still proving inadequate, and therefore, it is important that tertiary, technical and vocational schools are encouraged to establish pro-active links with industries" (African Development Bank 2012).

An important feature of the current system of tertiary education is the cost-sharing where the running costs of public universities is a shared responsibility of the state and beneficiary student/parents while in the private sector the student/parents have full responsibility for the cost of his/her university education (Bingab, Forson and Baah-Ennumh 2016: 157). Though higher education was fully funded by the Government during the initial post-independence period, recent development attest to the fact that Government can no longer soley fund the training of tertiary education students (ibid), particularlyas there are other equally important sectors of the economy competing for same limited resources (op cit.).

4.5 Funding Challenges in Public Universities in Ghana

Funding of university education in Ghana has become a topical issue due to the persistent drawbacks of public subvention to the sector. In situations where some funding is given to the sector there is undue delay in delivery creating financial uncertainty and possible labour unrest likely to disturb the peace needed for quality academic work (UCC 2015:39). Presenting the state of the University of Cape Coast (UCC) to Convocation, the Vice Chancellor (ibid) stated that university management must access bank overdrafts to settle workman's compensation²⁷ with its accruing interest²⁸ of 23.5 percent per annum to be paid with the university's internally generated revenue prior to the release of funding by the state. Similarly, the Vice Chancellor, Ghana (VCG: meetings of Vice Chancellors of Public Universities in Ghana) has bemoaned the difficulties in obtaining approval from the Ministry of Finance to employ or replace retired lecturers and professors to handle critical disciplines and this is adversely affecting higher education quality and access (Kokutse 2015: 2-5). The newly created public universities do not only lack lecturers but public subvention to pay workman's compensation which could be in arrears for up to six months (ibid).

The Universities Teachers Association of Ghana (UTAG), Cape Coast branch has joined the debate on funding of tertiary education in Ghana and held its maiden forum of experts in 2015 on the theme: "*Withdrawal of Government Subvention for Public Universities: Implications for Quality Tertiary Education in Ghana*" (UTAG 2015). The forum was to provide evidence based, independent and non-partisan policy alternatives for funding tertiary education for Government's consideration. The major observations of the forum were (ibid):

- i. Constitutional provision (1992 Constitution, Act 25) in Ghana does not permit the state to withdraw subvention to tertiary education institutions
- ii. Funding gap in tertiary education institutions in Ghana keeps on widening over time
- iii. There is a mismatch between the ratio of student class size to lecturers in public tertiary education institutions
- iv. There is the need for cost-sharing for stakeholders as Government cannot solely fund tertiary education in Ghana

²⁷ Wages and Salaries of Public Sector Workers.

²⁸ Cumulative interest on bank overdraft from October 2013 to December 2014 was Ghg2,182,910.05.

v. When market forces take over tertiary education, market standards will take over academic standards and the effects will be: poor academic quality, poor faculty quality, restricted access for qualified applicants from low income homes

4.6 Funding Model in Tertiary Education in Ghana

The expenditure items in public universities in Ghana are categorized as Workman's Compensation, Administration, Services, and Investment and the Ministry of Finance through the Ministry of Education has the core responsibility of determining and approving what funds are allocated to each of these expenditure items annually (Cloete et al. 2011:16). The National Council for Tertiary Education (NCTE) however, coordinates and monitor the annual budget design and implementation in tertiary education institutions (ibid.). Apparently, the approved budgetary ceiling for tertiary education institutions is dependent on the funds allocation from the Ministry of Finance, and not based on the annual financial needs of the institutions (ibid. 17). Officially, students in public tertiary education institutions enjoy tuition-free education but are responsible for their lodging and other expenses known as Academic Facility User Fees (AFUF) (op cit.: 19). In addition to the annual budgetary allocation paid by Government, public universities mobilize revenue internally to supplement the public grant. Further, the Government has mandated public tertiary education institutions to extend up to 10 percent of their annual admissions quota to foreign fee-paying students and Ghanaian students who pay subsidized tuition-fees to raise IGR to supplement the public grant (ibid.). The Government also established the Student Loan Scheme in 1992, but with retrospective effect from 1988 to grant loans to students to enable them to pay for their lodging, boarding and other academic incidental expenses, and the Scheme is funded by the Social Security and National Insurance Trust (ibid.)

To place tertiary education funding in perspective and define the funding roles for the various stakeholders, Government initiated a tertiary education funding stakeholders meeting in Akosombo in 1997 and the outcome was the Akosombo Accord, 1997 where cost-sharing for tertiary education was accepted and funding quotas were assigned as follows: Government: 70 percent payment of funding needs of tertiary education institutions; the public universities are to mobilize the remaining 30 percent funding requirements by tertiary education institutions: 10 percent; private donations: 10 percent; and student fees: 10 percent (Manuh et al. 2007: 96). To

give a further boost to tertiary education institutions the Government established the Ghana Education Trust Fund (GETFund) I 2000 to finance development projects, staff development, and research (Cloete et al.: 2011). Despite the beautiful funding framework for tertiary education institutions Government is not honouring its part of the agreement and releasing grants in accordance with what it can afford. Further, the National Constitutional Provision (1992 Constitution, Act 25) in Ghana does not permit tertiary education students to pay tuition fees which if changed could help improve upon the funding position of the institutions.

4.7 Review of the Ghana Education Trust Fund (GETFund)

The ever-increasing demand for tertiary education in Ghana with its associated quest for increased and improved infrastructure necessitated the creation of the Ghana Education Trust Fund (GETFund) in 2000, Act 581 (Auditor-General 2013: 1). Government is charged with the responsibility of ensuring free basic and secondary education for all citizens of Ghana and progressively making higher education accessible and free (1992 Constitution cited in Atuahene 2009: 34). Government cannot provide all the needed resources to propel tertiary education in Ghana to the expected levels and a recommendation from the National Union of Ghanaian Students for the establishment of the fund was received by Government sympathetically. The facility which has been touted as a landmark policy (Effah 2003), was to be resourced with 2.5 percent of Value Added Tax which was fixed at 10 percent at the time and was later increased to 12.5 percent to ensure a sustainable funding source for the Education sub-sector (Atuahene 2009: 40). A Secretariat headed by the GETFund Administrator was established to manage the fund and disbursement to the major benefiting public institutions was through the National Council for Tertiary Education, the supervisory body of tertiary education institutions in Ghana (Auditor-General 2013). A Board of Trustees of seventeen members drawn from various stakeholder institutions, including religious bodies was constituted for efficient management of the funds (Atuahene 2009: 40). The Board was assigned the task of the funds' collection, accounts keeping, and investing the funds in accordance with the set objectives of the GETFund Bill (Act 581 of 2000), and the policy directives from the Minister of Education (ibid). At the time of its inception Ghana had six public universities and ten polytechnics.

The fund management has two structures, namely, the pre-tertiary segment which involves basic and secondary education and disbursement of funds to this segment is through the Ministry of Education (ibid). The other structure is tertiary education where disbursement of funds is done through the National Council for Tertiary Education (NCTE). The main objective of the fund is to make available additional funds for public education institutions, research, scholarship and grants for high achieving but needy students (Atuahene 2009: 40). The main functions of the GETFund are (Auditor-General 2013; Atuahene 2009: 40):

- Allocating of financial resources to the various sections of the Ministry of Education through the sector Minister
- Provision and maintenance of academic facilities and infrastructure for the various segments of public educational institutions
- Complementing the supervisory role of the National Council for Tertiary Education to ensure proper management of resources allocated to public tertiary education institutions
- Monitoring projects financed with the GETFund facility
- Resourcing high achieving but needy students through the Ghana Scholarship Secretariat to pursue education
- Generating revenue for the successful running of the student loan scheme.

Disbursement of funds by the Board of Trustees is informed by the degree of need for infrastructural development, research and faculty development, student loans and scholarships, as well as disadvantaged and emergency areas i.e. northern Ghana (Atuahene 2009: 41). The main sources of funds for the Secretariat are (Auditor-General 2013: 8):

- 2.5 percent Value-Added Tax (VAT) collection
- Funds allocated by the Parliament other than the VAT
- Fund raising activities of the Board of Trustees
- Grants, gifts and voluntary contributions from individuals and organizations; and
- Profits from investment from the fund by the Board of Trustees.

The allocation of GETFund finances to tertiary education from 2001 to 2009 is indicated in Table 4.2 below.

Year	VAT Receipts (GHC million)	AmountallocatedtoTertiaryInstitutions(GHC million)	Percentage Allocation to Tertiary Education
2001	497.00	.0	35.0
2002	390.00	*	-
2003	400.00	174.4	43.6
2004	700.00	332.0	47.4
Total	1987.00	680.0	

 Table 4.2: GETFund VAT Receipts and Allocations to Tertiary Institutions from 2001

 2004

Source: GETFund Report (extracted from Atuahene 2006: 91-100) * data not available

GETFund receipts have experienced rapid increases from 2001 to 2004 (except 2002 and 2006) as indicated in Table 4.2 above. In 2001 for instance GHC358.3m was anticipated but at the end of the year 2001 GHC497.0m was generated which exceeded the projected target by 38.7 percent (Atuahene 2009: 43). However, an amount of GHC1.1b projected in 2005 was not realized and total receipt was GHC976.0m, reflecting an 11.3 percent deficit (Atuahene 2009: 43; Auditor General 2013). Receipts from 2007 to 2008 (see Table 4.3 below) indicated an increase of 42.7 percent while 2008 to 2009 recorded a marginal increase of 8 percent. Arguably, 2003 to 2004 recorded the highest increase in receipt of 75 percent (extracted from Table 4.2 above). In terms of <u>allocation to tertiary education</u>, a consistent percentage increase of GETFund receipts of 35, 43.6, and 47.4 percent was recorded in 2001, 2003, and 2004 respectively as shown in Table 4.3 below. The allocation in percentage terms, however, fluctuated from 2005 to 2009: indicating 3.8, 31.1, 22.6, 9.8, and 17.8 in 2005, 2006, 2007, 2008, and 2009 respectively. This fluctuating inflow poses serious planning challenges for tertiary education management.

Table 4.3:	GETFund	VAT	Receipts	and	Allocations	to	Tertiary	Institutions	from	2005-
2009										

Year	VAT Receipts	Amount allocated to Tertiary	Percentage Allocation to
	(GHC million)	Institutions (GHC million)	Tertiary Education
2005	976.00	36.82	3.8
2006	111.20	34.54	31.1
2007	157.00	35.44	22.6
2008	224.40	21.91	9.8
2009	242.00	43.07	17.8

Total	1710.60	171.78	17.02
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Source: GETFund Annual Report (extracted from the Auditor-General Report 2013).

NB: Tertiary institutions include public universities, polytechnics, Institute of Professional Studies (IPS) and Ghana Institute of Journalism (GIJ).

The GETFund has essentially improved the development and general infrastructural base of tertiary education and the Ministry of Finance (cited in Atuahene 2009: 43) has stated that GETFund provides the second largest amount of financial resources to tertiary education in Ghana, accounting for between 10 to 12.9 percent of Government expenditure in tertiary education institutions. The GETFund facility has greatly improved infrastructure, faculty research and development, as well as the funding of postgraduate studies, public scholarship schemes, and enhanced the establishment of the Student Loan Trust Fund (SLTF) (ibid). The facility in its early stages of inception allocated a higher percentage of the fund to tertiary education as compared to secondary and basic education. The trend changed from 2010 with tertiary and secondary education being allocated (in percentage) 24.55, 32.61 and 24.12, 31.64 in 2010 and 2011 respectively compared with 60, 47 and 40, 23 in 2001 and 2005 for tertiary and secondary education respectively (GETFund 2012, Ghanaweb 2012 and Atuahene 2009). Allocation to basic education in 2011 was 30.37 percent. Essentially, the injection of GETFund resources have improved the infrastructural base of tertiary education and increased university student enrollment from 63 576 in 2003-2004 to 88 445 in 2006-2007, an increase of 39.1 percent in three (3) years, while polytechnic student enrollment jumped from 18 459 in 2002 to 73 404 in 2005, an exponential increase of 297.7 percent in four (4) years (op cit.).

While the GETFund has greatly improved the tertiary education system, there is the need for an improvement in the management of the facility in the areas of planning and budgeting, managing project quality, and managing project schedules (Auditor-General 2013: 11). It has been revealed that 60 GETFund projects projected to cost GHC75 926 493 recorded a cost overrun of GHC37 374 785.00, indicating a 49.2 percent upward adjustment of project costs due to implementation delays and hence cost fluctuations and variations (ibid). At a national consultative forum on GETFund held on 22nd February 2010, participants noted that in the nine years of the fund's

existence resource allocation disparities have been observed due to ill-defined allocation formulas, lack of spending direction, lack of focus, and absence of frugality resulting in poor spending outcomes (Modern Ghana February 2010). It was further observed there was an over reliance on the 2.5 percent VAT as the major funding source as well as emerging rivalry between the Ministry of Education and GETFund (ibid). There was also great discretion in spending power outside the domain and control of managers of the fund which made the GETFund a payment center for projects and hence the fund's difficulty in paying contractors on schedule as well as delays in projects implementation (op cit). The forum further noted 50 projects alleged to have been awarded nationwide which could not be traced (ibid). A total of 3389 projects have been awarded in nine years since the fund's inception from 2001 to 2009; out of this number 286 have been abandoned and 157 did not commence which includes the 50 non-existing projects; 1869 and 1126 have been completed or are on-going respectively (ibid). The forum therefore called for the promulgation of a Legislative Instrument (LI) to enforce the GETFund law to "guide institutional relationships, fund-raising and management, project implementation, and spending priorities" (op cit).

In a Communique issued by the National Union of Ghana Students (NUGS) on 16th August 2016, the NUGS leadership called for a review of the GETFund Act 581 (2000) and expressed concern about undue delays of successive Governments in releasing GETFund to the fund managers for appropriation (NUGS 2016). The student leadership noted that most of the GETFund projects in tertiary institutions have been stalled for some time due to unavailability of funds (ibid). This has compelled some tertiary education management to surcharge students to raise funds for the completion of some vital GETFund projects (op cit.). A call for a review of the GETFund Act to ensure autonomy for the fund managers devoid of Government control is imperative (ibid).

4.8 Conclusion

This chapter has assessed the evolution of tertiary education from the period of self-Government in Ghana in 1951 and the efforts of the new leadership to expand and improve access to and quality of tertiary education to contribute to the socio-economic development in Ghana is explained. A brief assessment of Ghana's involvement in international bodies and treaties and a code of conduct that direct and regulate management of education institutions globally and their impact on educational institutions in Ghana is discussed. The major policy reform for tertiary education in Ghana which was preceded by the work of the Universities Rationalization Committee (URC) constituted in 1987/1988 with the recommendations implemented in 1991 have been elaborated on. This reform expanded higher education to include all post-secondary education and named it tertiary education. Regulatory bodies were also constituted mainly, National Council for Tertiary Education, and National Accreditation Board. The effects of these reforms in ensuring tertiary education restructuring and the granting of autonomy to the universities was discussed. The chapter mentioned funding challenges in public universities and explained the current funding model of cost-sharing in tertiary education institutions in Ghana. The chapter closed with a review of the performance of the Ghana Education Trust Fund (GETFund) and the observation of the National Union of Ghana Students (NUGS) on the GETFund implementation challenges.

CHAPTER FIVE RESEARCH METHODOLOGY

5.1 Introduction

This Chapter presents the research design and elaborates on the processes and procedures for gathering data, analyzing, interpreting, as well as reporting the study findings. Specifically, the chapter explains the adopted research design and approaches while giving the rationale for the choice, and the associated philosophical paradigm. A brief description of the universities included in the research are also outlined. Included is a discussion of the research population, sample techniques, a sample frame and sample characteristics. Data collection instruments and procedures are also discussed. Consequently, the validity and reliability of the instruments are also explained. The chapter further explains and outline both quantitative and qualitative data analysis tools and techniques adopted and concludes with the ethical issues of the research study.

5.2 Methodology

Research methodology is the design or framework adopted to systematically find solutions to the research problem which includes the processes and steps to be used by the researcher to study the research problem (Kothari 2004:8). The research methodology specifies and explains among other things, the design and methods/techniques used in a logical manner to solve the research problem (ibid.) and explains the theoretical/philosophical underpinning that guided this study.

The study used the Mixed Method methodology. According to Collins, Onwuegbuzie, & Jiao (2007:1); and Creswell and Plano Clark (2007:12) the mixed method approach is a combination of qualitative and quantitative research techniques into a single study to provide a complete and better understanding of the research problem. This design combines the strengths of each method to answer the research questions (Creswell et al 2011:5). In describing mixed methods, Johnson and Onwuegbuzie (2004:17) are of the view that: "*it is a class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study*". According to Ivancova et al. (2007:261), a mixed method involves a process of collecting, analyzing and 'mixing' quantitative and qualitative data at a stage in the research process within a single study to better understand a research problem.

information to answer the research questions. The emphasis of the approach indicates that at a point in time, or different phases of the study, quantitative and qualitative data or findings are fused or integrated for diverse reasons.

The major principles of the method as posited by Creswell and Plano Clark (2007:6-9) are that the researcher:

- Collects and analyzes quantitative and qualitative data of numeric and text information respectively;
- Mixing of data by the researcher is unique and vital to this approach so as to constitute a better and complete picture of the research problem, more than when qualitative and quantitative data stand as separate entities, and that the "methods should be mixed in a way that has complementary strengths and non-overlapping weaknesses" (Teddlie & Tashakkori 2009:238); and
- The mixed methods studies may include collecting and analyzing qualitative and quantitative data in a single or multiple study in a research project.

Despite the advantages of the mixed methods, it requires large amounts of resources and time. Specialised skills are also needed to gather, analyze and mix the quantitative and qualitative data collected for the study and can make its adoption cumbersome and expensive (De Vos et al. 2011:436). Again, the researcher must be conversant with multiple approaches and understand when to mix the two appropriately. According to Johnson and Onwuegbuzie (2004:21) details of the mixed method approach are not fully available and yet to be worked out completely by the methodologists including: how to interpret conflicting results, how to mix the paradigm and others. The difficulties notwithstanding, the method is very useful and have inherent strategies to minimise the difficulties (Creswell & Plano Clark 2007:10).

The features of mixed method studies really categorize the design methods into: Exploratory, Explanatory, Triangulation, and Embedded as espoused by Creswell and Plano Clark (2007:60-62). The exploratory method is a two-phase method used when the researcher first has to test one instrument because not all are available, and some variables are not known, which does not apply to this study. The explanatory design is also a two-phase method where qualitative data gathered

enhances the explanation of initial quantitative data and priority is on quantitative data, which is not the case with this study. The embedded design also works on the premise that different sets of research questions require different data sets, and that one data type acts as a supportive or secondary data to the other, this is also not applicable to this study. This study adopted the one-phased triangulation mixed methods design which uses both quantitative and qualitative methods at the same time with equal priority and weight to best understand the issues being studied (Ivankova 2007:266). The design gives equal priority and weight to both quantitative and qualitative and qualitative methods as illustrated in Figure 5.1:



Figure 5.1 Triangulation Mixed Method Design

Source: Adapted from Creswell & Plano Clark (2007:73).

Figure 5.1 indicates that both quantitative and qualitative data can be collected and analyzed separately and independently by involving experts from each traditional approach, and this necessitates team research (Creswell & Plano Clark 2007:66). This will enhance the generalizability of the research findings and recommendations.

The design implementation is straightforward and provides the opportunity for clarification and detailed information on quantitative and qualitative data. The use of both qualitative and quantitative data analysis enhances the interpretation of significant findings in the research (Onwuegbuzie & Leech, 2006). The triangulation design uses less time to complete compared to the sequential design. However, the design could, at times, be confusing with regards to the time needed to integrate the two data sets. Additionally, the process requires extra effort and much expertise to collect and analyze the different data sets. There is also the possibility of both data

giving different results on the same phenomenon which may call for additional data collection to resolve the disagreement or the databases will be revisited to iron out the differences (De Vos et al. 2011:443). It is however anticipated that the experts involved in the process could team up to resolve any challenge that would emerge.

5.3 Application and Relevance of the Mixed Method to the Study

The study used a mixed method design which makes it possible to collect both quantitative and qualitative data concurrently for the study, with each type of data complementing the other for a better understanding of the research problem than when a single method is used (Teddlie & Tashakkori 2009:238). Consequently, self-administered questionnaires were given out to academic heads of department, accounting professionals and student leaders to collect quantitative data. In-depth interviews were also conducted concurrently with university management, finance directors, labour union leaders, national students' leader and selected directors of government institutions for qualitative data (Creswell & Plano Clark 2007:6-9). After processing the raw data that has been collected, qualitative data was merged with quantitative numeric information to compare the transformed qualitative results with the quantitative dataset (Sandelowski, Voils, & Knafl 2009: 208-222). There were situations where conflicting information was noted, the detailed information and explanation given for qualitative data was reconciled with the quantitative data to help identify the reasonable and acceptable responses through deductive and inductive reasoning (Teddlie & Tashakkori 2009:238).

The design adopted made it possible to compare the different findings for both quantitative and qualitative data collected for any variations or agreements to establish a complete and well-explained conclusion, especially as both types of data answered the same research questions (Creswell & Plano Clark 2007). As the quantitative data indicated the current facts and realities of state funding decline in the universities, the qualitative information explained the reasons and effects of the subvention cuts on the universities. The method helped to develop a complete knowledge and understanding of state funding cuts and its effects on the mandate delivery of the universities which guided the appropriate recommendations to inform practice (ibid.). The approach further provided stronger evidence of the consequences and effects of state funding cuts and helped to draw conclusions through convergence and collaboration of the findings. Again, the method helped to explain the research

problem under investigation as it is and therefore minimized bias. This further improved the validity and quality of research output (Teddlie & Tashakkori (2009). Though the mixed method design was very relevant for a better understanding of the research problem, the resource implication was very high, and additional funds were needed to finance accommodation and sustenance of the researcher and field assistants. The researcher has to familiarize himself with both quantitative and qualitative research knowledge to implement the design effectively (De Vos et al. 2011:436). The design further required more time to implement compared to the use of either quantitative or qualitative method on their own (ibid.).

5.4 Quantitative and Qualitative Data

Data can be quantitative or qualitative, not in relation to their source but their features, and whether they could be reduced to numbers or in words and this determines their mode of collection, recording and analysis (Walliman 2011:71). Data recorded numerically, recorded and analyzed through statistical techniques is Quantitative and associated with Quantitative research. This type of data can be measured more accurately as it contains a form of magnitude that can be expressed in numbers. Data or information that cannot be reduced to numbers such as people's judgment, emotions, ideas, beliefs need to be described in words and recorded by the quality of the information, is called Qualitative data and linked to Qualitative research (ibid). Qualitative data cannot be accurately measured and is generally expressed in words and descriptive in character (op cit.). Invariably, qualitative research relies mostly on definition of the meaning of words, concepts and variables and their interrelationships, and depends on human interpretation and evaluation.

The qualitative methodology encompasses in its philosophical stance that it bridges postpositivist and social constructivist worldviews and makes the use of ontology and epistemology viable (Green 2007). It provides detailed information in the research context with a focus on voices of participants through quotes and give a depth of understanding of concepts (Creswell et al. 2011:4). It was expected that this method of research would enhance detailed gathering and analysis of information from the respondents who were academic heads, accounting professionals and student leaders about their perceptions, experiences and interpretations of the use of IGR in public universities. Quantitative methodology on the other hand is deductive research, which uses closed-ended and open-ended structured questionnaires to gather descriptive information in examining the relationships among variables (Cohen et al. 2008:197). These variables yield measurable numeric data that can be analyzed statistically to provide measurable evidence to help establish cause and effect (Creswell et al. 2011:4). This approach helped to identify trends in revenue inflows and expenditure outflows, effects of state cutbacks on funding on the operations of public universities, as well as effects of IGR on programs and activities of public universities.

5.5 Research Paradigm

Research paradigms are perceived as beliefs and practice systems that inform researchers on how to choose the questions they set out to answer in their study and the methods adopted to study the problem (Morgan 2007:49). According to Patton 1982 as cited in Morgan (2007:50), paradigms are frameworks for assessing research designs, measurement, analysis, and personal involvement of the researcher. Research paradigms are shared belief systems that affect the nature of knowledge sought by researchers and how the evidence gathered are interpreted (Morgan 2007:50). Thus, paradigms as worldviews stress the many factors that are considered before deciding on what and how to conduct a research study, and evidently, influencing how research questions are asked and answered. Mertens (2005 cited in Mackenzie & Knipe 2006:2) has espoused that a research paradigm represents the theoretical framework that influences how knowledge is studied and interpreted. Obviously, the research intent, motivation and expectations are influenced by the selected paradigm which determines the choice of research methodology, methods, literature and the research design (ibid.); the choice of the appropriate type of research paradigm is vital for the success of any research study. The research paradigm types include: epistemology/positivist, ontology/postpositivist, interpretivist/constructivist, transformative and pragmatism.

This research work adopted the mixed method which combines both quantitative and qualitative research methodology, and therefore, the pragmatist approach is very suitable for application (Morgan 2007:65). Pragmatism connotes a set of ideas that employ "what works" using diverse approaches including objective and subjective knowledge in a single research study (Creswell & Clark 2011:43). This is a hybrid of Epistemology/Positivist and Ontology/Postpositivist stances

of quantitative and qualitative methods respectively. Teddlie and Tashakkori (2009:7) define pragmatism as: "a deconstructive paradigm that debunks concepts such as 'truth' and 'reality' and focuses instead on 'what works' as the truth regarding the research questions under investigation. Pragmatism rejects the either/or choices associated with the paradigm wars, advocates for the use of mixed methods in research, and acknowledges that the values of the researcher plays a large role in interpretation of results". According to Tashakkori and Teddlie (2003a) many scholars and authors have accepted pragmatism as the paradigm for mixed method research as it permits researchers to adopt a pluralistic system to gather different types of data capable of answering the research questions (Creswell & Plano Clark 2011:46).

The features of pragmatism, according to Mertens (2005 cited in in Mackenzie & Knipe 2006:4) make it applicable to research that is problem-centered, pluralistic, real-world practical problems, mixed models, and facilitates identifying the consequences of actions. As this research study is focused on knowing personal experiences of academic heads, accounting professionals and student leaders in universities about the funding decline, and their actions towards the subvention decline which is a real problem, pragmatism paradigm is very appropriate (ibid.). Again, the gathering of primary statistical and non-statistical data from selected universities on internal revenue generation, justifies the use of the pragmatism approach in answering the research questions in this study. The pragmatism paradigm supports the mixed method research methodology being employed to reach the various respondents with diverse professional backgrounds to determine the cause-effect in terms of state subvention decline and internal revenue generation relationship and how these affect the mandate delivery of public universities (ibid.).

5.6 Research Population and Sampling

5.6.1 Research Population

The research population involves all persons which the research problem is concerned with and who qualify to be selected for the study, referred to as the sample frame (McBurney 2001:248). The sample frame is drawn from the accessible population which represents all potential people who have the qualities and attributes the research study is interested in (Arkava & Lane 1983:27). The population in this study is staff and students of public universities in Ghana. The study population also included the tertiary division of the Ministry of Education, Ministry of

Finance, the National Council for Tertiary Education, and the leadership of National Union of Ghana Students.

5.6.2 Sample and Sampling Procedure

The term 'sample' connotes the concurrent presence of the theoretical population of which the sample constitutes a smaller unit, or a set of respondents selected from the population (Gravetter & Forzano 2003:465). A sample is therefore the elements or units of the population selected for the actual study or a subset of the population drawn out for the research study (Unrau, Gabor & Grinnell 2007:279). The rationale for sampling is the often near impossibility of using the entire study population due to time and cost constraints (Sarantakos 2000:139). The use of samples could ensure accessing more accurate information than the use of the whole population because the available funds, time and efforts could be focused on better instruments, more detailed information, and well-trained interviewers or observers for better quality research and research outcomes (De Vos et al. 2011:224).

The important issue in sampling is for the researcher to demonstrate in his report the representativeness of the sample used. The two main sampling procedures are: Probability or Random sampling and Non-probability or Non-random sampling (Taherdoost 2016:20). With probability sampling every item in the population stands an equal chance of being selected for the study. The probability sampling procedure reduces bias in sample selection and the outcome of the research is more likely to be accurate and a true reflection of the entire population which makes generalization of findings applicable (ibid.). However, this sampling procedure can be very costly in terms of time, energy and financial resources required(ibid.). This sampling procedure is mostly used in quantitative studies. There are different probability sampling procedures/techniques which include simple random, stratified, cluster, systematic and multi stage sampling.

Non-probability sampling procedure on the other hand, does not offer equal opportunity of representation for all cases in the study (ibid. 22). The main objective of the non-probability sample procedure is the inclusion of some particular cases deemed relevant to the study rather than others (ibid.). Non-probability sampling is often applicable to case study research design

and qualitative research. The types of non-probability sampling procedures/techniques are accidental or convenience, purposive or judgmental, quota and quota sampling.

As the current research design adopts a mixed method approach where quantitative and qualitative methods are used, both probability and non-probability procedures are adopted as explained above. With the probability sample method, the stratified and multistage procedures are adopted, while with the non-probability sampling, the purposive or judgmental procedure is used as explained hereunder.

The stratified sampling technique is used when there is a heterogeneous population with different groups that are related to the study and should be represented (Bhattachejee 2012:67-69). The sample frame is divided into homogeneous, non-overlapping sub-groups and a simple random sample is drawn from each sub group (ibid.). This sampling technique makes possible a high degree of representation of the different strata of the population in the study, but it is time consuming and tedious to implement. Multi-stage sampling is the application of different single-stage sampling techniques. It involves the use of more than one sampling procedure in a particular study, such as the application of stratified and systematic techniques where the sample frame is stratified and a systematic sampling technique is used to select from each strata. Purposive/Accidental/Expert sampling is the selection of respondents through a non-random sample due to their expertise on the subject being studied (ibid.). This technique is very useful as experts who are very familiar with the subject of the study are used. It also makes their opinions more credible than those of non-experts. However, the study findings are not generalizable to the entire population (op cit.).

As the research design adopts mixed methods where quantitative and qualitative methods are used, both probability and non-probability procedure have been adopted as explained. With the probability sample method, the stratified and multistage procedures were adopted while the nonprobability sampling used purposive or judgmental procedure as explained hereunder.

5.6.3 Site Sampling

The choice of the research problem informs the area the study would be undertaken, and identification of the problem mandates the researcher to select a site that gives maximum opportunity to engage the research problem (Erlandson et al. 1993:53). Knowing the site set-up for the study is vital to enable the researcher to identify the possible challenges likely to emerge during the study, and to know the dominant local language (Druckman 2005:236-237). The ideal site for a research study is one that should be easily accessible, where respondents are supportive, and cooperation can be achieved, and there is a guarantee of the researcher's free movement to access the required information (De Vos 2011:332). There are nine (9) public universities spread across eight (8) of the ten (10) regions (provinces) in Ghana. Public universities are defined in this study to mean universities predominantly funded by the national government. These include: University of Ghana, Legon (Greater Accra Region); Kwame Nkrumah University of Science and Technology (KNUST) (Ashanti Region); University of Cape Coast (Central Region); University of Education (Central Region); University for Development Studies (Northern Region); University of Mines and Technology (Western Region); University of Health and Allied Sciences (Volta Region); University of Energy and Natural Resources (Brong-Ahafo Region); and University of Professional Studies (Greater Accra Region). Time and resources available to the researcher could not permit the engagement of all these public universities in the research study.

Consequently, the purposive non-probability sampling method was employed to select four (4) of these public universities located in four different regions for the study. These are: University of Ghana, Legon; Kwame Nkrumah University of Science and Technology (KNUST), Kumasi; University of Education (UEW), Winneba; and University for Development Studies (UDS), Tamale. The selection ensures fair geographical representation of public universities in Ghana, two each from the southern and northern zones. Each zone has two universities with each university more than twenty years old; with one operating the collegiate and the other faculty systems of administration. The selection of universities was further informed by the number of academic programs the university offers. The University of Ghana was selected from the southern sector as the premier and largest university in Ghana, established originally as the University College of the Gold Coast in 1948. Currently, it has about 97 academic departments, and operates the collegiate system (name was changed to University of Ghana by an Act of

Parliament, Act 79, 1961). Its original mandate was to train graduates in the liberal arts, social sciences, law, basic science, agriculture and medicine at the graduate and postgraduate levels (University of Ghana 1961).

The University of Education, Winneba was selected as the second site from southern Ghana due to its speciality in training professional educators for Ghana. Though not a very large university with 32 academic departments spread in four different campuses in Ghana, it is the only university in Ghana mandated to train professional teachers. The University of Education does not offer any other academic programs except education courses, unlike the other selected universities that offer other courses apart from its official mandated programs. It also represents universities operating the faculty system in the southern zone and is more than 20 years old. The Kwame Nkrumah University of Science and Technology (KNUST) was selected from the northern sector of Ghana. It is the second largest public university in Ghana after the University of Ghana, established in 1958, and is thus more than 20 years old. The KNUST is well noted for its specialty in engineering and natural sciences programs, as well as arts and built environment courses that are not offered at any other public university in Ghana. It is the only university in the northern zone that operates the collegiate system.

The University for Development Studies (UDS) was the second research area for the northern zone. It was established in 1986 and is the only university in the northern zone that is more than 20 years old which operates the faculty system of administration. The UDS, apart from focusing on poverty alleviation academic programs not offered in any other public university in Ghana, operates in a special and peculiar trimester system and is also touted as the pro-poor university in Ghana, and considered vital for this research study. The programs and disciplines offered by the universities played an important role in their selection, in addition to the geographical coverage. As elaborated by Patton (2002) this "critical case sampling" procedure he argues makes strategic sense, to choose sites that would offer optimum information with the greatest impact on knowledge to be generated. Again, focusing on the areas of concentration to select universities for the study due to inadequate resources to use all the public universities would be useful in drawing logical generalisation from the weight of evidence gathered from the study (ibid:236).

a. Sample Size

The stratified and probability proportionate size sampling was adopted to select respondents for quantitative survey data. Stratified sampling is the grouping of units of the population into homogeneous strata before sampling to improve representativeness of the sample size (Babbie 2004: 205). For probability sampling, the researcher grouped the population in each selected university into the following homogeneous strata: academic heads of department (AHODs), accounting professionals (APs), and academic department student associations (ADSA) to ensure that homogeneous groups were available for sampling. Further, as the sample frame of the AHODs, APs, and ADSA differs in each selected university, the probability proportionate size (PPS) method was used for the final sample size of these strata. The PPS is a multistage cluster sample in which clusters are selected with probability proportionate to their size (ibid: 213).

Using the Confidence Interval (CI) approach (Lyman & Longnecker 2001) to determine the sample size, assuming normally distributed data with Z=1.96 for 95% CI, and a margin of error of 0.5, the sample size for the selected study areas are shown on the table below:

Universities	AHODs (Academic)	ADSAs	Aps	TOTAL
Univ of Ghana	34	34	9	77
KNUST	32	32	11	75
UEW	15	15	5	35
UDS	17	17	4	38
Total	98	98	29	225

 Table 5.1: Sampling Size for Quantitative data

Source: Author's Construct (2015)

The purposive non-probability sampling was used to select respondents who are linked to management in the public universities and have the expertise and knowledge about university funding to provide reliable answers in the face-to-face in-depth interviews. These respondents include: principal officers²⁹ of the universities, provosts/deans, leaders of: universities workers unions, finance directors and National Union of Ghana Students (NUGS). Directors of stakeholder-government institutions considered for the study include: National Council for Tertiary Education (NCTE), Ministry of Education (MoE), and Ministry of Finance (MoF). These respondents were selected because of having links and insight into funding and in-depth

²⁹ Vice Chancellors, Pro-Vice Chancellors and Registrars.

knowledge on the operations of the universities. A total of 225 questionnaires in addition to 40 face-to-face semi-structured interviews were deployed for respondents (see Appendix 2 for details). According to Babbie (2004:78) a small sample of a large population can be more representative than a large sample of a small population.

5.7 Accessing Respondents

Commencement of field work to collect data needs permission from managers in charge of the organizations, and to access individuals to be engaged in the research study (Creswell & Plano Clark 2007:175). Kirk (1999:307) has opined that as much as possible, all would-be direct participants of the study should be informed while seeking for permission from the site. Researchers are however, cautioned that where the research objectives are known to many respondents, some are likely to manipulate responses and endanger the research outcome and should be avoided (De Vos 2011:333). The researcher in this study, therefore, formally communicated to the management of all the public universities, ministries and the National Union of Ghana Students leadership that were to be engaged for data collection. The application explained the purpose of the study and the fact that the study would not pose any threat to the institutions, and that the rights of the participants would be protected. Approval was granted by the leadership of these institutions/organisations, who wrote to officially grant permission and indicated the institutional contact person to assist the researcher. At the due date for the actual fieldwork, the researcher visited the contact persons (Finance Directors) as well as the signatory of the permission letters, the registrars of the public universities in this regard, and introduced himself as well as informed them of his presence for the fieldwork.

Permission to enter the site before commencement of the study does not automatically grant the researcher free access to all information needed, hence, the need to request for further permission at different stages of the study, as and when necessary (ibid.) Consequently, a formal letter was sent to the provosts/deans of the colleges, faculties and other state institutions sampled for the research and personal contact with them to inform them of the researcher's presence and commencement of the study. This action was appreciated by the sectional heads who wrote officially to inform all their constituent faculties/schools/departments heads to grant the researcher the needed audience and support. In the words of De Vos (2011:333), a researcher who is tactful and very open with the community, as well as accords the leadership of the

community with respect, would receive the needed support and fair access to the information needed. During the actual time of the administration of questionnaires and in-depth interviews, the respondents identified through the sampling procedure were briefed on the rationale for the study. They were assured of confidentiality and anonymity of whatever information they divulged as well as the option to opt out any time they wished, after which a consent letter was given to them to read and endorse to communicate their desire to be respondents, which they did. Some survey respondents opted out of the study, most of them were females, due to their tight work schedules.

5.8 Data Collection Method

The two sources of data for the research study were primary and secondary data. Primary data is the information that has been observed, experienced and recorded very closely to the phenomenon being studied and is considered closer to the truth, while the secondary data is the written sources of information that record and interpret the primary data (Walliman 2011:69). Primary data therefore tends to give more and reliable information than secondary data (ibid.). Though the availability of more primary data often guarantees a reliable information source, its high cost, and time-consuming nature and accessibility in organizing it become deterrent to many researchers (op cit). Primary data was collected using the survey method through structured questionnaires (with both close-ended and open-ended questions) which were self-administered to gather quantitative data. In- depth interviews (aided by interview guide) were also used to collect qualitative data. In-depth interviews allow flexibility and enable the researcher to probe further on relevant issues during the interview. Available education and university policy documents were also accessed for the study. Saunders et al. (2007), are of the view that the use of primary data ensures reliability of information as the data is gathered from the original source(s) and is especially relevant for this study.

Secondary data was accessed through documentary reviews and where available, university annual budgets, infrastructural projects reports, local and international journals, internet, and other related literature were consulted to complement the primary data. The collated secondary data were reviewed and reconciled with different data sources to authenticate their accuracy,

while others were also clarified with the offices from which they were generated. According to Walliman (2011:71) the secondary data quality depends to a large extent on the source and how it is presented. There is therefore the need to review and assess the quality of evidence, validity of argument presented, the reputation of the writer as well as comparing data from different sources to identify bias, inaccuracies and pure imaginations (ibid.).

5.9 Pilot-Testing

The evaluation of newly designed questionnaires through pre-testing is deemed essential before they are used in the main investigation (De Vos et al. 2011:195). The rationale for pilot testing is to correct errors of any kind at little cost (ibid.). Presser (2004:2) has intimated that pilot testing of research instruments is the best way to ensure that questionnaires are assessed and reviewed appropriately before commencing the main research study. Ambiguous questions may lead to non-comparable responses, leading questions could necessitate biased responses, and vague questions will give vague answers (De Vos et al. 2011:195). According to De Vos et al. (2011:195) pilot testing aims at two main objectives, namely: refining to improve the face and content validity of the questionnaire; and to project the time span needed to answer the questions.

The researcher used similar respondents in the University of Cape Coast to pre-test both the questionnaires and interview guide to check for corrections and improve upon its content as well as project the time needed to complete both questionnaires and interviews. Copies of the questionnaire were earlier given to three academic staff for editing and corrections made were effected before the pre-testing. A total of 15 student leaders, 12 academic heads, and 10 accounting professionals were issued with the questionnaires, which were completed and returned appropriately. The interview guides were pre-tested with four persons as follows: Director of Human Resource representing Top Management; Senior Accountant representing the Accounting Professionals; and two labour union leaders. The pre-testing was very useful to review the instruments. The preamble for the questionnaire was recommended by one of the heads whose expertise is in statistics. A few grammatical errors and ambiguous questions were identified and corrected before the final fieldwork commenced. Additionally, comments from the Accounting Professionals also informed to the questionnaire design.

5.10 Reliability and Validity

The need to measure and test scales to ensure that they are the exact phenomena being considered as well as measure the constructs consistently and precisely is imperative (Bhattacherjee 2012:55). Validity and reliability are the tools used to evaluate the research procedure for adequacy and accuracy of measurement in scientific social science research (ibid). In the view of Boudah (2011:64), reliability is vital for validity and trustworthiness. Clearly, the accuracy and validity of research data presentation enhance the credibility of research output. It is also clear that a measure could be reliable but not valid if it does consistently measure something other than the actual phenomenon, and again, there could be a valid but unreliable measure if it does not consistently measure the right phenomenon (Bhattacherjee 2012:55). Thus, reliability and validity are essential to ensure adequate measurement of the phenomenon of interest and must be an integral part of research to ensure very rich data (Burton and Bartlett 2009: 25).

5.10.1 Reliability

According to Bhattacherjee (2012:56) reliability is the rate at which a phenomenon measured is consistent or dependable. That is, measuring the same phenomenon multiple times with the same scale should yield the same results if the conditions of measurement are not varied. Reliability also means how consistent the research procedure is as well as how replicable the research findings could be (Wiersma 2000:8). In the words of Fink (2010:114) a reliable data collection method is often relatively free from measurement errors. Bhattacherjee (2012:56) has identified the following as the causes of unreliable social science research measurement:

- Researcher's/observer's subjective interpretation of the measuring phenomenon
- Researcher posing imprecise or unclear questions
- Researcher posing questions on issues that the respondent is not interested in or not familiar with.

Bhattacherjee (op cit) has opined that to ensure reliable measures the researcher should rely mostly on objective data collection techniques, specifically, the use of questionnaires; asking questions the respondent is familiar with or has knowledge of and is interested in answering; and, to avoid unclear or ambiguous questions.

5.10.2 Validity

Validity explains the level at which a measure sufficiently represents the underlying phenomenon it is expected to measure and not something different (Bhattacherjee 2012:58). Trochim (2006:48-50; 98-100) has explained validity as the degree to which research conclusions would hold for other persons at different places. In his estimation, Babbie (2007:146) refers to validity as the limit to which an empirical measure sufficiently reflects the actual meaning of the phenomenon being considered. Evidently, validity is concerned with two issues, namely, the fact that the instrument being used can measure the phenomenon in question, as well as measuring it accurately (De Vos et al. 2011:173). This means researchers should be concerned with the instrument's validities for the targeted measurement in the study. Pilottesting tools for data collection improve the validity of the research data (Punch 2003:42). Again, setting good questions maximizes the relationship between the answers recorded and the phenomena being measured (Fowler 2002:76). Also, the effective integration of quantitative and qualitative research design within a research study improves the validity (Onwuegbusie & Leech 2011:377).

Validity of study data in the study depended on the effective and precise construction of the questionnaire items and how accurately they were understood by the respondents. In order to increase the validity and reliability of the study outcome the following were monitored and improved upon during the research design and data gathering:

- The use of questionnaires with respondents well briefed on the content of the questionnaires to guide them to answer the questions during the data collection period.
- Questions were well defined to minimize misunderstanding and misinterpretation of the same questions by different respondents;
- Respondents were selected from experts with adequate knowledge of the issues involved in the study to ensure trustworthiness and dependability;
- Instruments for the study had adequate coverage of the research questions;

- Pre-testing of questionnaires and interview schedules to correct inconsistencies, clarified concepts likely to be misinterpreted and that measured what they were supposed to measure (Williams 2003);
- Effective and coherent recording of all evidence and documenting it for the analysis; (Ryan 2002)
- The study ensured that the questionnaire' items reflected the key research questions.

5.11 Data Analysis

This is the process of attaching meaning to the collected data (Merriam 2009:175). It is the process of ensuring order, pattern and meaning to bulky raw information collected (Marshall & Rossman 1999:150). Raw data from the field seems formless, meaningless, time-consuming, and data analysis is required to make sense and logic out of the research (Schwandt 2007:6). Mixed method research data analysis involves analysing the quantitative and qualitative information and applying techniques that mix the quantitative and qualitative data and results (Creswell & Plano Clark 2011:203). Antonius (2003:2) asserts that data collected is in response to some questions the researcher intends to answer, and this requires that the information gathered should be interpreted and assessed on how it addresses the research questions of the study (Teddlie & Tashakkori 2009:300).

The researcher adopted mixed method data analysis to improve upon the quality of conclusions drawn from both the quantitative and qualitative information (Teddlie & Tashakkori 2009). The quantitative data analysis for each research objective was supported with the corresponding qualitative data information. The qualitative data explained and gave meaning to the quantitative data collected to enhance conclusions drawn. Understandably, the integration of quantitative and qualitative data reduces subjective interpretation of research results (Chi 1997:271). Again, qualitative data enhances the understanding of value systems, beliefs and experiences of people while the quantitative data makes possible the use of statistical data to establish cause and effect relationships in the universities' funding challenges, which is the focus of this study (Kumar 2011: 104).

5.11.1 The Qualitative Data Analysis Process

Quantitative data analysis concerns numeric information which are mostly gathered through survey and measured in the form of intervals, ratios and others (Walliman 2011:113). It is the recorded data extracted from structured questionnaires. Numeric data collected from the field was prepared through checking and editing for data entry and coding purposes in the first instance (Sarantakos 2005:364). The rationale for coding was to reduce the data to a manageable form for presentation and analysis (Bryman & Bell 2011:249).

The Statistical Package for the Social Sciences (SPSS) Version 24 was applied to analyse the coded quantitative data into tables, percentages, and figures. The rationale was for visual presentation of data for quick understanding of the data. After the SPSS application the processed data was thoroughly edited and cleaned. Data presentation indicated the numeric scores and their percentages in each related category to give an overview of specific group(s) of data. Additionally, presentations in the form of tables, percentages and figures were aimed at equipping the researcher to be able to offer quick analytical descriptions and interpretation of data through descriptive statistical procedures. The use of more than one type of analytical technique in research can increase understanding of data (Leech & Onwuegbuzie 2007:563).

5.11.2 The Qualitative Data Analysis Process

Qualitative data analysis is a non-numerical examination and interpretation of observations for discovering underlying meanings and patterns of relationships (Babbie 2004:370). It enables the researcher to gain insight into the regular problematic funding experiences of public universities in Ghana and help to answer 'why' and 'how' of the study research questions (Leech & Onwuegbuzie 2007a). Marshall and Rossman (1999:150) describe qualitative data analysis as a search for general statements about relationships among groups of data. Unlike quantitative data analysis that establishes cause-effect relationships, qualitative analysis methods look at meaning of events or circumstances (Muijs 2011:9). Qualitative data analysis is therefore a process of transforming data collected through analytical procedures, into a clear, understandable, insightful, trustworthy and even original analysis.

The main tools for the qualitative analysis included: coding, data transcription and content analysis. In-depth interviews were recorded using voice recorders and transcribed immediately after the fieldwork while raw field notes were also properly documented to minimize the risk of losing valuable information as elucidated by Trochim (2006:133). Transcription was done in English which is the official language of the people in the research areas. The language used was informed by the thoughts of Temple (2002:844) who opined that: "concepts across languages vanish into the space between spoken otherness and written sameness". Thus, the use of any language other than the original language of the participants is likely to be misinterpreted with the original meaning lost. To organize piles of data collected, information was coded as a first step in conceptualizing the issues involved and to ensure that all vital issues were drawn on board without distortions. Qualitative analysis thus transformed data into findings by reducing the volume of raw information, lifting the vital information from the trivia, observing relevant patterns and designing a framework of disseminating the findings and revelations of the data (Patton 2002:432). At this stage text from transcribed data were cut and pasted under different thematic headings and sub groupings to identify meaning connections, relationships and trends. These were then utilized to enhance logical reasoning, argumentation, deliberation, and conclusions.

5.12 Ethical Considerations

Research studies should have guiding principles for all parties involved to ensure mutual trust, acceptance, cooperation, well-defined and accepted conventions, and more so, if human beings are the objects of study (De Vos et al. 2011:113). According to De Vos et al. (2011:114) ethics is "a set of moral principles which is suggested by an individual or group, is subsequently widely accepted and which offers rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students". Ethical guidelines prescribe the acceptable standards which becomes the basis upon which researchers should assess their own conduct and be internalized in the personality of the researcher as well as become his/her total lifestyle (Bless et al. 2006:140). It is opined that data should not be accessed by the researcher at the expense of human beings and this makes ethical issues in social science very pervasive and complex (ibid.). According to Gravetter and Forzano (2003:60) researchers are expected to adhere to two basic ethical

responsibilities, namely: responsibility to both human and non-human stakeholders who participate in the research study; and responsibility to the discipline of science to ensure accuracy and honesty in their research reportage (ibid: 114).

The researcher was very cautious of the ethical issues guiding the study and the major ethical considerations for the study have been enumerated hereunder (De Vos et al. 2011:115-127; Kalof, Dan & Dietz 2008:49):

- Respondents were not exposed to any form of physical and/or psychological harm for participating in the study;
- Voluntary participation of respondents and the right to withdraw at any point in time with the researcher not coercing or forcing any person to participate;
- Informed consent sought from prospective respondents by giving adequate information on the study and allowing him/her the opportunity to decide;
- No deception of respondents through misleading information, withholding or misrepresenting facts to make the respondent participate in the study;
- Respondents privacy/anonymity/confidentiality were not violated by divulging personal information of respondents to another party which infringes the right of the respondent, to motivate the validity of the research and reassures truthful responses; and
- Student respondents were given food parcels for one day to enable them to concentrate on answering the questionnaires without moving out in search for food. The food parcel was not a compensation for their involvement in the study but to help them concentrate on answering the questions once they started.

Focusing on the ethical concerns of the study, the researcher at the onset of the study issued clearly written letters of explanation about the study to obtain informed consent from all participants, including seeking permission from the participating institutions which were granted (Mockler 2007:95; Davies 2010:134).

The researcher was conscious of the possible dangers of anonymity, privacy and confidentiality for respondents resulting from personal information storage and processing, including computer and paper files, audio and videotapes, and other information which directly identifies an individual. Participants were therefore educated on the type of personal information to be collected, the purpose for which they would be collected, and to whom it will be disclosed. In cases where confidentiality was threatened, relevant records would be destroyed. To maintain confidentiality, the participants were not identified in any way from the outcomes of the study. Therefore, there was no naming and use of proper names of participants in the study. The researcher first obtained gatekeepers' letters from the universities involved and a consent form which explained the study and was signed by all respondents, before the instruments were administered. According to Blaikie (2010:31) ensuring anonymity and confidentiality of data collected is very necessary. In respect of how feedback would be given to participants after the study was completed, information obtained through the study would be presented to the universities and institutions in the form of a finished thesis, oral presentations, and publication. This will provide feedback to the research participants.

5.13 Conclusion

The chapter has explained and outlined the framework used by the researcher to study the research problem. Specifically, the mixed method design which embraces the use of both quantitative and qualitative methods was examined. The justification for the use of these methods was to ensure that statistical data which were needed to establish the cause-effect relationships was gathered, while qualitative data gave explanation to the quantitative data and why things happened in a particular way. Obviously, the use of either quantitative or qualitative data could not alone have given the cause-effect relationship of subvention decline in the universities, nor explained why and how the subvention decline did occur. Again, the use of Pragmatism as the philosophical underpinning with its practical implications and a focus on triangulation as the main research method framework was considered very appropriate for a practical problem-centred study of declining state subvention in universities. Again, the pluralistic feature of the framework made it appropriate for the study which involved varied groups of respondents with different professional backgrounds. Details of the triangulation design and how it was deployed in the study was well elaborated in Section 5.2 and supported with graphical illustration (Figure 5.1).

The chapter further explained the study population and sampling procedure, with the study population being from public universities in Ghana. Sampling procedure and how nonprobability purposive sampling was adopted to select the four universities for the study as explained. A stratified and probability proportionate sampling method was used to select the sample size of respondents for quantitative data collection. Additionally, data collection methods and processes for gathering primary and secondary data and their relevance were elucidated. The primary data collection method employed survey and in-depth interviews for quantitative and qualitative data respectively. The researcher has further outlined data analysis processes, techniques, and tools adopted for quantitative and qualitative data collection and analysis. Specific mention was made of the use of coding and SPSS Version 24 to reduce raw quantitative data into tables, frequencies, percentages, and charts for analysis. Qualitative data was also transcribed and grouped into themes to aid content analysis. The chapter ended with a brief note on ethical clearance issues and the processes the researcher underwent in order to conduct the fieldwork in accordance with the prescribed ethical policies of the University of KwaZulu-Natal. Efforts to ensure confidentiality, anonymity and to make participation voluntary were explained; and how research findings can be made available to respondents has been explained.

CHAPTER SIX

STATE SUBVENTION DECLINE IN PUBLIC UNIVERSITIES IN GHANA: STAFF AND STUDENT PERSPECTIVES

6.1 Introduction

Chapter Six presents the findings from the survey questionnaires and semi-structured interviews. The survey questionnaires were self-administered to heads of academic departments (HADs), accounting professionals (APs) and student associations' leaders (SALs) to access measurable numerical information to describe the attitudes, actions, behaviors and experiences of the respondents with regards to state funding cuts in the universities. The heads of academic departments and students' association leaders' survey respondents were based in the academic departments and provided information on their departments only. The accounting professionals however, were faculty accounts heads and provided information that covered all departments in the faculty. The in-depth interviews targeted respondents' observations, underlying meanings and interpretations, as well as the why and how of state subvention cuts in the universities. The in-depth interviews target for state subvention cuts in the universities.

In-depth interviews were conducted with university management (registrars, provosts and deans), leaders of workers unions (UTAG, GAUA, FUSSAG and TEWU), finance directors, and the President of National Union of Ghana Students (NUGS). Three selected government stakeholder-institutions officials interviewed were the National Council for Tertiary Education (NCTE), Ministry of Finance, and Ministry of Education. The in-depth interviews were administered among five different groups with each group responding to the same interview guide and coded as follows:

- University Management (UM): Registrars (UM01), Provosts (UM02), Deans (UM03)
- Finance Directors: FD (FD01)
- Leaders of Workers Unions (LU): UTAG (LU01), GAUA (LU02), FUSSAG (LU03), TEWU (LU04)
- President of National Union of Ghana Students: NP (NP01)
- National Council for Tertiary Education: NCTE (NC01)
- Ministry of Finance: MF (MF01)
• Ministry of Education: ME (ME01).

This chapter presents the study findings which investigated: "State subvention cuts in public universities in Ghana: Staff and students perspectives". It highlights the experiences of staff and students in relation to state subvention cuts to the universities vis-à-vis the universities' core mandate of teaching, learning, research and outreach. The challenges the universities encounter as they access and use financial resources to manage its mandate, as well as the opportunities that could be explored to improve upon their funding are also covered in this report. The study covered four public universities which included: University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), University of Education (UEW), and University for Development Studies (UDS). The presentation of the findings starts with the survey data supported by qualitative data gathered from the interviews conducted. The purpose was to answer the underpinning research questions of the study which were:

- i. What are the current experiences of staff and students on state funding cuts of public universities in Ghana?
- ii. What are the funding challenges and opportunities in public universities in Ghana?

Two themes were further developed from the research questions above for the study as follows: Experiences of staff and students on state funding decline and mandate delivery in public universities in Ghana state funding challenges, and Opportunities in public universities in Ghana.

6.2 **Response Rate**

A total number of 225 survey questionnaires were distributed to respondents in the four public universities and 193 were completed and returned, representing an 85.8 percent response rate. None of the returned questionnaires was spoilt, but a few respondents did not answer all questions which recorded as missing items in the data analysis. Table 6.1 below presents the response rate for the questionnaires administrated.

Respondents	Frequency	Percentage
Heads of Academic Departments (HAD)	75	76.5
Leaders of Academic Departments' Student Associations	89	90.8
(ADSA)		
Accounting Professionals (APs)	29	100.0
Total	193	85.8

Table 6.1 Summary of Survey Responses: Questionnaires

Source: Field Data (2017).

With regards to the in-depth interviews administration, a total of 40 respondents were selected to participate in the study; 36 from the four selected public universities, one from the National Union of Ghana Students, and three (3) from Government stakeholder-institutions. All respondents from NUGS and Government stakeholder-institutions were available to be interviewed, while 25 out of the 36 respondents from the public universities participated in the study. The interview response rate among the different groups of respondents ranged from 50 to 100 percent. The breakdown is as follows: University Management: nine (9) (56.3%); Labour Union Chairs: 12 (75%); Finance Officers: four (4) (100%); NUGS President: one (1) (100%); and Government stakeholder-institutions: three (3) (100%). An average response rate of 72.5 percent was recorded. The same interview guide was used for each group of respondents. Because statistical generalizability is not the objective, non-response rate is not important in qualitative research (Verhoeven 2011:213).

6.3 **Profile of Respondents**

Seven questions were asked covering age, gender, marital status, educational attainment, institution of work or study, designation, and length of service.

6.3.1 Age

Age Distribution of all Respondents

The age structure of respondents was grouped into five categories, starting from the youngest age cohort of up to 30 years, with the oldest being 61 years and above. The above 60 years old was included because of the contract appointment for academic staff after retirement age of 60 years;

some of the retired staff are re-appointed to leadership positions because of their special expertise the universities intend to tap.



Figure 6.1: Age Distribution of all Respondents

Figure 6.1 shows the age distribution of all categories of respondents. A total of 55.6 percent of survey respondents were 40 years or less; with 45.9 percent being 30 years or less, followed by 43.9 percent of respondents in the 41 to 60 years age cohort.

a. Age Distribution of Staff Respondents

Figure 6.2 illustrates the age structure of respondents who were staff. Respondents who were 51-60 years old constituted 41.1 percent of the total number of staff respondents, while those aged 41-50 years formed 39.3 percent, with 31-40 constituting 15.9 percent. A combination of the two age cohorts, 41-50; and 51-60 constituted 80.4 percent, while 30-40 age cohort were 18.7 percent. As to be expected, staff respondents fell into the older age categories as compared to students.

Source: Field Data (2017)



Source: Field Data (2017)

6.3.2 Gender

Table 6.2 below shows that 83.6 percent of respondents were males and 16. 4 percent were female. Student respondents constituted 45.4 percent, while the academic heads were 38.3 percent and accounting professionals were 16.3 percent. Among the three groups, the female respondents were few, recording 3.6, 3.6 and 9.2 percent for academic heads, accounting professionals and student leaders respectively, compared with their male counterparts of 34.7, 12.7 and 36.2 percent of academic heads, accounting professionals and student leaders respectively. The in-depth interviews recorded a gender representation of 79.3 and 20.7 percent for males and females respectively. Thus, males far outnumbered females.

Table 6.2 Gender of Survey Respondents

Respondents	Gender						
	Males (Percent)	Female (Percent)	Total (Percent)				
Academic Heads	34.7	3.6	38.3				
Accounting Professionals	12.7	3.6	16.3				
Student Leaders	36.2	9.2	45.4				
Total	83.6	16.4	100				

Source: Field Data (2017)

6.3.3 Staff Educational Qualification

Table 6.3 below shows the educational qualifications of the academic heads and accounting professionals who were involved in the study.

Educational	Academic Heads/Accounting professionals					
Qualification	Academic Heads	Accounting Professionals	Total			
	Percent	Percent	Percent			
Terminal Degree	60.7	0	60.7			
Masters' Degree	9.4	19.6	29			
First Degree	0	9.4	9.4			
Diploma	0	0.9	0.9			

Table 6.3 Staff Educational Qualification

above shows that 60.7 percent of the academic heads respondents had PhD degrees while 9.4 percent of the same category of staff had masters' degree. Further, 19.6 percent of the accounting professionals had a masters' degree, and 9.4 percent also had a first degree. The accounting professionals by the standards of their practice were expected to have a professional qualification in addition to the academic qualification. Figure 6.3 below indicates that 56.2 percent of the accounting professionals have also completed their professional education and certificated accordingly, while 12.5 percent were enrolled in ongoing programs. A non-response rate of 31.2 percent was recorded, which was very high. It is not clear why so many respondents chose to not reveal their educational achievements.

Figure 6.3 Professional Qualification of Accounting Staff



6.3.4 Rank and Length of Service of Staff Respondents

Table 6.4 below shows that 76 percent of the academic heads respondents were senior lecturers, with 61.3 percent of the 76 percent having worked at their universities for 6 to 20 years. The professorial rank constituted 16 percent of these respondents and who had worked from 6 to 31 years, with 2.7 percent of the full professors among them having worked between 21 to 25 years. The associate professors and senior lecturers among the respondents who had worked up to 31 years constituted 4 percent, while 14.7 percent of respondents who were lecturers, senior lecturers or associate professors had worked up to 5 years. The accounting professional ranks were dominated by accountants who constituted 43.7 percent and had worked between 1 to 20 years in the universities. Senior Accountants formed 12.5 percent of the accounting work force and had worked from 6 to 25 years. The Internal Auditor was the highest office holder among the accounting professionals and had worked up to 10 years in the university. It is worth stating that most of the audit staff heading the various sections of the Internal Audit Directorate were senior staff and 34.4 percent of the accounting professionals who participated in the study belonged to this category of staff; from Audit Assistant to Chief Audit Assistant (Internal Audit Senior Staff).

Table 6.4 Rank and Length of Service of Staff Respondents

Academic Heads		Length of Service (Years)						
Rank	1-5	6-10	11-15	16-20	21-25	26-30	31+	No. &
								Percent
Lecturer	4	2	0	0	0	0	0	6 (8%)
Senior Lecturer	4	16	15	15	5	1	1	57 (76%)
Assoc. Prof.	3	1	1	2	1	0	2	10 (13.3%)
Professor	0	0	0	0	2	0	0	2 (2.7%)
Total	11	19	16	17	8	1	3	75 (100%)
Accounting								
Professionals Rank]	Length o	f Service	e (Years)		
Audit Asst.	3	1	0	0	0	0	0	4 (12.5%)
Snr. Audit Asst.	1	1	0	0	0	0	0	2 (6.3%)
Principal Audit Asst.	0	2	1	0	1	0	0	4 (12.5%)
Chief Audit Asst.	0	0	1	0	0	0	0	1 (3.1%)
Asst. Internal	2	0	0	0	0	0	0	2 (6.3%)
Auditor								
Accountant	3	4	4	3	0	0	0	14 (43.7%)
Snr. Accountant	0	2	1		1	0	0	4 (12.5%)
Internal Auditor	0	1	0	0	0	0	0	1 (3.1%)
Total	9	11	7	3	2	0	0	32 (100%)

Source: Field Data (2017)

6.4 Experiences of Staff and Students on State Funding of Public Universities

This section addresses the first research question: What are the current experiences of staff and students with regards to state funding of public universities in Ghana? The focus of this section will be on staff and student perceptions, impressions, practical knowledge, understanding and feelings about state subvention cuts and the delivery of the universities core mandate of teaching, learning, research, and community engagement. How the cuts are managed to deliver the core mandate in the universities, as well as the effects and consequences of managing the subvention cuts on staff and students are analyzed. Findings from staff and student experiences are reported under the sub-theme Subvention Decline and Mandate Delivery.

6.4.1 Subvention Decline and Mandate Deliver: Experiences of Academic Heads

6.4.1.1 Reasons for State Funding Decline and Justification for Reason

With the notion of government subvention decline established in the introductory chapter, academic heads survey respondents expressed their views on the main reason for the decline and whether the reason was justified by the current economic imperatives worldwide.

a. National Financial Crisis and State Funding Decline

Figure 6.4 shows respondents' feedback to question 8 on the extent to which respondents agree or disagree that there is a national financial crisis resulting in state reduction in universities funding. Figure 6.4 below shows that respondents who agreed that funding cuts to public universities was necessitated by a national financial crisis constituted 64 percent, while 26.7 percent disagreed, with 9.3 percent remained neutral. The majority agreed / strongly agreed **Figure 6.4 National Financial Crisis and Subvention Reduction**



b. Explanation of the Reason for Subvention Decline

Respondents answered on a Likert-type response to question 9 explaining the reason for the state funding decline to the universities. Table 6.5 below indicates that 93.3 percent of respondents overwhelmingly agreed that the reduction of state subvention to public universities is attributable to the bad national economy. Further, 56 percent of respondents agreed that fully funded public universities are unsustainable in the current world economic order while 28 percent disagreed

that fully funded public universities are not sustainable, with 16 per cent undecided. Respondents who agreed that delivering university education through the free market system does not warrant state funding constituted 68 percent, while 32 percent of respondents disagreed with 17.3 percent undecided. Apparently, 68 percent of respondents indicated that pressure on the state for social services contributed to declining state subvention to public universities while 18.6 percent disagreed with 13.3 percent of respondents were undecided. Further, 50.6 percent of respondents disagreed that university education is a private good with recipients being primary beneficiaries, but 34.6 percent of respondents considered university education as a private good with the recipients being the primary beneficiaries and should contribute to their training. Finally, 65.3 percent of respondents did not accept the idea of recipients of university education paying the full cost of their university training compared with 22.6 percent of who agreed that university education beneficiaries should pay the full cost of their university education while 12 percent were undecided.

Reasons for Reduction in State	Strongly	Agree	Undecided	Disagree	Strongly	Total
Subvention to Universities	Agree				Disagree	
	Percent	Percent	Percent	Percent	Percent	
Bad economic situation affects	68	25.3	2.7	2.7	1.3	100
public grants to universities						
Fully funded public	24	32	16	10.7	17.3	100
universities unsustainable						
University education delivery	25.3	25.3	17.3	20	12	100
through free market system						
needs no public funding						
Pressure on demand for social	13.3	54.7	13.3	9.3	9.3	100
services affect public grant to						
the universities						
University education is a	9.3	25.3	14.7	25.3	25.3	100
private good and recipient is						
the primary beneficiary						
University education recipient	9.3	13.3	12	33.3	32	100
should pay full cost						

 Table 6.5 Explanation of the Reasons for Decline in State Subvention to the

 Universities

Source: Field Data (2017)

Respondents of in-depth interviews expressed their understanding and feelings on subvention decline vis-à-vis the mandate delivery of the universities and explained that:

"The decline in state subvention to public universities was not because the government does not appreciate the vital role of university education in nation building, but inadequate financial resources of the state coupled with the need to ensure a vibrant basic education to feed tertiary education necessitate increasing resources at the basic education level. The normal trend is that, the basic education should be bigger because we have a growing population. We have many children than adults, if you have many children produced and they are not being catered for in terms of education then you are not feeding the country very well, you are producing illiterates. If they all have basic education, it is assumed that agriculture will improve, and the economy will become better" (UM02)

Another respondent indicated that:

"The cost of producing one university graduate can produce ten basic education graduates and the World Bank justifiably recommends that in the mists of scarce financial resources developing economies focus on education should be more at the basic up to the Senior High School level for cost effectiveness. As employment opportunities for university graduates far outstrip that of basic education graduates, beneficiaries of university education and their parents are willing to contribute financially to attain higher education degrees for a promising middle-class life. Government should therefore apply cost sharing in university education where parents are ready to contribute while state investment in basic education is expanded to ensuring literacy and numeracy for all citizens; skills that is considered very useful in the agricultural sector and could enhance growth in agriculture development where majority of the citizenry earn their livelihood. There are certain people who cannot or be able to pay for tertiary education, however, there are some who can afford it. So that is where the level of subsidy will have to come" (UM02).

A respondent remarked that:

"The core business of the university is the training of professionals and other practitioners through teaching, research and dissemination of research results as well as providing community outreach for national development for require adequate funding but the only support from the state which is even inadequate, is to pay salaries and provide some infrastructure. But in training, you need staff and to be able to attract quality staff, you have to have certain infrastructure, it is not just the salary, but you should provide a comfortable environment for the staff to work" (UM03)

In explaining how subvention decline makes the work delivery difficult, a respondent stated:

"Public subvention cuts affect our services delivery. Now we don't get anything from subvention for materials we use for cleaning, main administration and the others. So, what it means is that we have to get money somewhere to do that so at the end of the day the internal generated fund is going to support that, and we have little to do other things. As I mentioned to you, apart from payment of salaries, they don't pay anything. So, what about maintenance, works and all these things? They don't give anything for service and other things. So, it is the fees that the students are paying that funds the universities operations. So, it is not an easy thing" (LU02)

Commenting on the state subvention decline and the difficulties the universities encounter in their mandate delivery, a respondent indicated that:

"Public universities in Ghana survive mostly on IGR generation as government restricts itself to the payment of staff salaries which has implications on the institutions, staff and students. The institutions have to stretch itself beyond reasonable bounds to be able to generate funds to invest into infrastructure, equipment and to some extent even paying some categories of workers. In the face of dwindling government funds to the university, the government has also of late put in place policy to restrict recruitment into the institutions, so for the past five years or so or more, recruitment has not been effectively done to the universities. At a point, it was government policy that public universities are to be weaned off government subvention. That for me will have been one way of freeing the universities to do what they can do best - charge tuition fees to be able to run as normal institutions as it's done elsewhere - but the social implications are also there that if you do so then quite a number of our children may not be able to have university education but education is not a privilege but it is rather a right" (LU01).

6.4.1.2 Managing the Funding Decline

The state decline in funding support makes it expedient for the universities to design appropriate means to operate and sustain their operations. The operational modalities are the subject of discussion.

a. Commercialization of Public Universities

Table 6.6 shows respondents' feedback to question 10 which asked if they would like government to declare public universities independent business organizations with the intent of increasing internally generated revenue (IGR). Responses tabulated in Table 6.6 show that 76 percent of respondents opposed commercialization of public universities with the UG and KNUST recording the highest No responses of 26.7 and 25.3 percent respectively, while UEW and UDS recorded 16 and 8 percent of the No responses respectively. The highest response rate of 34.7 percent was recorded by the UG, with the KNUST following with 28 percent.

	Decision on Marketization					
Institutions	YES	NO	DON'T	TOTAL		
			KNOW			
	PERCENT	PERCENT	PERCENT	PERCENT		
UG	6.7	26.7	1.3	34.7		
KNUST	2.7	25.3	-	28		
UEW	-	16	4	20		
UDS	6.7	8	2.7	17.7		
TOTAL	16.1	76	8	100		

Table 6.6 Commercialization of Public Universities

Source: Field Data (2017)

b. Options to Manage Subvention Decline

Figure 6.5 below gives responses to question 11 on what should be done to minimize the effects of subvention decline while managing the universities as public institutions. Respondents that supported public universities intensifying commercial activities to raise IGR while maintaining their public status constituted 46.7 percent, while 36 percent of respondents recommended that smaller academic departments should be combined to effectively manage public universities and reduce costs under the current scarcity of resources. However, 8 percent of respondents each preferred to either close down some academic departments or do nothing to salvage the situation; the last option is to merge with other universities, which recorded 1.3 percent.



Figure 6.5 Options to Manage Effects of Subvention Cuts

Source: Field Data (2017)

c. Accessing Funds Through Staff Consultancy /Supplementary Income

Table 6.7 indicates responses to question 12 about academic heads who have supplementary income from their involvement in research/consultancy activities. Respondents who confirmed that they earn additional income beyond their official work earnings from consultancies constituted 54.7 percent, while 38.7 percent indicated that there is no such income earned beyond their official salaries. Among the institutions, the KNUST recorded 18.7 percent of academic staff who earned supplementary income with the UG being second with 16 percent of total respondents. Apparently, the UG recorded the largest percentage of 17.3 percent of respondents that do not earn any extra income outside their official job; and 16 percent of staff who earn supplementary income (16 percent) in the same university. The UDS also recorded 10.6 percent of respondents who were not earning supplementary income, more than those who enjoy the facility in the same university.

	Earning of Supplementary Income through						
Institutions	Consultancy	Consultancy/Research Services					
	YES	NO	DON'T	TOTAL			
			KNOW				
	PERCENT	PERCENT	PERCENT	PERCENT			
UG	16	17.3	1.3	34.6			
KNUST	18.7	6.7	2.7	28.1			
UEW	13.3	4	2.7	20			
UDS	6.7	10.6	-	17.3			
TOTAL	54.7	38.6	6.7	100			

 Table 6.7 Accessing Funds through Staff Consultancy Supplementary Income by Institution

Source: Field Data (2017)

d. Management Awareness of Staff Consultancy Services

Follow up questions 12 and 13 asked respondents whether university management was aware of staff being engaged in consultancy services for the purposes of their financial commitment to the universities. Table 6.7 above indicates that 54.7 percent of respondents confirmed they earn supplementary income, while 40 percent do not earn supplementary income, with 5.3 percent unable to disclose any information. As to whether the university management is aware of their supplementary income source, 29.3 percent of respondents indicated yes, while 20 percent said no, with 50.7 percent stating that they do not know if management was aware of their supplementary income source. Evidently, 70.7 percent of respondents were earning supplementary income but not honoring their financial commitment to the universities.

	1.3	4	34.7	40		
No	1.0					
Yes	28	16	10.7	54.7		
	Percent	Percent	Percent	Percent		
Income	Yes	Yes No Don't Know		Total		
Staff Supplementary	Management Awareness of Supplementary Income					

 Table 6.8 Management Awareness of Staff Consultancy Services

Source: Field Data (2017)

In explaining staff involvement in consultancies for personal supplementary income a respondent explained that:

"Universities management exploit our labour for IGR through sandwich programs, consultancy services and others to the extent of sacrificing our annual leave days and holidays. However, we do not benefit directly from the sweat, all in the name of utilizing accrued returns to develop the entire university which should be the responsibility of the state" (LU01).

Another respondent stated that:

"University management even extend the exploitation to the consultancy services to the dissatisfaction of fund winners in their effort to access extra funds to minimize the financial constraint in the university. Sometimes university management will tell you that they are going to use university rates in paying you, though you have indicated the rate due you in the contract and duly approved by the grantor with funds transferred into the university accounts. Where even the grant is paid, many of the grantors maximum institutional overhead is five percent but the university has a policy that it should be ten percent, which means that the extra five percent must come direct from the project funds and those who have had such experiences in running such research consultancies no longer want to continue because if the project is awarded and the funds is released they would be frustrated with the use of the money so why should I worry myself" (LU01).

Another respondent indicated that:

"These days individual faculty is becoming selfish. Staff who get into consultancy and do not inform the university about the projects grants they win for the university to access its fair share. Staff are using university facilities to do their personal consultancies, yet they don't want to involve the universities; that means, the university's IGR is going to fall" (LU01).

6.4.1.3 Effects of State Subvention Decline on Mandate Delivery

The effects of state funding decline on academic heads in the discharge of their roles and responsibilities is the focus of this section.

a. State Funding Decline and Job Security

Respondents answered question 14 about their fear of job loss through redundancy should the state funding decline result in the university closing some academic departments or merging with other universities. Table 6.9 below shows that 76 percent of respondents indicated that they had no fear of being declared redundant or of job losses, while 18.7 percent expressed fear of losing their jobs.

Funding Cuts and	Percent
Job Security	
Yes	18.7
No	76
Don't Know	5.3
Total	100

Table 6.9 State Funding Decline and Job Security

Source: Field Data (2017)

b. Marketization and Changing Staff Role by Qualification

Respondents were asked in questions 4 and 15 if there were change(s) in their roles resulting from marketization in the universities, in relation to their academic qualifications. Table 6.10 below shows that 60 percent of respondents indicated no change in their roles, compared to 28 percent whose roles have changed, while 12 percent indicated don't know. Some 50.7 percent of terminal degree holders in the universities had no changing roles, with 25.3 percent of their counterparts (PhD holders) have had their roles changed. While 9.3 percent of respondents with masters' degree stated that their roles have not changed, 2.7 percent of masters' degree holders confirmed that their roles have changed. Respondents with terminal degrees who responded to the issue constituted 86.7 percent in contrast to 13.3 percent of respondents with masters' degrees.

Academic	Change in Role through Marketization					
Qualification	Yes No Don't Kno		Don't Know	Total		
	Percent	Percent	Percent	Percent		
Masters' Degree	2.7	9.3	1.3	13.3		
PhD Degree	25.3	50.7	10.7	86.7		
Total	28	60	12	100		

Table 6.10 Marketization and Changing Staff Role by Academic Qualification

Source: Field Data (2017)

c. Commercialization and Conflicts among Staff and Managers

Figure 6.6 below shows respondents' feedback to question 16 on any observed conflict between some public university managers or leaders and staff in terms of job function or role as a result of commercial activities. Respondents who have not observed any conflict constituted 61.3 percent, while 30.7 percent of respondents confirmed that conflict does exist, and 8 percent who do not know whether conflict exists or not.



Figure 6.6 Commercialization and Conflicts among Staff and Managers

In responding to conflicts between staff and university management resulting from staff roles in commercial activities and IGR mobilization, a respondent stated that:

"Staff of the universities engage in IGR activities with the expectation that adequate academic facilities and offices would be made available to enhance our quality delivery. And anything contrary creates tension and conflict between staff and management. For instance, if staff say "we want laptops" and management say there is no money for the laptops, the next time you see that management has gone to buy a new vehicle for somebody in management, the staff will not be happy. But it could be that from the management point of view, they might think that the buying of the car is more immediate than buying the laptop" (LU01).

Source: Field Data (2017)

d. Commercialization and Staff Workload

Respondents were asked in question 17 about how manageable their teaching load at the university is. Figure 6.7 below indicates that 41.3 percent of respondents see their workload as very manageable (very do-able or convenient), with the majority of respondents, constituting 57.3 percent, indicating that their workload is moderately manageable (averagely doable).





In response to funding decline with its resultant commercialization and increased workload, one respondent remarked that:

"We are affected as I said earlier on, we don't have the required man-power to be able to discharge our duties, we don't have the equipment to discharge our duties, we don't have the motivation to be able to discharge our duties. We have too many things to do, no time to rest, there is fatigue and as a result, we are also not well remunerated and so, the job is not attractive. Even when you advertise for new staff, only a few show interests because the money is not here. It makes it difficult to develop quality if you don't have the equipment, the needed resources, the needed man-power and all that and the few people who are on the ground are over-stressed, then, of course, it's not too difficult to imagine what happens to the quality of whatever is done" (LU01)

Source: Field Data (2017)

6.4.2 Consequences of State Funding Decline on Mandate Delivery: Experiences of Accounting Professionals

The accounting professionals expressed their practical knowledge and feelings about the consequences of state subvention decline on the mandate of the universities from two perspectives: first, from the perspective of staff in the discharge of their assigned roles and responsibilities; and second, from the perspective of the university as an institution with a core mandate to deliver teaching, learning, research and community engagement.

6.4.2.1 Consequences of State Funding Decline on Staff Performance

Survey respondents answered to a Likert-type answer scale to question 8i to express their impressions and practical knowledge about the consequences of state funding decline on staff as shown on Table 6.11 below. Generally, 68.8 percent of respondents confirmed that the reduction in subvention to the university has resulted in increased responsibility of staff to source for extra funding while 28.1 percent disagreed. Again, 71.8 percent of respondents confirmed that the reduction in subvention to the university delays the payment of the legitimate claims of staff, while 25 percent disagreed. Further, 71.9 percent of respondents agreed that subvention reduction creates reduction in university sponsored staff conferences, while 25 percent of respondents disagreed. Again, while 50 percent of respondents agreed that subvention reduction often delayed payment of workers' salaries with resultant labor agitation, 43.7 percent disagreed to any delays in workers' salaries payment due to reduction in subvention payment. Respondents who confirmed that university management is accused by staff of holding onto funds constituted 59.4 percent, while 21.9 percent disagreed, with 18.8 percent of respondents' undecided.

6.4.2.2 Effects of State Funding Decline on University Service Delivery

Table 6.11 below indicates survey respondents' views on the effects of reduction in public subvention on the service delivery of the university institutions from question 8ii. As many as 87.5 percent of respondents who confirmed that public subvention reduction to the universities necessitates a reduction in annual planned programs at the universities which also creates a decline in annual productivity, constituted 87.5 percent while 9.4 percent of respondents disagreed. Some 59.4 percent of respondents agreed that the universities are often unable to settle

with their creditors and are indebted to their service providers while 31.3 percent of respondents disagreed. Also, 56.3 percent of respondents strongly agreed that reduction in state subvention forces the universities to borrow from banks with its burden of interest servicing to the banks that grant the loans and overdrafts to the universities. Clearly, 90.6 percent of respondents strongly agreed that public universities had difficulties in employing new faculty staff to replace retired ones. Finally, 53.1 percent of respondents confirmed that subvention reduction has had an adverse effect on the corporate image of public universities, while 31.3 of respondents disagreed, and 15.6 percent of respondents' undecided.

Consequences	Strongly	Agree	Undecided	Disagree	Strongly	Total
on the	Agree				Disagree	
Institution	Percent	Percent	Percent	Percent	Percent	
Reduction in annual planned programs which adversely affect productivity	21.9	65.6	3.1	6.3	3.1	100
Often the University cannot honour its indebtedness	34.4	25	9.4	9.4	21.9	100
University often burdened with interest servicing from loans /overdrafts	37.5	18.8	6.2	15.5	21.9	100
Difficulty in employing new faculty to replace retired ones	56.2	34.4	9.4	0	0	100
Corporate image of university is negatively affected	25	28.1	15.6	18.8	12.5	100

Table 6.11 Effects of State Funding Decline on University Institutions Service Delivery

Source: Field Data (2017)

In commenting on how the state subvention decline makes it difficult for to employ quality staff for effective service delivery of the universities, an in-depth interview respondent explained that: "Universities do not have enough staff and immediately we started our new recruitment exercise the government placed embargo on employing new staff and we have tried to generate our own funds to engage and pay part-timers and that has been really challenging" (UM03) Another respondent indicated that:

"Even staff the universities employ when they have not received financial clearance from the Ministry of Finance are paid from their own IGR. Because if you have a collapsing faculty and you have one person who can support you and you've written for clearance and the clearance is not forthcoming and you have hundreds of students to teach, you just don't have a choice but even with that they seek clearance from the Ministry of Education and the NCTE" (ME01)

A respondent explained further that:

"The government does not pay part-timers who are engaged by the universities to teach on certain courses. But part-time is very key because it is not every course that you will get a full-timer to come and teach. There is a worth of individuals in town, PhDs who are not interested to become full-time lecturers, but we need them. And they are engaged to teach, and government says l won't pay. This year alone my university is paying about eight million cedis (US\$1.8m) to part-timers all from the IGR" (FD01).

6.4.3 Subvention Cuts and Learning in the Universities: Experiences of Student Leaders6.4.3.1 Funding for Students' University Education

Student leaders expressed their knowledge, feelings and impressions about the public subvention decline and its implications on their learning in the universities, with emphasis on how their university education is funded as students are levied for the cost of their learning to minimize the effects of subvention decline to the universities.

a. Current Sources of Funding Students Learning in the Universities

Respondents answered question 7 on who pays for their education at their current level of study and the feedback is shown in Figure 6.8 below. It indicates that 55.1 percent cited their parents, both father and mother as their financiers. Respondents who are financed by a single parent constituted 28.1 percent, while 6.7 percent of respondents each indicated that they are funded by themselves or by friends and relatives, with 3.4 percent being sponsored by external sources.

Figure 6.8 Current Sources of Funding for University Education



Source: Field Data (2017)

b. Supplementary Funding Sources for Student Education

Figure 6.9 below shows the feedback to question 9 on other supplementary sources of funding students access for their education. Respondents who indicated the Teachers Fund as a supplementary funding source constituted 1.1%, while the GETFund was 1.1%. Students who accessed supplementary support from the Bank was 5.6%; Students Loan Trust Fund (SLTF) was 12.4% while support from the University/Scholarship constituted 19.1%. There was a high non-response rate of 60.7 percent.



Figure 6.9 Supplementary Funding for Student Education

Source: Field Data (2017)

c. Reasons for Students' Low Patronage of SLTF

Figure 6.10 below shows responses to question 10 on the reasons why students did not apply for the SLTF. Respondents indicated that they do not patronize SLTF because of the following reasons: have study leave with pay 1%; do not want debt: 2.2%; application process difficult 5.6%; high interest rate 11.2%; and parents catered for all expenses involved in their university education constituted 33.8%. The no-response rate was 46.1 percent.



Figure 6.10 Reasons for Students' Low Patronage of SLTF

Source: Field Data (2017)

d. Mode of Payment of Student Fees before Registration

Question 11 asked how students pay fees to the university before they register, and Figure 6.11 below shows the responses. Respondents who indicated that the university accepts 70 percent payment before a student is permitted to register to begin the academic year constituted 51.7 percent, while 32.6 percent of respondents stated at least 50 percent fees payment before registration. In response to how student settled their fees in the various institutions of learning, a respondent explained that:

"The mode of fees payment poses a challenge as students who owe fees are not permitted to write end of semester examinations. Further, apart from the tuition fees there are other charges students are levied to pay, for instance medical levy and others and defaulting students in payment of these levies are not permitted to register to continue with their academic work, even if tuition fees are paid fully. The Students Representative Councils (SRC) and Universities Councils jointly resolve the challenges as they emerge" (NP01).

Another respondent indicated that:

"The university has a liberal system of students paying fees where students pay 50 percent of fees they owe per semester; an improved system from the former where students paid 70 percent in the first semester and 30 percent in the second semester. In extreme cases, students who cannot pay all their fees are made to present a request to management to be allowed to register while they arrange to pay the fees later" (FD01).



Figure 6.11 Mode of Payment of Student Fees before Registration

6.4.3.2 Declining State Subvention and Cost-Sharing in the University

As state subvention payment to the universities declines stakeholders have to decide how to financially resource the academic institutions to deliver quality education for the increasing numbers of registering youth who desire to pursue university education

a. Proposed Funding Sources for the Universities

Respondents' feedback to question 12 on how the universities should be funded to ensure all stakeholders satisfaction is shown in Figure 6.12 below. Respondents who recommend cost-sharing for university education constituted 67.5 percent, while 5.6 percent of respondents

Source: Field Data (2017)

indicate the government should be the sole financier, while 1.1 percent of respondents said students alone should pay their university education if the economy is good and would equip beneficiaries and their families to pay.





The composition of cost-sharing as listed by respondents are:

- Government
- Students/Parents
- Alumni
- Commercial ventures
- Universities IGR
- Private sector
- Donations from international bodies
- Prudent use of resources
- Commercial research
- Public and private partnership.

b. View on Cost-Sharing and Student Fees

Respondents' feedback to question13 which provided the statement that some universities charge high fees to meet their revenue targets if subvention is reduced and therefore declining subvention payment to the universities will shift the financial burden on students, is shown on

Source: Field Data (2017)

Figure 6.13 below. The responses indicate that 84.2 percent of respondents confirmed that declining state subvention shifts the universities' financial burden to students through high fees payment, with 4.5 percent disagreeing, and 11.2 percent were undecided.



Figure 6.13 View on Cost-Sharing and Student Fees

Commenting on how to secure sustainable funding in the universities to ensure quality delivery of higher education, a respondent explained that:

"Public university institutions experience funding gaps as government cannot meet all the funding requirements of state institutions. More so, with education the country's focus is on basic education; from Kindergarten to Junior High Schools, and that is where the chunk of government funding is invested. Undoubtedly, the need for holistic education in the country is imperative and the state allocates so much funds to the tertiary education with a total student population of 318,000 (GI05). Currently, the government is in discussion with tertiary education students on cost-sharing and how students could support in the payment of expenditure items like utilities and to assist minimizing the high cost of utilities on campuses such as electricity and water" (ME01).

Source: Field Data (2017)

6.4.3.3 Payment of Academic Facility User Fees (AFUF) and Learning

The relevance of AFUF to the universities and its effects on students' ability to cope up with the charges and successfully pursue their learning role is the focus of this analysis.

a. Students Fees as a Substitute for Declining State Subvention

Respondents answered question 14 about students being charged high fees to minimize the effects of reduction in public subvention payment to the universities and Figure 6.14 below shows the responses. Respondents who expressed no knowledge of the AFUF being paid to make up the difference for reduced public subvention constituted 44.9 percent, while 37.1 percent of respondents indicated that the payment was to compensate for declining public subvention. The remaining 18 percent indicated that AFUF is not meant to fill the funding gap resulting from declining public subvention.





Source: Field Data (2017)

A respondent explained the rationale of AFUF and fee-paying considering the tuition-free provision in the 1992 Constitution of Ghana that:

"The genesis of cost sharing or payment of AFUF and Fee-Paying programs in public universities in Ghana started around 1997. Before this period government provided funding for all line items in the budget of public universities and three to six months subvention for salaries payment was paid in advance to the universities. Now, all these provisions have disappeared, except for the salaries which we now call compensation, and it comes in arrears. The Universities have to find money to pay the salaries before the Auditors audit and present to government who would decide when and what to pay; that is why the universities have to borrow to pay salaries" (FD01).

Explaining further, the respondent indicated that:

"The term Academic Facility User Fees" (AFUF), was coined to charge tertiary education students certain amount for the cost of teaching and learning materials used for their training and all other items are excluded. As to how the initial amount to be paid by each student was determined, nobody knows. I am sure somebody just suggested 'let the students pay this' and so right from that time, AFUF has been subjected to a maximum increase of ten percent a year" (FD01).

The same respondent stated that:

"As government subvention keeps on declining the universities have been compelled to find other means of charging students for specific things/items. Currently, we charge students for "healthcare because once they come here, the university must take care of them. Fresh students are subjected to thorough medical examination, so they pay for healthcare and medical examination. In other words, all the identifiable activities that have earned benefits to the students directly, students are made to pay for that, for instance: matriculation, healthcare; medical examination; course catalogue/book for first year students; ID card; Technology fee (because with the advancement of technology, we cannot continue to do things manual); Sports; Residence; SRC dues; Sanitation. So, we have several line items that we charge students to pay, which are meant to meet specific expenditure and the generic name is the AFUF (DF01).

b. Student Fees and University Enrollment Size

Respondents answered question 15 which asked whether it is good for university education if high fees resulting from the decline in subvention payment cause a reduction in student numbers and the feedback is shown on Figure 6.15 below. Respondents who indicated No to increases in fees if it results in a reduction in student enrollment which is not good for university education constituted 68.5 percent. Some 20.2 percent responded yes, that fees were good for university

education even if student enrollment is reduced, while 11.2 percent do not know if increasing fees was good for university education or not if enrollment is reduced.



Figure 6.15 Student Fees and University Enrollment Size

Source: Field Data (2017)

Commenting on how student fees in the universities adversely affect student enrollment, a respondent indicated that:

"The IGR mobilization efforts of public universities have the tendency of reducing admission for qualified university applicants from poor family backgrounds. Some continuing students also have to defer their academic programs due to their inability to settle their AFUF" (NP01).

Another respondent explained that:

"Students fees is a real problem that needs to be addressed at higher levels of government. You will have for example 500 qualified applicants to the medical school but the university's capacity is 200. Of the 200, 100 are being admitted on fee-paying status because of the quest for IGR but most of them cannot pay fees. The systems that we have put in place are not sufficient, because if the person's annual fees is about GhC1000 or GhC1500 (US\$217-US\$326) and we have sponsorship for all those coming from less endowed families, those ones can only pay about GhC500 (US\$109), what about the GhC1000 (US\$217) fees difference; what about their feeding, accommodation, cost of material? How can the student go through that?" (UM02).

In explaining efforts at minimizing funding challenges of students in the universities, a respondent indicated that:

"As a long run remedy to the funding challenges NUGS has designed additional funding source for tertiary education students in Ghana code-named National Students Fund (NSF) to supplement the Student Loan Trust Fund (SLTF). The NSF was launched on 30th July 2017 and seed money of GHC42,000.00 (US\$9500) was mobilized through fund raising. Recommended sources of resourcing the STF which would be managed by Board of Trustees include (NP04):

- Students annual contribution of GHC1.00 per head to be paid through various campuses SRCs
- Government to contribute 15 percent of the Oil Revenue allocated for Capacity Building
- The 3 pesewas talk-tax should be increased to 4 pesewas and the additional 1 pesewa should be allocated to the STF
- Donations from Private Institutions/Corporate Organizations
- Individual volunteers" (NP01).

Commenting on student challenges in the universities beyond funding, a respondent listed the challenges as:

- "Inadequate time for students to access library facilities for research and other academic works because some libraries close early;
- *Poor furniture at the library which makes studies uncomfortable at the library;*
- Poor preparation of some lecturers for lectures culminating into giving out similar lecture notes to different student cohorts without updating lecture notes; lecturers recycle the same notes to students in different years;
- Some of these full-time lecturers are PhD students and do not spend adequate time with their students;
- Inadequate research funds to the universities contributes to the ill preparation of lecturers for lectures
- Students are not given practical lessons from practitioners from the field who are to be invited to impact practical knowledge needed at the field of work as most regular lecturers do not have the practical knowledge to impact to their students;
- Inadequate academic facilities and equipment in most universities and those that have are very dilapidated" (NP01).

c. Funding Support for the High-Achieving but Financially-Needy Students

Figure 6.16 below shows the feedback to question 16 on how the universities should treat high achieving but financially-needy students who are unable to pay their indebtedness to the university. Figure 6.16 below shows that 67.4 percent of respondents recommended a full scholarship for the high achieving but needy students who cannot pay fees resulting from cost-sharing in university education. Some 14.6 percent recommended loans for such high achieving but needy students with very flexible repayment conditions after graduation, while 5.6 percent of respondents suggested that these students should be made to pay all accumulated fees after graduation, within a flexible payment plan.



Figure 6.16 Funding Support for the High Achieving but Financially- Needy Students

Source: Field Data (2017)

In explaining the relevance of funding support for high achieving students from poor families, a respondent remarked that:

"Without funding support a number of qualified candidates will never have access to university education because nobody thinks about them: "Even we the universities are thinking about IGR and Private Universities, they cannot go there so, there is no opportunity for them; such people get frustrated. And the only system that is saving them is the colleges of education allowances. So, most of the schools that the teachers know about such good students, they advise them to go to the teacher training college, where they will be getting allowances. When they complete and teach for some time, they can go to the university and sponsor themselves and a lot of the go through that process" (UM02).

One respondent explained further that:

"We used to have a program called "less endowed" where applicants from less endowed senior high schools and were mostly from poor families were offered admission with uncompetitive grades. Most of them who were able to accept the offer ended up with first class on graduation but a number of them due to poverty could not enroll as we have never been able to exhaust the quota for them. I am giving you a story of one of such beneficiaries from Northern part of Ghana. When he got the admission letter the entire village he comes from contributed to enable him to pursue the university education as he was the first in the village to have that opportunity. And when he came and paid the fees there was nothing left. A whole village contributed, he paid and there was nothing left, and he run away. Up till today, we sent people to go and just bring him, the university would write off all the fees, and he could only shoulder the feeding allowance, we never got him" (UM01).

Another respondent indicated that:

"The core funding difficulty emanates from students raising adequate funds to facilitate their university education. Two groups of students were identified, namely, normal students who enjoy free tuition but are supposed to pay AFUF; while the second group are fee-paying students who are admitted paying full tuition and other fees at both undergraduate and postgraduate levels. Obviously, the size of fees is a challenge and differs from one university to the other but generally, the fees schedule is phased into two in a year where students are expected to settle all their indebtedness to their institution. Most of the students come from places outside their institution of learning and they must acquire residential rooms and pay rent, they ought to fend for themselves, pay water and electricity bills among others. So, the amount is a key challenge as it is beyond the payment of fees" (NP01).

In reaction to the universities' financial arrangements to support the high achieving but financially needy students, a respondent indicated that:

"Universities have students' financial aid offices where funds are solicited from individuals and organizations to donate funds to assist needy students. Again, the SRCs have different funding schemes such as YIBIBOA (donate to help); KETEWAA BIA NSUA (no contribution is small) where funds are mobilized to assist needy students. Again, the Mastercard Foundation from Canada also operates in some universities to sponsor needy students by paying their fees, monthly stipend, free accommodation, one meal a day preferably; super and a laptop to each beneficiary" (FD02).

On the role of the state to support the high achieving but needy student, a respondent explained that:

"Government is implementing certain interventions to support students one of which is the Students' Loan Trust Fund (SLTF). The SLTF has been in existence since 2006 and replaced the SSNIT Loan Fund (SLF) and helping to ease students' funding problems. Ccurrently, students can access up to GHS 3,000 (US\$670.00) a year to support their university education - not after entering the universities but even students can access the facility and accessing the fund has been made simpler and smarter. Now, you can even access before you actually enter the university, first it was a bit of a problem because you needed to get admission into the university and start before but now, with the admission letter, you can actually start the process and get something before you enter" (ME01)

d. Retention of Fee Payment in the Universities

Figure 6.17 below shows the feedback to question 20 on whether the government should abolish payment of any form of fees in the universities. Respondents constituting 63 percent indicated that government should not abolish payment of fees by students, while 27 percent supported fee-free university education. Some 10 percent were indifferent to whether fees should be abolished or not.



Figure 6.17 Retention of Fees Payment in the University

Source: Field Data (2017)

6.4.3.4 Implications of Funding Decline on Access to Academic Infrastructure

Table 6.12 below shows the responses to questions 21, 22, 23, 24 and 25 on the effects of subvention decline on academic infrastructure in the universities. Table 6.12 indicates that 48.3 percent of respondents could not tell (undecided) if available lecture rooms meet the learning needs of students in the university. Some 31.5 percent disagreed that lecture rooms meet the learning needs of students, 20.2 percent confirmed that available lecture rooms meet the learning needs of students in the university. Some 43.8 percent of respondents were undecided on whether it is easy to access the needed resources from the university library. However, 30.3 percent of respondents confirmed that it is easy to access the needed resources from the university library, while 25.8 disagreed with this assertion.

On internet accessibility, most respondents, constituting 39.3 percent, were undecided and could not tell how easy it is for students to access internet facilities to support their learning at the university. A slightly smaller percentage, 37.1 of respondents, indicated that it is easy to access internet facilities for learning at the university while 23.6 percent disagreed that it easy to access internet facilities at the university. Further, most respondents, 42.7 percent, were undecided whether the university has effective internet facilities to support student learning needs. However, 30.3 percent of respondents agreed that internet facilities at the university were effective for student learning needs while 27 percent disagreed. Finally, 65.2 percent of

respondents confirmed that the university has spacious state-of-the- art library facilities for good student learning, with 23.6 percent disagreeing that there were spacious state-of-the-art library facilities for student learning.

Available academic facilities for use in Public	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Universities	Percent	Percent	Percent	Percent	Percent	
Available lecture rooms meet learning needs of students in the University	5.6	14.6	48.3	22.5	9	100
It is easy to obtain the needed resources from the University library	4.5	25.8	43.8	21.3	4.5	100
It is easy to access internet facility to support students learning in the University	9	28.1	39.3	18	5.6	100
University has effective internet facility to support students learning needs	2.2	28.1	42.7	23.6	3.4	100
University has spacious state-of-the-art library facilities for good students' learning outcome	14.6	50.6	11.2	15.7	7.9	100

Table 6.12 Access to Academic Infrastructure

Source: Field Data (2017)

Commenting on the state of academic infrastructure in tertiary education in general, a respondent retorted:

"Could you imagine, the school that is awarding diploma to students has a computer lab with only eleven computers, yet student population is over 400? How do we expect 400 students to access 11 computers? Take the school of Ghana Survey and Mapping established in 1923 but has only 10 or 11 computers and some of them are not working. The structure has never seen any development since it was established. And it is the only School of Survey and Mapping in Ghana" (NP04). In summary, the national financial crisis coupled with pressure on demand for vital social goods have compelled government to reduce state financial support to the public universities, which has an important role to training personnel for manpower needs of the country through teaching, learning, research and community engagement. As delivery of the mandate of the universities is both labor and capital intensive, the universities have adopted cost-sharing measure to mobilize supplementary resources to manage the state financial decline in order to effectively deliver on their mandate. The measures introduced have far reaching consequences for staff and students; as staff experience expanded workloads while they search for additional income to complement the state financial support, without corresponding personal benefits. Students also have to pay AFUF and in some instances tuition fees in addition to other logistical expenses to successfully achieve their university education; a situation with consequences that are likely to deprive prospective students from poor family backgrounds of access to university. As the universities implement the new measures to mobilize supplementary funds, they encounter encumbrances as well as opportunities which are worth examining.

6.5 State Funding Challenges and Opportunities

The difficulties or obstacles that confront the universities as they access varied funding sources to manage their mandate delivery is the focus of this section. Again, the existing prospects that are being utilized or could be exploited to improve and deliver the universities' mandate are also explained. This section mostly focuses on the accounting professionals who are engaged primarily to manage the finances of the universities. Data from survey questionnaires are used to explain the challenges and opportunities and are supported with interview data for better understanding and clarification of issues raised.

6.5.1 State Funding Challenges: Accounting Professionals' Stance

The observed obstacles and problems that the accounting professionals encounter from the state in their efforts to access funding from different sources to manage the universities' mandate are analyzed in this section. The main problems identified are state regulatory policies and schedule of state subvention releases.
6.5.1.1 State Regulatory Policies and Internally Generated Revenue (IGR) Mobilization Respondents answered question 9 on how state regulatory policies affect the IGR drive of the universities and Figure 6.18 below shows the responses. Respondents who indicated that state regulatory policies unduly interfere with the IGR mobilization efforts of universities constituted 34.3 percent. Some 15.6 percent of respondents confirmed that state regulatory policies inject discipline and efficiency into the use of IGR in the public universities while 3.1 percent of respondents indicated the universities are not permitted to charge for full cost recovery. Respondents who indicated no knowledge of any policy effects comprised 6.3 percent, while the non-response rate was 40.6 percent.



Figure 6.18 State Regulatory Policies and IGR Mobilization

Issues considered as interference included: capping of how much the academic facility user fees should be adjusted upwards per year; universities cannot mobilize IGR beyond their legal mandate for existence; introduction of recapping with 34 percent of universities' IGR to be paid into government accounts (yet to be implemented and being discussed for the way forward).

Commenting on the state policy interference in IGR mobilization, a respondent stated that:

Source: Field Data (2017)

"Government is interfering so much in the operations of universities to the extent that Parliament is even discussing how to rationalize the sale of universities application forms in the country" (LU01).

In explaining how government policies regulates the IGR operations in the universities, a respondent stated that:

"How much the university can charge as AFUF payable by Ghanaian students is heavily controlled by government. Currently, there is a requirement by the Parliamentary Select Committee on fees and charges that makes it mandatory for universities to present before Parliament for approval the fees that they intend to charge and that alone is a major restriction and we have been accused that over the years we have been charging arbitrary fees. Further, before any AFUF is fixed we need to negotiate with the Students Representative Council (SRC). The students have a say in the fixing of the fees as they have representatives on University Council and Finance Committee and are ready to oppose any proposal submitted for consideration. Any amount decided should be democratically determined and approved, not necessarily because the University needs it, but this is what they think they can pay, which is a big challenge". (FD01)

Explaining further on fixing of fees in the universities, a respondent indicated that:

"The major challenge is the cap that the government has placed on the fees that we can charge to students. Apart from the fact that we are not able to charge tuition fee to regular students, we are also being limited with respect to how much we can charge even for the services we provide in terms of AFUF, medical fees, the ICT usage and the other services that we render to students. We can't go beyond limit because the government strictly has an eye on that and because of that we are challenged to find better ways to be able to provide the same services at that limited level of fees and also generate enough revenue for the other activities of the university. That's the major challenges" (FD01).

Another respondent remarked that:

"In fact, students hardly appreciate and cooperate in making further contributions towards the cost of their university training that students do not pay electricity and water bills, with

government accepting responsibility to pay but never pays and so we have a situation where educational institutions are being disconnected because we cannot pay for electricity" (LU03).

A respondent indicated that a worrying interference is:

"The government demand for 34 percent of the public universities IGR to be paid into government accounts and covered by the 2018 budget statement to Parliament which has approved of it. We have always opposed that, it is not a new thing, it has been the thinking of the past government - we resisted it, they couldn't implement it and this government has come to continue, we will resist it with all the forces that we have. We are not going to allow that to happen, if it means closing down the universities on this single issue, we will do that because it's not done anywhere. Government just frame policies and tries to push them down the universities" (LU01).

Another respondent remarked that:

"This government recapping policy on universities IGR in 2018: "is a joke but if they want to kill higher education then they should go ahead, they should try it. It is because of our ability to keep the internally generated revenue that is making us survive. But if you insist that we should pay it, we will pay it because they have a way of taking it, they will just take one-third of the subvention and that ends it. But the consequences it will have on the quality of education is not something we will feel now, we will feel it a decade or two decades to come" (UM02).

Explaining the proposed capping policy of government and the rationale for the policy, a respondent indicated that:

"The government directive that universities should pay 34 percent of their IGR into government accounts (Consolidated Fund) for reallocation to the needy public tertiary education institutions is the capping policy. Universities generate so much IGR and government is looking at how to use these funds they raise efficiently and not going over-board and spending the money on things that might not be necessary. So, part of it is the capping, you realize that you will spend on the most important things, so that you bring growth, efficiency and effectiveness in management and the service delivery of it" (MF01).

In explaining the reasons for government policy restrictions in the universities, a respondent indicated that:

"Over the years when you look at reporting in terms of IGR it is realized that most of the institutions do not actually report exactly what they collect. At the end of the year they spend far more than what they declared that they are going to collect as IGR. Again, most universities keep the IGR in Commercial Banks who make money of it by buying government bonds; but it is illegal to use government funds to make money from the government. At the time these funds are being used illegally by the Commercial Banks the Government is in need of funds to execute the business of the state. Government is suspicious of public universities investing IGR in government treasury bills, buy excessive equipment and machines including vehicles which under normal sound public financial management it should not be purchased. Government policies are to introduce checks and sound financial management practices (MF01).

In explaining the government suspicion that the universities under-declare their annual IGR targets, a respondent explained that:

"How government allocates block grant to the public universities may account for the IGR concealment. We factor in the ability of the institutions to generate IGR as a way of allocating money to them. For instance, institutions that generate less because they are small or new we turn to give them more of government's funds as compare to the bigger institutions that generate more. And that also has its own challenges. Because institutions that can generate more will say that, because I generate more, we don't get more from government. And they can also try not to disclose their IGR in full" (MF01).

6.5.1.2 Schedule of State Subvention Releases

The timing of releases of state funds to support their mandate delivery as well as how any delays in releases are managed in the universities are the issues for analysis in this section.

a. Untimely Releases of State Subvention and Expenditures Management

Table 6.13 below shows respondents' feedback to questions 10 and 11 on whether subvention is released timely to meet the expenditure patterns in the universities and sections, and how expenditures are managed should there be delays in releases. Respondents who indicated that

government subvention payment delays happen constituted 81.3 percent, while 12.5 percent indicated payments were made on time, with 6.2 percent of respondents expressing no knowledge of the payment schedule. Respondents who indicated that IGR is the stop-gap measure to kick-start university annual projects pending release of state subvention constituted 68.7 percent. Some 15.6 percent of respondents confirmed the universities' reliance on credit facilities/bank loans as the stop-gap remedy, while 9.4 percent indicated that program implementation were suspended until the subvention was paid. Respondents who indicated the use of hire purchase to start programs pending release of state subvention constituted 6.2 percent.

Table 6.13 Untimely Releases of State Subvention and Expenditur

Managing Late Release of	Timely R	elease of	Public Subv	ention for
Subvention for Projects	Projects			
	Yes	No	Don't Know	Total
	Percent	Percent	Percent	Percent
Project suspended till funds	0	9.4	0	9.4
release				
Hire Purchase	0	3.1	3.1	6.2
Use of IGR	9.4	56.2	3.1	68.7
Use of Credit facilities/Bank	3.1	12.5	0	15.6
loans				
Total	12.5	81.3	6.2	100

Source:

Field Data (2017)

Commenting on the schedule of state subvention releases to the universities, a respondent explained that:

"The untimely payment of state subvention to public universities has dire consequences on the quality delivery of higher education in Ghana. Even salaries that government pays is always in arrears and the institutions have to look for loans to pay salary as they wait for the subvention. The subvention comes and the interest on the loan is not part of it, so, the universities would have to use its IGR to service the interest". (LU01).

A respondent expressed concern on how the university management spend staff monthly welfare deductions when subvention payment delays and remarked that:

"They rely heavily on the one percent of the staff salary that comes to us. They use the welfare funds that should come to us to run our union and when the subvention delays, this percentage that is deducted from payroll doesn't come to us and it worries us. We owe a lot of money to clients, due to welfare that is not paid because subvention doesn't come on time. This is a problem but what can we do? Because the government releases, if it doesn't come, management can only rely on the little that we have internally and pay salaries and leave the deductions that come to the union, but we bear with them. You cannot use FUSSAG dues to pay salaries because subventions have not been released. It is not easy, but we bear with them" (LU03)

Another respondent retorted:

"it is threatening. In fact, this is serious because SUPER ANNUATION is people's money and management doesn't inform members. It is a pension scheme. SUPERRANUATION is money that is reserved for people who are not on SSNIT and so because this money is readily available and is being managed by the board, they can just put their hands in. The members are not aware. If they are aware, they will not accept it, because you can't take their money to pay salaries and not pay any interest on them. So, it threatens investment in that direction. Members' future savings are threatened, and it is not a good source to pay salaries. When the members are aware, they will not allow" (LU03).

b. Effects of Untimely Release of Subvention on Project Implementation

Respondents answered question 12 on the effects on the universities when there is untimely payment of subvention and the range of responses are listed below:

- Poor and unsatisfactory service delivery
- Inability to pay debtors/suppliers
- Delay in implementation of programs/projects
- Delays in the payment of workman's compensation and allowances
- Low morale and reduced productivity of staff
- Intensification of IGR mobilization to raise enough funds to pre-finance some of these programs

- Increase in payment of interest resulting from loans and overdrafts accessed
- Increases in margins on goods and services provided by suppliers
- Delays in the supply of academic infrastructure.

c. Failure to Release Program/Project Funds by Institution

Table 6.14 below shows the feedback to question 13 on how programs/projects tied to subvention or donor funds are treated if the funds are not released/cancelled, more so, should the project be phased out before completion. From Table 6.14 below, 31.3 percent of respondents indicated that such projects are reprioritized among other projects for consideration, while 9.4 explained that the projects would be abandoned. Some 25 percent of respondents explained that either IGR would be used to complete the project, or the project would be suspended until funds were made available. At the institutional level, 12.5 percent of respondents from UG indicated that a project would be reprioritized for consideration, while 9.4 percent of respondents each from KNUST and UDS also indicated that a project would be reprioritized that a project would be reprioritized that a project would be reprioritized to consideration.

Implementation of	Institution				
projects tied to donor funds when funds dalay or not	KNUST	UDS	UEW	UG	Total Percent
released	Percent	Percent	Percent	Percent	rereent
Project re-prioritized among others for consideration	9.4	9.4	0	12.5	31.3
Project is abandoned	3.1	0	6.3	0	9.4
Loan accessed to					
complete the project	3.1	3.1	0	0	6.3
IGR used to					
complete the Project	0	6.3	12.5	6.3	25
Project suspended					
till release of funds	9.4	3.1	3.1	9.4	25
Non-Response	3.1	0	0	0	3.1

Table 6.14 Failure to Release Program/Project Funds by Institution

Source: Field Data (2017)

6.5.2 Opportunities to Improve upon Funding: Accounting Professionals' Perspectives

The funding difficulties the universities encounter in respect of the subvention decline, state policy interferences as well as the untimely release of the inadequate state financial support necessitate that the universities reassess the existing sources of funding and strengthen them as well as explore new areas of funding that could be accessed and managed to improve their funding for effective and qualitative delivery of their mandate.

6.5.2.1 Access to State Subvention

State subvention is a major source of funding to the universities, however, the challenges in terms of how much should be given and when, demands internal evaluation in the universities to verify if they could do without state financial support.

a. Possibility of Self-Financing

Respondents answered question 14i which asked if the universities are capable of self-financing and Figure 6.19 below shows the responses. Respondents who indicated that public universities were not ready for self-financing constituted 56.2 percent, while 28.1 percent of respondents indicated that public universities are ready and capable of generating their revenue and could wean themselves from state support. Respondents who did not know whether public universities are capable of self-financing or not constituted 15.6 percent.

Figure 6.19 Possibility of Self-Financing



Source: Field Data (2017)

b. Retention or Withdrawal of Subvention

A follow up question 14ii asked respondents if state subvention to the universities should be withdrawn entirely, and Figure 6.20 below shows the feedback. Clearly, 75 percent of respondents indicated that government subvention is very relevant and should not be withdrawn from the universities while 15.6 percent of respondents opted for withdrawal of state subvention.





Source: Field Data (2017)

Only 9.4 percent of respondents did not know whether subvention should be retained or withdrawn.

An in-depth interview respondent explained that the universities currently have a funding-gap with state financial support and subvention withdrawal will expand the gap and indicated that: "Universities undoubtedly, have a wide funding gap to grapple with, and are not ready for self-financing. If I could give you a brief history of the funding gap in my university, in 2011, it was 54.7%; 2012, it was 66.6%; 2014, it was 57.9%; 2016 it was 60.6%; and 2017, 61.2%; and so at least it has been around 55 and the maximum of 67 percent over the last five years. And this affect quality of university education delivery but as a university we are doing our best to raise resources to improve upon quality" (FD01).

Commenting on the reported funding-gap in the universities, a respondent remarked that:

"There are reports of funding-gap every year and we get where they are coming from. You may be amazed but most of the challenges come from allowances, compensation of employees and for that matter other issues that relates to the progression or emolument of the lecturers and the workers there rather than focusing more on service delivery". From any point of view, you get books and research allowances coming up, you also get lecturers fighting not to stay on the single spine and want to be on their own pay-roll. Every year education budget goes up, the compensation only goes up. If you have a close study, you will realize that from 2014 to 2017, the compensation budget for education has been increasing year-on-year. Last year, it was about "4.8 billion, this year it's about 6 billion". While compensation is growing high, the amount for providing goods and services will definitely dwindle and capital investment will also reduce because there has to be a balance" (MF01).

c. Reasons for Retention or Withdrawal of State Subvention

Respondents' feedback to question 14iii stated the reasons for either retention or withdrawal is shown in Figure 6.21 below.

Figure 6.21 Reasons for Retention or Withdrawal of State Subvention



Source: Field Data (2017}

From Figure 6.21 above, reasons for retention of subvention are:

- Tuition fees charges would create student protest and unrest: 31.2 percent
- Applicants from poor families cannot afford high fees: 25 percent
- Enable government monitor of public universities by paying subvention: 6.3 percent
- Government would be unpopular: 3.1 percent.

Justification for withdrawal of subvention are:

- Enable universities to charge realistic fees: 6.3 percent
- Universities can generate IGR for their operations: 6.3 percent

The total Non-Response recorded was 21.8 percent.

6.5.2.2 Exploring Varied Sources to Improve Upon IGR

a. Current Sources of Funding

Figure 6.22 below shows respondents' feedback to question 15 about the current sources of funding for the universities

Figure 6.22 Current Sources of Funding



Source: Field Data (2017)

From Figure 6.22 above, current funding sources are:

- Government subvention: 28.1 percent
- AFUF (Academic Facility User Fees): 21.9 percent
- International/fee paying programs: 15.6 percent
- Research support: 12.5 percent
- Fees from services: 9.4 percent
- Donor support: 9.4 percent and
- Renting of university facilities: 3.1 percent.

Commenting on the sources of funding in the universities, a respondent explained that:

"every revenue to the universities except subvention from government is IGR. That is, every revenue the university receives that does not come from the government is IGR and these include AFUF, residential User fees, research grants, interest from investments, proceeds from sale of goods, and donations. And intimated that donor funds are part of the universities IGR and efforts are made to access them as most of these funds are user driven. The universities access IGR from donors through a number of research projects initiated by staff. You know, all these research projects being implemented have overheads which we source and use for our academic activities (FD01).

Another respondent indicated that:

"a number of the academic staff are involved in consultancy/research works with the private sector and provided such consultancies are undertaken legally, the universities have a share in the research funds won" (LU01).

Explaining the sustainability of the research grants, a respondent remarked that:

"the universities should be cautious of overreliance of the research funds as a source of IGR and explained that, obviously, this IGR source is not sustainable. In fact, it is not something I will personally encourage for any institution of higher learning which is supposed to be so well resourced to the extent that they will need nothing. And this resource will be sustained if government and National Authority resource it directly; so, all these IGR become just add - ons so that without them the university will not be found wanting. I don't think it's sustainable at all to rely on people who could probably tell you they can't help you anymore. What about if every lecturer applies for fund and we do not get them. What about these companies we've been talking to promises and fail to deliver. At the end of the day, it is going to hurt the students the most because for them, you have no other choice than charge exorbitant fees and so I don't think that's the way forward" (LU01).

Explaining a major focus of the universities being to explore and access and improve upon its IGR, a respondent stated that:

"There are professors, lecturers and the universities are supposed to use what they have to generate enough money to support their teaching, research, outreach programs and it should not be only the government burden to look for funding to sustain the universities" (UM02).

A respondent explained further:

There are several workers who don't have the luxury to leave their work for three to four years residential university education. "The universities exploring the opportunity to design short courses for weekends and sandwich programs for this group of students would not only help the workers to acquire academic laurels but also make available scarce resources to the universities to manage their funding gap" (ME01).

Another respondent explained the relevance of donor funds for the universities and indicated that:

"My university has had some projects directly financed by the World Bank and without such support the University could not have constructed such projects. The World Bank has given us a total of US \$8 million. The project is ongoing, and the construction is okay. And this is the sort of things that we get that we use for infrastructure. Otherwise, you cannot get it from the government" (UM02).

b. Accessing and Strengthening New IGR Sources for Improved Funding

Figure 6.23 below shows respondents' feedback to question 16 on the IGR sources the universities could explore further and strengthen to improve upon its funding.

- Consultancy services/research (25%)
- Prudent use / management of funds (15.6%)
- Local/international fee-paying programs: (15.6%)
- Housing for staff/students: (12.5%)
- Commercial ventures/PPP: (15.6%)
- Commercial farming: (9.4%)
- Distance education program: (6.3%).

Specific areas mentioned under Commercial ventures and PPP (Public-Private-Partnership) are: printing houses, fuel station, and commercial water production.



Figure 6.23 Accessing and Strengthening New IGR Sources for Improved Funding

Source: Field Data (2017).

Commenting on new areas that the universities should explore to access supplementary resources to improve upon its funding, a respondent intimated that:

"One untapped area is commercial fundraising but public universities in Ghana are not oriented to pursuing commercial fundraising and most of them do not have offices for fundraising. "Going to raise funds is a whole world of itself which requires a set of skills and the universities in Ghana do not have these skills and expertise" and this should be looked at. Again, endowment funds in public universities in Ghana is none existence and this should be taken seriously: "elsewhere in Europe and America, endowment fund is a major source of IGR for universities. If you go to Harvard alone, I am told the endowment fund run into billions of dollars, close to thirty-one billion dollars. So, the interest they earn on the endowment fund alone is enough" (FD02).

In explaining the usefulness for the universities to collaborate with private sector to attract the needed funding, a respondent explained that:

"public universities and industries collaboration for commercial research is not well developed and could be explored for products development for mutual benefits. The partnership will ensure that industry provide funds, facilities and equipment to the universities who would also research into the products of industry to improve upon them and attract the needed funding, with others establishing chairs. All countries that have succeeded in this direction, it is Corporate Organizations that are funding their universities. A university in Europe where l studied for PhD, Rolls Royce built a very big research laboratory for them so whatever research goes on in there, it is Rolls Royce that have access to it and so tend to benefit" (LU03).

Another respondent remarked that:

"Contract research is not well developed to yield very high overhead charges: "In Europe and America where contract research and research in general are well established and universities are into cutting edge research, companies, and government approach them to do research for them and they are able to determine that for every research grant that comes, our overhead is about twenty or thirty percent; I understand Harvard takes forty percent for overheads but here, overheads are between five and ten percent" (FD02).

A respondent further stated that:

"a non-traditional source of IGR that could be explored to improve funding is for all public universities to join resources to establish a bank. It is envisaged that with their many students as clients the bank could become one of the most formidable and competitive financial institution in Ghana" (LU03).

6.6 Conclusion

This chapter reported on the experiences of staff and students in relation to how the decline in state funding affects the core mandate of delivery of teaching, learning, research and community engagement in the public universities aimed at training professionals and other human capital vital for the socio-economic development of the nation. The challenges and opportunities available for the universities to explore for supplementary resources to enhance the funding of its core mandate was also reported. The chapter is a summary of the quantitative data collected, supported by qualitative data gathered from fieldwork for this study on the topic: State Subvention Decline in Public Universities in Ghana: Staff and Students Perspectives.

The major findings indicate that the national financial crisis coupled with increasing demand for social services and other infrastructural needs has consequently reduced the state subvention to the universities with far reaching consequences on the quality of delivery of its mandate. In order

to ensure the universities remain in business and be competitive, stakeholders have evolved pragmatic responses to resource the universities through cost-sharing where the state, students and the universities are each assigned the responsibility to contribute a proportion of the universities' financial needs. This notwithstanding, due to the increasing size of the population of children and youth in Ghana, the nation has prioritized its education expenditure in favor of basic and secondary education. This is happening to such an extent that financial support to the universities is now inadequate to pay for benefits such as workman's compensation in the universities, with all other expenses left to the universities who have to mobilize supplementary resources to remain in competitive business. The findings established that the universities currently provide 71.9 percent of their annual income with the state contributing only 28.1 percent.

The consequences of reduced state funding are increased workload for university staff through both traditional and non-traditional means to mobilize the needed supplementary resources for the universities without direct corresponding financial benefits for their efforts. This situation often creates tension and misunderstanding between staff and the university management. Students are also drawn into the financial equation as the universities have commercialized their operations without recourse to affordability. This situation deprives a number of prospective applicants and students already in the system, who come from poor family backgrounds, access to and an uninterrupted smooth university education, touted as a means of enjoying middle-class life. Though the universities and government have developed means to financially support the needy students through the Students Financial Support Services Offices and the Students Loan Trust Fund (SLTF), the measures are not adequate, with the SLTF is poorly patronized by the students. This has prompted the national leadership of students to design and establish another Students Loan Fund to financially assist its members.

The findings have further established that despite inadequate state financial support to the universities, government policy directives to regulate the universities create a number of encumbrances for the universities' ability to mobilize adequate resources to complement the state reduced subvention to enhance funding and quality mandate delivery. Notable among the regulatory policies are capping on how much universities can charge students, where to invest, and above all, state regular interest to access funds from the universities to support national

developmental agenda. The policy directives for the universities are mostly informed by the state's suspicion that the universities have more resources than what they declare, while the universities claim there exists a large funding-gap that efforts are being made to close. Another finding is that the state mostly designs directives for the universities without proper consultation with the interest groups in the universities which creates tension and suspicion that could disturb the peace needed for quality academic work. The findings further indicate that there are a number of opportunities that could be further explored to access additional funds such as commercial fund raising, collaboration with the private sector for contract research, endowment funds, and the use of public-private partnership to invest in areas that would target the university community as a clientele. The findings established that the universities have the needed skilled manpower such as availability of professors and other professionals as well as a ready market to utilize to mobilize adequate resources to fund their mandate and remain internationally competitive.

CHAPTER SEVEN INTERNALLY GENERATED REVENUE (IGR) MOBILIZATION AND MANAGEMENT IN PUBLIC UNIVERSITIES

7.1 Introduction

Chapter seven presents findings from the views of academic heads, accounting professionals and student leaders on internally generated revenue (IGR) management in the public universities. This section builds on the findings presented in Chapter six and the same survey questionnaires and in-depth interviews were used to gather quantitative and qualitative data to ascertain how public universities explore IGR sources for supplementary revenue to improve upon their funding and minimize the effects of a decline in state funding. The findings further reflect the IGR expenditure patterns in the universities, as well as the effects of the mobilization of IGR on the mandate delivery of the universities. The heads of academic departments (HADs), accounting professionals (APs), and student association leaders (SALS) completed survey questionnaires to gather measurable numeric data on the action plans designed and adopted by the universities to mobilize IGR, how the funds are spent and the impact of these funds on the universities.

In-depth interviews were conducted with university management (registrars, provosts and deans), leaders of workers unions (UTAG, GAUA, FUSSAG and TEWU), finance directors, and the President of National Union of Ghana Students (NUGS). Three selected government stakeholder-institutions officials interviewed were: National Council for Tertiary Education (NCTE), Ministry of Finance, and Ministry of Education. The in-depth interviews were administered to five groups with each group responding to the same interview guide and coded as follows:

- University Management (UM): Registrars (UM01), Provosts (UM02), Deans (UM03)
- Finance directors: FD (FD01)
- Leaders of workers unions (LU): UTAG (LU01), GAUA (LU02), FUSSAG (LU03), TEWU (LU04)
- President of National Union of Ghana Students: NP (NP01)
- National Council for Tertiary Education: NCTE (NC01)
- Ministry of Finance: MF (MF01)
- Ministry of Education: ME (ME01).

The findings in this chapter consider the IGR mobilization and management in the public universities. The study covered four public universities, namely University of Ghana (UG); Kwame Nkrumah University of Science and Technology (KNUST); University of Education (UEW); and University for Development Studies (UDS). The presentation of the findings starts with the survey data supported with qualitative data gathered from the in-depth interviews conducted. The rationale for the study was to answer the under-listed research questions:

- i. What funding strategies have been employed to generate revenue in public universities in Ghana?
- ii. How are the available Internally Generated Revenue (IGR) spent in public universities in Ghana?
- iii. How do the IGR strategies affect the way in which universities in Ghana are managed?

The research questions reflected three main themes to guide the study as follows:

- IGR mobilization strategies in public universities in Ghana;
- IGR expenditure patterns in public universities in Ghana; and
- Effects of IGR on public universities in Ghana.

7.2 Internally Generated Revenue (IGR) Mobilization Strategies in Universities in Ghana

This chapter deals with the ways public universities organize their operations towards mobilizing the vital resources required to implement their core mandate of teaching, learning, and research and community engagement in the light of declining state subvention.

7.2.1 Academic Heads' Stance on the Mobilization of IGR Strategies

This section outlines the plans and methods adopted by academic heads to mobilize and achieve improved IGR to supplement state subvention to effectively deliver their mandate in the universities.

7.2.1.1 Engagement in Profitable Non-Academic Ventures

a. Interest in Non-Academic Commercial Ventures for IGR

Respondents' feedback to question 18i on whether their institutes/departments subscribe to the entering into commercial activities which are not academically related to raise IGR gave the

responses presented in Figure 7.1 below. Respondents who are not in favor of non-academic commercial ventures for IGR constituted 54.7 percent, while 37.3 percent supported non-academic commercial ventures to mobilize IGR.



Figure 7.1 Interest in Non-Academic Commercial Ventures

b. Reasons for Disapproving or Approving Non-Academic Ventures

A follow-up question 18ii asked respondents to provide reasons for their disapproval or approval to engaging in non-academic commercial ventures for IGR.

Disapproval of Non-Academic Commercial Ventures

Responses included:

- Could dilute teaching
- It will compromise the core mandate of teaching, research, and community engagement
- To avoid conflict of interest
- No funds to invest into non-academic commercial ventures
- Such ventures will raise student fees
- It may not contribute to student training
- The universities should not lose focus on their mandate because of its quest for IGR.

Source: Field Data (2017).

Approval of Non-Academic Commercial Ventures

Responses included:

- Will help the universities to link up with industry
- Will provide hands-on experience for staff that can be transferred to students
- Will help improve IGR and so enhance the universities' delivery of their mandate
- Assist in publicizing the universities
- It will help boost the departments' extension services
- It will make academic courses marketable
- It will help to reduce AFUF
- Will enhance staff remuneration.

c. Current Investments in Profitable Ventures

Respondents' feedback to question 19i on the current investments in their departments for profit to improve upon IGR reflects in the responses presented in Figure 7.1 below. The feedback indicates that 56 percent of respondents' departments have not invested in any profitable ventures while 24 percent of departments have investments to yield returns, with 20 percent of respondents' undecided.





Source: Field Data (2017).

d. Reasons for Current Lack of Investment or Investment

Respondents' feedback to question19ii stating reasons for no investment or investment in profitable ventures in the departments for IGR are indicated below.

Reasons for no investment:

- Members have heavy teaching loads
- Basic equipment lacking
- No apparent reason
- Inadequate funds to invest
- Lack of expertise
- Now repositioning the department.

Reasons for investment:

- To mobilize IGR for the Department
- Help train students in the practical component of their coursework.

Other respondents also indicated investments are management's and accountants' responsibility and would not know of such ventures. The non-response rate was 73.3 percent.

Commenting on areas academic departments could explore and invest for IGR, an in-depth interview respondent remarked that:

"There is no income generating activity within the universities that is sustainable enough to generate sufficient IGR to meet the funding requirement. One such venture which is not sustainable is the agriculture farms which all the universities operate. These farms could rear animals, crops, poultry, but the main purpose of these animals and the like are for research. And research consumes a lot of money. It is not economically viable. If you have hundred chickens, out of the hundred chickens, 50 of them will be used for research. Hence, you can't sell them. So, those cannot operate economically. The only sustainable thing is to charge for the things that we do; for instance, fees for admission" UM02)

Another respondent indicated that:

"Each public university operates with an ACT that defines how it is funded and clearly, the universities for some time past fully depended on government for funding and now that government funding is inadequate, they have devised means of generating their own resources to finance their programs" (ME01).

7.2.1.2 Management of IGR Resources

a. Transparent Use of Available IGR

Figure 7.3 below shows the responses to question 20 on whether the respondent's institute/department is transparent about the use of IGR. Respondents who indicated that there is transparency in IGR use constituted 60 percent of all respondents (24, 12, 8 and 16 respectively per institution), while 17.4 percent (2.7, 4, 4, and 6.7 respectively per institution) stated that there is no transparency in the use of IGR. Respondents who did not know if management was transparent or not about the use of IGR constituted 22.6 percent (1.3, 1.3, 8, and 12 respectively per institution) and this was ; higher than respondents who indicated that management was not transparent about the use of IGR. The KNUST had the highest number of respondents at 24 percent who have confidence in management about the transparent use of IGR, while the UG had the highest number of respondents at 12 percent who did not know whether IGR was used transparently.



Figure 7.3 Transparent Use of Available IGR

Source: Field Data (2017).

b. Reasons for Transparent or Non-Transparent Use of Available IGR

Feedback to question 20ii stating reasons for transparent or non-transparent use of IGR in the departments are indicated below.

Reasons for transparent use of IGR:

- Finance Office vet and authorize all funds used
- Adequate accountability instruments in place
- Regular auditing and monitoring of the use of funds
- All funds mobilized and spent go through the accounting processes
- Every expense is properly accounted for.

Reasons for non-transparent use of IGR:

- Faults are not reported to lecturers
- Not aware of how funds are used
- Not all spending is known
- Don't know.

The non-response rate was 64 percent.

A respondent explained the relevance of being transparent and prudent with the use of scarce financial resources in the period of state continuous subvention cuts and remarked that:

"Most public universities have financial policies to regulate financial resources using the NCTE (Co-urinating Secretariat of tertiary education in Ghana) rules as a guide. "So, in terms of financial policies, it is about how you increase your revenue generation and how you minimize cost. So that is the summary of the policy. We strategically work towards prudent use of our scarce funds and other resources to ensure sustainable funding. Because if you earn GHS100 and you squander it, it will appear you are not earning anything but if you earn GHS100 and use it judiciously, you can sustain yourself. For example, if two people are given GHS100 each and one uses his/hers judiciously, you will see him/her to be earning more than the other person. So perhaps we can cut cost and if we do that, we may be able to sustain ourselves. It's not only increasing income" (LU02).

Commenting on how beneficial prudent and efficient use of resources have proved to be, a respondent intimated that:

"In my university funds allocated for specific projects with longer implementation period are treated as reserve funds. The University's policy is that no fund should remain unutilized. The University therefore operates a centralized funds management system and funds that are allocated to projects that are yet to start are mobilized and invested which yield good returns; but very mindful of the areas we invest as public-sector organization. Faculties and departments are allocated funds that is adequate for their routine day-to-day operations. You will be interested to know that this administration block has been constructed solely from interest that we were able to generate from funds that were waiting to be deployed for their purposes" (FD01).

7.2.1.3 Staff Motivation for Successful IGR Involvement

a. IGR Involvement and Professional Progression

Respondents' feedback to question 23 on whether the success of academics in revenue generation for the university is used as promotion criteria is reflected in Figure 7.4 below. Some 37.4 percent of respondents confirmed that their successful engagement in IGR activities enhanced their professional progression while 46.6 percent indicated that their success in IGR activities does not contribute to their professional progression, and16 percent of respondents who did not know.

Figure 7.4 IGR Involvement and Professional Progression



Source: Field Data (2017).

One respondent explained the link between staff professional progression and their involvement in IGR mobilization and indicated that:

"Academic staff in departments and schools that have a lot of projects undertake many research works which generates IGR and at the same time come out with many publications for promotions quickly compared to their colleagues without such research projects. If you are a prolific researcher who is capable of writing excellent proposals and wining research grants, they will reflect in your research publications. And your research publications will lead to your promotion. It is not that you have brought in money per se. The money you are bringing is supposed to fund your research but where is the end point of your research? It is for publication. So, if you use the grant very well and did the research that you said you will do, you end up in publishing and it is the publications that we need to promote you. So, those who do serious research and they publish will rise faster" (FD01).

b. Direct Benefit for IGR Involvement by Better Working Conditions

Respondents answered questions 24 and 25 about receipt of any benefits (financial/salary/in kind) as academics for successful engagement in IGR, or if successful engagement in IGR leads to better conditions for staff. Table 7.1 below indicates that 32 percent of respondents receive direct benefit while 49.3 percent of respondents do not receive any direct benefits, with 18.7 percent who do not know of any benefit for successful involvement in IGR operations. However, 56 percent of respondents confirmed that improved IGR mobilization improves working

conditions in terms of staff sponsorship to attend conferences, workshops, funding of research activities in their departments and other benefits. Twenty-four and 20 percent of respondents indicated no improved working conditions with improved IGR or do not know of such benefits respectively.

Direct benefit for successful IGR involvement	Successful involvement in IGR leads to better working conditions (research facilities, conference attendance etc)			
	Yes	No	Don't Know	Total
	Percent	Percent	Percent	Percent
Yes	28	4	0	32
No	18.7	17.3	13.3	49.3
Don't Know	9.3	2.7	6.7	18.7
Total	56	24	20	100

Table 7.1 Direct Benefits for IGR Involvement by Better Working Conditions

Source: Field Data (2017.)

7.2.1.4 Mounting Market-Oriented Academic Programs and Commercial Research

a. Designing and Mounting Academic Programs for IGR

Figure 7.5 below gives the feedback from respondents to question 26 on whether their departments have introduced market-oriented academic programs with the sole purpose of mobilizing additional resources in the period since 2010. Respondents who confirmed having mounted demand-driven academic programs since 2010 constitute 53.3 percent, while 37.3 percent of respondents indicated that no new academic programs had been mounted with the purpose of attracting IGR, with 9.3 percent could not tell whether any changes had been made.

Figure 7.5 Designing and Mounting Academic Programs for IGR



Source: Field Data (2017).

Commenting on how the universities are adopting pragmatic measures to access IGR from the increasing number of youth who have a great desire for university education, a respondent intimated that:

"Public universities are autonomous academic institutions with their Councils charged to ensure adequate funding for their various institutions. Apparently, almost all the universities have embraced both traditional and non-traditional IGR mobilization exercises but the most sustainable income generating activities in the universities is to charge for the things we do; that is, charge for the core mandate of teaching, research, and community engagement/consultancy services" (UM02).

Explaining further the popular traditional sources of IGR to the universities, a respondent indicated that:

"Most of the universities are engage in distance education and sandwich programs. Revenue from the distance education and sandwich programs are dependent on the fees students pay which is influenced by students' enrollment and we only run academic programs that can at least, breakeven. Where candidates that qualify for admission are not up to the number that is needed for those programs to break even, we advise that those programs are not run and that is because there is no money anywhere to be used to fund such programs" (FD01). Explaining the genesis of academic fee-paying programs in the universities despite the provision in the 1992 Constitution that does not permit tuition fees payment by Ghanaian citizens at any level of education, a respondent stated that:

"Public universities were confronted with capacity (infrastructure and staffs) challenges that limited them to enrolling less than 30 percent of qualified applicants unto their universities academic programs. As the way forward, and to minimize the admission pressure, a university submitted a proposal to government to be permitted to expand admission to qualified applicants who could not be admitted through the universities regular admission process, but their parents were rich enough to pay fees. Admittedly, some of these rich parents were sponsoring their wards for university education abroad and were paying huge sums of foreign currency, and therefore, fee-paying package for their wards in Ghana was a welcome news for them" (UM02).

A respondent explained further that:

"Government reluctantly agreed to the proposal and the process was commenced, using part of the proceeds to compensate lecturers for extra work done and engage new lecturers to teach in the universities. The initial program was a success and the net revenue assisted the university to procure logistics, office facilities and equipment, carry out renovation works, and other expenditures government could not provide. This then was the genesis of the fee-paying academic programs, with different universities giving different names such as: parallel programs, special programs, sandwich programs and many others. (UM02).

Another respondent elaborated on the benefits of the fee-paying programs and echoed that:

"The facility has become very popular that some programs are run on 50-50 basis, that is; 50 percent of regular admission and 50 percent base on fee-paying. The programs that are attractive to the students are mostly the business and humanities; and some units of the sciences. The fee-paying package was extended to foreigners and initially there were high pressure on admission especially from foreign applicants from the West African sub-region, with Nigeria leading in foreign applicants. Unfortunately, few Ghanaians are able to patronize the facility currently, due to the high fees charge, therefore, mostly international students are now on the fee-paying facility" (UM02).

Commenting on the relevance of market-oriented academic programs in the IGR efforts of the universities, a respondent explained that:

"The academic departments in the various universities are strategically being creative and innovative to design industry-oriented academic programs to attract students for IGR. If people feel that the program they pursue would be very beneficial the cost will not be an issue. For instance, MBA programs are very expensive outside, but people still do it because they know that holding MBA from this university would enhance their chances of getting employment within the shortest possible time. The employment would also make them earn very high salary and within this number of years, they can pay off any loan taken to sponsor that education and will live comfortably" (LU03).

Explaining the universities' ability to attract and maintain the international students, a respondent remarked that:

Initially, international students' applications were so high that we have to choose and reject some applicants, however, we have lost about 90 percent of the international students to the private universities, and the reasons are simple. International fee-paying students are subjected to the same examinations since the same certificate is issued after graduation and therefore the same educational processes are also pursued. Because our rules on academic quality are very strict, if you fail three times, you are dismissed, you won't get the certificate and that has cost us. We have sacked some international students for non-performance and they simply relocate to the private universities and they obtained first class. So, what has changed so drastically, that a student who was failing, moves to another place and he/she gets first class?" (UM02).

The respondent stressed that:

What has not helped the public universities with the foreign students' intake is the fact that most of the private universities are mentored by the public universities and issue the same certificates to the students of the private universities on graduation. Further, the private universities fees for the foreign students is low compared to the public universities therefore, most international students prefer to enroll at the private universities instead of the public universities. I tried to stop a foreign student from leaving my business school to a private university we are mentoring because he is a good student. His response was: No, I am paying US\$6000 to come to your university meanwhile, I can go to this private university and pay US\$3000. He walked out and getting admission in the private universities is not a problem. He retorted, in my country, nobody knows the difference between the two universities, they are both in the same city. So, we have given affiliations to private universities to kill us" (UM02).

Another respondent remarked that:

"Because international students pay high in terms of fees in public universities and with little underperformance they are also withdrawn, most of them currently enroll in the private universities because, "at the end, they will be given certificate of the public university they are affiliated to. So, if it is difficult passing your examinations in the public universities, and you can even pay less amount and go through at the affiliated university, why do you worry yourself coming here?" (FD01).

Expressing a further challenge inhibiting international students' admission into the fee-paying programs, a respondent indicated that:

"Currently, the financial policy directives on international funds transfer of some countries in West Africa sub-region that highly patronize the fee-paying programs is making it difficult for international students to be enrolled and pay for the programs cost" (UM01).

Another respondent explained that:

"The sustainability of the IGR academic programs depend on us continuing to get students enrolling on our programs. But what we have experienced over the period is that given the increasing competition in the higher education landscape in Ghana, the distance education and sandwich students' enrollment has been going down and it is not something which is peculiar to one institution alone. However, there is a very high likelihood that obviously, there would be distance education students and there would be sandwich students, just that the increase that we have experienced may not be sustained going forward" (FD01).

b. Research Agenda and IGR Mobilization

Respondents answered questions 27 and 28 which asked if the faculty agenda has been changed to attract IGR and whether such changes refocused departmental research towards external needs. Table 7.2 below indicates that 57.5 percent of respondents confirmed having changed

their research agenda to attract IGR, while 36.9 percent of respondents stated no changes have been made to attract IGR. However, 46.5 percent of respondents indicated having refocused their research agenda to attract external users who would pay for the research outcomes. Some 28.8 percent of respondents stated that no such changes to the research agenda has been made to favour external users in exchange for their monies, while 24.6 percent could not tell if any changes have been made to attract IGR.

Changes in Research	Refocusing research agenda towards applied			
Agenda for IGR	research for external needs			
	Yes No Don't Know		Total	
	Percent	Percent	Percent	Percent
Yes	43.8	9.6	4.1	57.5
No	2.7	17.8	16.4	36.9
Don't Know	0	1.4	4.1	5.5
Total	46.5	28.8	24.6	100

 Table 7.2 Research Agenda and IGR Mobilization

Source: Field Data (2017).

c. Research Cooperation for IGR

A further question, question 29, was asked to establish if respondents' departments had any research cooperation with stakeholders to attract IGR. From Figure 7.6 below, 65.3 percent of respondents' departments have research cooperation with stakeholders purposely to attract funding, while 33.3 percent of respondents have no IGR-motivated research cooperation with external donors.

Figure 7.6 Research Cooperation for IGR



Source: Field Data (2017).

A respondent explained the relevance of research grants to the universities and indicated that: "Public universities explore grant proposal writing to win research grants. Unfortunately, many of the staff of the universities do not have the grant writing skills and the universities have not invested in individuals to develop those skills through DFID, USAID and others training programs on grantmanship. Acquiring grantmanship skills would equip staff to write and win more grants to the university. Because if the grant comes, at least, the institutional overhead come directly to the university; the higher the grant, the higher your institutional overhead" (LU03).

7.2.2 Accounting Professionals' Strategies for IGR Mobilization

The plans and action designs to mobilize IGR in the universities, from the view point of the accounting professionals, are reported in this section. The accounting professional's sole responsibility is ensuring good fund management in the universities and their stance on how to attract and manage IGR to mitigate the effects of state subvention decline on quality delivery of the universities' mandate is very vital.

7.2.2.1 Exploiting the Existing IGR Sources

a. Efforts at Improving Existing IGR Sources

Figure 7.7 below shows the feedback from respondents to question 19 about efforts made to boost the projected revenue to finance planned programs and projects in the universities in a given year. Most respondents indicated that universities would increase Academic Facility User

Fees (AFUF) as the first line of action to raise the required monetary resources needed for its operational survival: 59.4 percent of respondents. The second option would be soliciting funds from donors as stated by 21.9 percent of respondents. Negotiating for loans with soft interest was the least mentioned option as indicated by 3.1 percent of respondents.





A respondent explained the universities' modus-operandi in mobilizing financial resources to meet immediate needs and remarked that:

"An effective strategy we adopt to finance and successfully implement our academic programs is shifting cost to students, a respondent explained. Teacher education in particular, the standards are high and keep on changing. You are required to provide continuous supervised mentorship for the student-trainees. You have to move the lecturers to go out and coordinate, supervise, and examine students. Those in the NGOs and the Communities, we do the same thing when they are on practice leave because they have to do the practical and it is quite expensive. So, we have had to shift some of the burden to students. We have to charge them to be able to do these things because it is also about their future and ability to demonstrate that they have come to learn, and they have experience. However, because there are other universities if our fees are higher than others, we must be losing potential applicants" (UM02).

Source: Field Data (2017).

b. Expansion of the IGR Base

Respondents were asked in question 20 whether their universities have expanded their sources of IGR since 2010 and Figure 7.8 below shows the responses. Half or 50 percent of respondents indicated that their institutions have expanded their sources of IGR since 2010, while 18.8 percent indicated no, with 31.2 expressing no knowledge of IGR sources expansion.





■Yes ■No ■Don'tKnow

The follow-up question 21 asked about revenue items that have been added to the IGR list to mobilize extra revenue since 2010 and respondents listed the new items below:

- Printing press through Build, Operate, and Transfer (BOT)
- Commercial bookshop
- Investing dormant funds
- Building of hostels/commercial guest houses
- Increase in service charges
- Consultancy services
- Distance education programs
- Faculty short courses
- Increase in students' enrollment
- Privatize loss-making units

Source: Field Data (2017).
- Introduction of new graduate academic programs
- Introduction of fee-paying and parallel academic programs
- Commercial meat processing
- Vehicle repairs/servicing
- Sachet water production
- Swimming pool recreational facility
- Clothing production
- Soap making
- Hiring of academic gowns.

7.2.2.2 Engagement in Academic and Non-Academic Commercial Ventures

a. Exploring Staff Consultancy Services for IGR

Respondents were asked in question 22 how universities deal with their staff who engage in consultancy services while they remain full-time staff and Table 7.3 below shows the feedback. A majority of 40.7 percent of respondents indicated that full-time staff are not encouraged to engage in other work, while 28.2 percent of respondents indicated that they are permitted to undertake consultancy services and a percentage of earnings is paid to the university. Some 21.9 percent of respondents explained that the university has no records of those engaged in consultancy work or full-time workers engaged in consultancy work, while 9.4 percent also indicated that those doing consultancy works do not pay any revenue from their extra income to the university. From among the universities, 12.5 percent of respondents each from KNUST and UG indicated that full-time staff are not permitted to engage in extra income activities. However, 12.5 and 6.3 percent of respondents from KNUST and UG respectively indicated that a percentage of their extra earnings from consultancy works is paid to the university. Again, KNUST and UG indicated that every staff member engaged in consultancy works pay a percent of extra income earned to the university. Further, 9.4 percent of respondents from the UG indicated that there are no records on full-time staff engaged in consultancy works.

Table 7.3 Exploring Staff Consultancy Services for IGR

Staff Extra Income Management	Institution				
	KNUST	UDS	UEW	UG	Total
	Percent	Percent	Percent	Percent	

Full-time staff not allowed to engage in	12.5	6.3	9.4	12.5	40.7
other work					
No records on staff with another source of	3.1	3.1	6.3	9.4	21.9
income					
Percentage of extra income paid to the	12.5	6.3	3.1	6.3	28.2
University					
Staff earning extra income don't honor	0	6.3	3.1	0	9.4
their commitment					
Total	28.1	22	21.9	28.2	100

Responding to question 23, respondents indicated the percentage of extra income from consultancy services that full-time staff are supposed to pay to their universities and this is shown in Table 7.4 below. Respondents who indicated that 10 percent of extra earnings from consultancy services is paid to the university constituted 12.5 percent, while 9.3 percent of respondents stated that 5 percent of extra earning is paid to the university if facilities of the university were used. The non-response rate is 68.8 percent.

Staff Extra Income	Institution							
Paid to the University	KNUST	UDS	UEW	UG	Total			
	Percent	Percent	Percent	Percent				
5% If University facility was used	3.1	3.1	0	3.1	9.3			
10%	9.4	3.1	0	0	12.5			
Not more than 15%	0	0	0	3.1	3.1			
20%	3.1	0	0	0	3.1			
60%	0	0	0	3.1	3.1			
Non-Response	12.5	15.6	21.9	18.8	68.8			
Total	28.1	21.9	21.9	28.1	100			

 Table 7.4 Percentage of Extra Earning Payable to the Institutions

Source: Field Data (2017).

b. Exploring Non-Academic Commercial Activities to Improve IGR

Respondents answered question 24i on whether they subscribe to the universities engaging in non-academic commercial activities to mobilize IGR and Figure 7.9 below gives the responses. As shown on Figure 7.9, 78.1 percent of respondents indicated yes, to public universities exploring non-academic commercial activities to improve their IGR mobilization while 12.5

percent objected to non-academic commercial activities. Just 9.3 percent of respondents could not decide whether the non-academic commercial activities were worth pursuing in public universities.



Figure 7.9 Exploring Non-Academic Commercial Activities to Improve IGR

Respondents' feedback to question 24iii stating reasons for the universities not to engage in nonacademic commercial activities for IGR included:

- Conflict with the universities' mandate of quality teaching and learning
- IGR should be raised from academic related ventures
- Core mandate may be undermined with quality of products compromised
- May divert attention from the main objectives of the universities
- Universities must focus on their academic purpose.

A respondent explained the efforts of the university to expand its IGR base to improve funding and stated that:

"Obviously a major strategy my university adopt, which most public universities are also doing is engagement into non-traditional sources of IGR generation such as: "operating a printing press; university farms; filling station, pharmacy, water bottling. Some of these commercial activities have been brought under one entity which is registered in my university as 'Commercial Services Limited'. We are not only focusing on the provision of academic services,

Source: Field Data (2017).

but we also have to think like private entities in that direction to be able to generate revenue for the university" (FD01).

On how the non-traditional commercial ventures are funded, a respondent indicated that:

"In my university these non-traditional IGR ventures are funded by the university's reserves built over the years that are used to set them up. They are autonomous entities different from the university and make its own decisions, appoint staff and pay them. But the good thing is that all these commercial entities are subjected to critical analysis before they are established to be sure that they are going to generate profit and so whatever money we invest in is definitely gained over appropriate periods of time" Where the investment expands beyond the university's reserves, bank loan would be accessed for recapitalization. However, if the bank interest rate is 30 percent and above the investment would be expensive and not viable" (FD02).

7.2.2.3 Efficient Financial Plan and Management

The focus of this section reports on plans and methods adopted by the universities to optimize costs in their operations and achieve the same quality output to ensure value for money.

a. Maintaining Minimal Budget Overrun

Respondents' feedback to question 25 on how the universities manage their annual expenditure to minimize budget overrun in a fiscal year is shown in Table 7.7 below. From this table it can be seen that 34.2 percent of respondents indicated that monthly expenditure returns are sent to the departments and centers to guide spending to minimize expenditure overrun while 22 percent of respondents stated that spending officers should stop further spending on any item that exhausts its annual budgetary provision. Other measures for ensuring minimal budget overrun are:

- Review of budget to reconsider critical project that exhaust its budgetary provision before completion by 15.7 percent of respondents
- Seeking approval from management to spend on critical projects that exhaust its annual budgetary provision – 15.6 percent of respondents
- Utilizing any available funds on any project as deemed necessary 12.4 percent of respondents.

All the respondents claimed their institutions adopted all the measures mentioned in Table 7.5. At the institutional level, 28.2 percent of respondents indicated that both KNUST and UG adopt most of the measures indicated listed in Table 7.5 to ensure minimal budget overrun, while 21.8 percent of respondents stated UEW employs all the measures for minimal budget overrun and optimum use of financial resources. Some 21.7 percent of respondents indicated that UDS adopts some of the measures for minimal budget overrun.

Managing Annual	Institution					
Budget Overrun	KNUST	UDS	UEW	UG	Total	
	Percent	Percent	Percent	Percent		
Monthly expenditure						
returns to guide	12.5	9.3	9.3	3.1	34.2	
spending						
Spend available						
funds as necessary	0	9.3	0	3.1	12.4	
Expenditure stops if						
funds allocated is	6.3	3.1	6.3	6.3	22	
exhausted						
Budget reviewed to						
consider critical	6.3	0	3.1	6.3	15.7	
projects with						
exhausted vote						
Approval sought for						
spending on critical	3.1	0	3.1	9.4	15.6	
items with						
exhausted vote						
Total	28.2	21.7	21.8	28.2	100	

Table 7.5 Maintaining Minimal Budget Overrun

Source: Field Data (2017).

Commenting on how IGR funds are used in their university, a respondent remarked that:

"My university often record between three to five percent budget deficit annually and provision is made in subsequent the budget to pay the suppliers we owe. The challenge is that some academic leaders are not knowledgeable in financial management and are not interested in prudent use of scarce funds. When you advise him/her as a technical staff on finances on the need for prudent use of funds the response is, l am the Vice Chancellor, l can take your advice or not" (LU02).

Another respondent indicated that:

"In my college expenditures on academic activities are made without too much emphasis on value for money because focusing on economics of expenses will often affect quality of output" (UM02).

Commenting on delivering quality education vis-à-vis efficient use of IGR funds, a respondent indicated that:

"Some of the programs have more practical and field work that students' have to go to the field, lecturers will have to go with them to supervise, their accommodation, their feeding etc. So, we look at all these without focusing on the value for money for if you say you are going to be very particular about value for money, you may have to cut some of the programs because they are not really generating any income. Of course, we are training minds, and these are areas particularly, engineering that are very important to society and Ghana in general but in reality, funds we receive from these units are not much" (UM02).

A respondent echoed the need for prudent use of IGR funds in the era of declining state subvention and intimated that:

"The university systems should be professionalized to ensure efficiency and value for money; there should be discipline in our expenditures. The Universities Councils should help in appointing professionals with business acumen who understand both academic and commercial activities and money making to enable the universities move ahead. Again, lecturers employed should have the minimum teaching load of twelve credit hours a week instead of the current situation where a number of lecturers have two courses of six credit hours a week which do not maximize the use of scarce resources" (LU02).

b. Managing Unpaid Bills in a New Budget Design

Respondents' answer to question 26 on how the universities treat unpaid bills owed to clients when designing a budget for a new fiscal year is indicated in Table 7.6 below. Unpaid bills are not considered in university budget design but payments are made when funds are available said 50 percent of respondents. However, 43.8 percent of respondents stated that unpaid bills are incorporated into any new budget design and treated as unpaid arrears, while 6.2 percent of respondents indicated that all bills are settled before a new budget is designed and no arrears are carried over into a new fiscal year. At the institutional level 28.1 percent of respondents each for KNUST and UG indicated that these two institutions design similar budget in respect of treatment of unpaid arrears while 21.9 percent of respondents each for UDS and UEW also treat their budget in a similar style.

Treatment of Unpaid Bills when	Institution							
Designing a New	KNUST	UDS	UEW	UG	Total			
Budget	Percent	Percent	Percent	Percent				
Unsettled bills are not considered but payments made when funds are available	15.6	12.5	12.5	9.4	50			
Bills are incorporated in the new budget and as unpaid arrears	12.5	9.4	6.3	15.6	43.8			
No arrears are carried over to the new fiscal year	0	0	3.1	3.1	6.2			
Total	28.1	21.9	21.9	28.1	100			

Table 7.6 Managing Unpaid Bills in a New Budget Design

Source: Field Data (2017).

c. Managing On-Going Projects in a New Annual Financial Plan

Figure 7.10 below gives respondents' feedback to question 27 on how incomplete projects with funds exhausted are treated in a budget for the subsequent year. From Figure 7.11, 56.2 percent

of respondents indicated that incomplete projects are incorporated in the new budget designs for completion annually, while 28.2 percent of respondents explained that incomplete projects are not incorporated into new budget designs but are continued and completed when funds are made available. Respondents who indicated that incomplete projects with exhausted funds are reprioritized among other projects for consideration constituted 12.5 percent, while 3.1 percent of respondents indicated that incomplete projects with exhausted funds are abandoned when designing a new annual budget.



Figure 7.10 Managing On-Going Projects in a New Annual Financial Plan

Source: Field Data (2017).

7.2.2.4 Adoption of Effective Logistics Support

a. Policy Document for IGR Mobilization

Respondents' feedback to question 28 on whether the university has designed an IGR policy to improve upon internal revenue generation is shown in Figure 7.11 below. Respondents who confirmed that the university has a policy blue-print to guide and regulate IGR mobilization constituted 40.6 percent, while 25 percent indicated that there is no policy document to guide IGR mobilization, with 34.4 percent of respondents who did not know if there is such a policy document or not.



Figure 7.11 Policy Document for IGR Mobilization

Source: Field Data (2017).

b. Effects of Policy Blue-Print on IGR Mobilization

Question 29 asked how the effects of the policy implementation had affected IGR generation and the responses are shown in Figure 7.12 below. Clearly, 18.8 percent of respondents indicated that the policy guide had improved IGR generation. Other responses given were: improved cash flow by giving direction on how IGR funds should be disbursed: 6.3 percent; prescribed motivation for successful engagement in IGR: 3.1 percent; and minimal effect on IGR mobilization: 3.1 percent. The non-response rate is 68.7 percent.







c. Availability of Database for Effective Budget Design

Respondents' feedback to question 30 on whether the University has developed a reliable database for annual revenue and expenditure projections is shown in Figure 7.13 below. Respondents who confirmed that the universities have a reliable database for the design of annual budgetary projections constituted 65.6 percent, while 6.2 percent indicated that such reliable database does not exist. Some 28.1 percent of respondents were undecided and could not admit or deny whether the university has developed any database.



Figure 7.13 Availability Database for Effective Budget Design

d. Required Facilities and Systems for Improving IGR Mobilization

Respondents' feedback to Likert-type items from question 31i on facilities the university has put in place to improve IGR mobilization since 2010 is shown in Table 7.7 below.

From Table 7.7 below, 37.4 percent of respondents agreed that the universities have created IGR Coordination Centers to support IGR mobilization while a further 37.5 percent of respondents disagreed to the above assertion. As many as 25 percent of respondents were undecided. The majority of respondents constituting 68.7 percent confirmed that public universities' management were transparent with the use of IGR while 12.6 percent held a divergent view, with 18.8 percent of respondents' undecided. Respondents assessed how the creation of fund-raising

Source: Field Data (2017).

experts in the universities could facilitate and improve IGR mobilization. Respondents who agreed that the presence of fund-raising experts would improve IGR generation constituted 59.4 percent, with as many as 31.2 percent undecided on how the fund expert could or could not impact on IGR in the universities. Evidently, 65,6 percent of respondents felt that the universities had not engaged the services of the fund-raising expert, with 21.9 percent of respondents not being able to indicate if such experts were engaged or not. However, 12.4 percent confirmed that some universities have engaged the services of fund-raising experts. Some 68.7 percent of respondents confirmed that public universities have planning manuals that guide their annual revenue projections while 18.8 percent could not confirm or disagree that there is a planning manual.

Facilities and Systems	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
by stering	Percent	Percent	Percent	Percent	Percent	
Establishment of IGR Co-ordination centers would support revenue mobilization	6.2	31.2	25	25	12.5	100
Management is transparent with the use of IGR	12.5	56.2	18.8	9.4	3.2	100
IGR would increase if fund-raising experts are hired	25	34.4	31.2	9.4	0	100
The university has engaged the services of fund-raising experts	3.1	9.4	21.9	40.6	25	100
Available planning manual to guide annual revenue projection	3.1	65.6	18.8	9.4	3.1	100
University has a strategic plan to enhance IGR generation	28.1	40.6	15.6	12.5	3.1	100

Table 7.7 Required Facilities and Systems for Improving IGR Mobilization

A majority of 68.7 percent of respondents confirmed that public universities have designed a strategic plan to guide and enhance their IGR generation activities, while 15.6 percent of respondents disagreed that such planning manuals are available to guide revenue generation. A further 15.6 percent could neither confirm nor disagree that the planning manual is available.

e. Specific Actions to Improve IGR Mobilization

Respondents further answered Likert-type questions 31ii on specific actions adopted to improve IGR mobilization since 2010 and Table 7.8 below gives the responses. From Table 7.9 below, a majority of respondents, constituting 78.1 percent strongly agreed and agreed, that their university is exploring many sources to generate IGR, while 12.5 percent were undecided on whether diverse sources are being explored or not. Respondents were divided on whether public universities are able to achieve the annual revenue targets in their budgets. While 28.1 percent of respondents confirmed that annual revenue targets are attained in public universities, 40.6 percent disagreed that revenue targets had been achieved in recent years. Some 31.2 percent of respondents were undecided. Further, 40.6 percent of respondents agreed that staff at the universities are actively involved in IGR generation planning while 34.4 percent disagreed, with 25 percent undecided

Some 50 percent of respondents confirmed that universities define their revenue targets and communicate same to all IGR generation stakeholders to guide their IGR mobilization efforts while 34.3 percent disagreed that revenue targets are set and communicated to stakeholders. Some 15.6 percent of respondents were undecided. A further issue raised was whether public universities pursue mid-year reviews of their budgets to guide implementation. While 31.2 percent of respondents confirmed that mid-year budget reviews are undertaken, 43.8 percent of respondents disagreed that any mid-year budget review is done, with 25 percent of respondents' undecided. Evidently, 68.7 percent of respondents disagreed that public universities give out quarterly revenue plans to departments to guide their revenue mobilization efforts, while 18.8 percent of respondents were undecided on the issue. Finally, 53.1 percent of respondents disagreed that the IRG mobilization processes were prone to corrupt practices while 21.9 percent

confirmed that the processes of IGR mobilization are exposed to corrupt practices, with 25 percent of respondents' undecided.

Actions for Enhanced IGR Generation	Strongly Agree Percent	Agree Percent	Undecided Percent	Disagree Percent	Strongly Disagree Percent	Total
The University is exploring many sources to generate IGR	25	53.1	12.5	3.1	6.2	100
University can achieve the revenue targets set in its annual budgets in recent years	6.2	21.9	31.2	31.2	9.4	100
Staff actively participate in IGR planning	0	40.6	25	34.4	0	100
Annual IGR targets are defined and communicated to stakeholders	6.2	43.8	15.6	31.2	3.1	100
Mid-year review of IGR projection is undertaken	0	31.2	25	34.4	9.4	100
Detailed quarterly revenue plan given to guide IGR Mobilization	0	12.5	18.8	53.1	15.6	100
IGR mobilization exposed to corruption and misused	9.4	12.5	25	37.5	15.6	100

Table 7.8 Specific Actions to Improve IGR Mobilization

Source: Field Data (2017.)

7.2.3 Student Leaders' Strategies for IGR Mobilization

Student leaders are very important clients in the universities and their views on IGR mobilization plans are vital as state subvention to the universities continues to decline. Apparently, improved funding in the universities would improve the quality of delivery of its mandate of teaching, learning, research, and community engagement, and consequently enhance student learning and skills acquisition. Again, student leaders serve on university councils and finance committees and their inputs are therefore deemed relevant to the plans and methods to be adopted to improve IGR mobilization in the universities.

7.2.3.1 Accessing Public Subvention

a. Relevance of Public Subvention

Respondents were asked in question 26i whether they subscribe to the recommendation that universities should not be financially supported by the state but should be financed solely through IGR and the feedback is illustrated in Figure 7.14 below. Respondents who indicated no to subvention withdrawal constituted 82 percent, while 13.5 percent agreed to its withdrawal. Thus, 82 percent prescribed to payment of public subvention to the universities.





b. Justification for Accessing or Not Accessing Public Subvention

Reasons for Accessing Subvention

Respondents' feedback to question 26ii on the reasons for universities to access or withdraw from public subvention are indicated below:

- High achieving but needy students will be disadvantaged
- The less privilege ones will suffer because of high fees

Source: Field Data (2017).

- Unfair privilege will be given to the rich in society
- Subvention payment will reduce the cost of education and encourage learning at the tertiary education level
- Subvention will reduce the financial stress on students and allow them to concentrate on their studies for effective learning
- Education is a necessity and the state should invest in tertiary education as a responsibility
- Subvention helps smooth running of the universities
- Universities will be overburdened with looking for funding for their many programs
- Non-payment of subvention will reduce university enrollment and increase dropout rate
- Need to train human resource for nation building
- To prevent the universities from becoming private enterprises and charging high fees
- To enable the universities to offer quality education
- Poor infrastructure in the universities which requires government support to survive
- Unhealthy competition among the universities which will reduce academic quality.

Reasons for Subvention Withdrawal

Justification for withdrawal from subvention payment (question 26ii) are:

- Enough from fees and investments
- Should enter into commercial ventures and agriculture for IGR
- Subvention places a burden on the state
- Subvention may not be reliable
- Subvention payment encourages mismanagement and corruption
- University management will be committed to searching for alternative funding.

7.2.3.2 Engagement in Non-Academic Commercial Ventures

Respondents' feedback to question 27i on whether the universities should be involved in nonacademic commercial ventures to mobilize IGR is indicated on Figure 7.15 below. Respondents who recommended that universities should extend their IGR activities to non- academic commercial ventures constituted 53 percent, while 26 percent of respondents indicated no, to non-academic commercial ventures. Again, 21 percent of respondents did not know what the universities should do.



Figure 7.15 Engagement in Non-Academic Commercial Ventures

■ Yes ■ No ■ Don't Know

Source: Field Data (2017).

A follow-up question 27ii asked respondents to indicate the non-academic commercial ventures that the universities could explore to improve upon its IGR and the responses are listed hereunder:

- Estate development beyond student hostels for renting
- Hospitality management and fast food chain
- Commercial recreation centers
- Commercial water production
- Shopping mall
- Waste management
- Commercial advertising
- Financial services i.e. banking services

- Non-financial services i.e. micro credit management
- Commercial farming
- Laundry services
- Commercial energy production i.e. solar, biogas.

Respondents' feedback to question 27iii on the reasons why universities should not be engaged in non-academic commercial ventures for IGR are listed as:

- May divert students' focus from academic work
- Will compromise academic quality
- Universities' core mandate will be diverted
- Losses or bankruptcy could adversely affect academic quality
- Universities will exploit students with high fees
- Universities are not-for-profit institutions
- Will increase the cost of university education.

7.2.3.3 Transparent Use of IGR Funds

Respondents' feedback to question 28i on whether the university management is transparent with the use of IGR funds is shown in Figure 7.16 below. Clearly, 53.9 percent of respondents indicated no knowledge of transparent or non-transparent use of IGR by university management, while 37.1 percent of respondents indicated that university management is not transparent with the use of IGR. Respondents who confirmed that university management is transparent with the use of IGR constitute 9 percent.



Figure 7.16 Management and Transparent Use of IGR

A follow-up question, question 28ii, asked respondents to state the reasons why university management is either transparent or not transparent with the use of IGR funds and the feedback is indicated below.

Reasons cited for university management's transparent use of IGR:

- Universities provide basic amenities
- Universities make available records upon request
- Universities account for what IGR is used for
- IGR information easily available
- Universities have well defined systems for payment
- Internal audit systems ensure transparency in funds use.

Reasons cited for non-transparency with IGR funds:

- Students are not briefed on how IGR is used
- Increases in students' fees despite government payment of subvention
- Universities do not make their bank statements available to the public
- Universities do not involve student leaders in their financing
- Universities do not account for spending
- Bad state of academic infrastructure despite fees paid
- High corruption at the universities
- Universities do not account for SRC dues accurately
- Cannot explain very well at Parliament how funds are used
- Do not see the relevance of fees paid because of poor state of facilities.

A respondent indicated that the university management is not open when dealing with students and remarked that:

Public universities at times levy students for the purposes of procuring laboratory equipment and other teaching and learning materials (TLMs). Some of these items are either never procured or inadequate quantities are purchased despite students paying the levy for a couple of years knowing well that the equipment is very essential in their practical work. Some university management have confirmed that sometimes students are levied for project "A" but government didn't release money for "B," then they have to use the project "A" money to sort out "B" at the expense of the things that students paid for. We can't say there has been a transparent usage of the IGR, for its purpose or intended purpose. A couple of years ago students were levied GHC100.00 each to upgrade roads in a particular university with about 50,000 student population. The levies were paid but the works done did not merit the total amount students paid. There are times my office team up with local SRC offices to resist management on some of such levies, and the recent utility bill levies is a case in point" (NP01).

7.2.3.4 Improving IGR Mobilization

Respondents' feedback to question 29 on how to improve upon IGR mobilization in the universities is indicated in the responses below:

- Attract more foreign and local students for fee-paying programs
- Increase students' enrollment
- Intensify commercial ventures
- Prudent use of funds
- Fund raising activities
- Motivate alumni/corporate bodies to donate
- Bank loans to expand infrastructure and expand admission
- PPP into transport business
- Applied Research for IGR
- Designing and mounting new academic programs
- Higher fees charges
- Adequate motivation for all IGR activities
- Reduce administrative expenses
- Seeking sponsorship packages
- Transparency and accountability with the use of IGR
- Provision of quality facilities for higher fees
- Engage in commercial ventures with the university community as a ready market

- Reduce students' fees to attract more students
- Proper monitoring and evaluation of IGR.

7.3 IGR Expenditure Patterns in the Universities: Accounting Professionals' Views

Universities spend IGR mainly on implementing programs and projects other than payment of workman's compensation as the public subvention virtually covers staff salaries. This section therefore identifies the major areas of IGR spending in public universities. As accounting professionals deal directly with project funding documentation, the focus of this discussion is centered on the accounting professionals who have access to the required information for the study. Again, the accounting professionals can give a general account from the perspective of the faculty/school where their span of operations cover, unlike the other survey respondents whose span of operations are limited to a department.

7.3.1 The Level of IGR Support for Development Projects

Respondents' feedback to question 33 on the percentage contribution of IGR to programs and projects of public universities' annual budgets since 2010 is illustrated in Table 7.9 below. Some 53.1 percent of respondents indicated that IGR supports programs/projects but do not know the level of such support committed since 2010. Some 15.6 percent of respondents stated that more than 30 percent of IGR had been invested in projects since 2010 while 12.5 percent of respondents confirm that at most, 10 percent of IGR had been invested in projects at their university since 2010. Only 18.8 percent of respondents indicated that between 11-30 percent of IGR had been invested in projects at the university.

Rate	Percent
1-10	12.5
11-20	9.4
21-30	9.4
31+	15.6
Don't Know	53.1
Total	100

Table 7.9 The Level of IGR Support for Development Projects

Source: Field Data (2017).

The allocation of IGR to the various sections and units was explained by a respondent who indicated that:

"The universities have many decentralized academic and non-academic departments and each of these sections are allocated funds depending on the source of the fund. The composition of fees paid by students is diverse and therefore funds allocation methods also differ with student numbers determining the quantum to be allocated to the colleges or faculties and other departments. Some funds are shared among different segments of the university, while others are transferred directly to the beneficiary faculty/department. In all, allocation procedures are based on the Finance Committee approved methods" (FD01).

Commenting on a new IGR allocation guide to be implemented in 2017/2018 academic year, a respondent stated that:

"All revenue from fee-paying programs are put together irrespective of who generated what. 20 percent will go to the university's administrative body; 40 percent will be for infrastructure development for the entire university, depending on the critical needs of departments and priorities of the university, and not for the department that generated the IGR. The remaining 40 percent, 5 percent will be used for pension for all staff, while 35 percent will be shared among all staff of the university, according to ranks: professor, senior lecturer, lecturer, assistant lecturer and their analogous grades". The thinking is that where some lecturers have the opportunity to teach on such programs, other lecturers are given other university's assignment to do. We are all working and helping one another for the good of the university therefore, everybody must benefit equally from the total cake" (UM02)

Another respondent remarked:

"The funds allocation and expenditure trends are mostly for administrative costs for running academic programs. The specifics are: procuring teaching and learning materials, office facilities and equipment, payment of external assessors of academic works, monitoring and evaluation of students' especially practical works, furnishing offices, procuring books and journals for library, improving academic scholarship, physical infrastructure and others. Again, IGR funds from popular academic programs is what sustains less popular programs with low student patronage and help to keep such programs running. Generally, without IGR the expected revenue to support the universities annual operations will be minimal and this will call for review of planned annual programs and possibly reduce annual output (UM01).

7.3.2 Specific IGR-Supported Projects since 2010

Responses to question 34 on respondents' awareness of any major project initiated and supported with IGR in the universities since 2010 is shown in Figure 7.17 below.



7.17 Figure Specific IGR-Supported Projects since 2010

Clearly, most 71.8 percent of respondents confirmed the contribution of IGR to major projects while 28.2 percent indicated that IGR had supported projects at the section but did not know the actual projects. Importantly, no respondent indicated that IGR had not supported projects.

7.3.3 List of IGR Projects

Respondents' feedback to question 35 provided a list of IGR-supported projects in the universities since 2010 as shown below.

KNUST

- Building of lecture theaters
- Building of roads
- ICT infrastructure

Source: Field Data (2017).

- Examination complex block
- Expansion of distance learning projects
- Expansion of KNUST School of Business
- Laboratories
- New Faculty of Pharmacy Complex.

UDS

- Lecture halls
- Offices for students
- Lecturers office
- Hostel facility
- Pavilions for lectures
- Purchase of laboratory equipment
- Clinics in Wa and Navrongo campuses
- ICT lab at the Tamale Teaching Hospital.

UEW

- Finance administration block
- Pecku building
- New administration block.

UG

- Cage fish project
- Small animal hospital
- Paving of pedestrian walk ways
- Construction of canteens
- Phase 1 of SPH building
- Provision of clean water
- Lecture halls
- Students hostels (PPP)

• Banking halls.

7.3.4 Impact of IGR-Supported Projects in the Universities

Respondents' feedback to question 36i on whether the IGR-supported projects have given the universities a facelift is shown in Figure 7.18 below.



Figure 7.18 Effects of IGR-Funded Projects

Source: Field Data (2017).

Respondents who confirmed that the IGR-supported projects have enhanced the public image of public universities constitute 71.9 percent, while 25 percent of respondents indicated that they have no knowledge of such positive image posturing of the universities.

7.3.5 Reasons Cited for the Positive Effects of IGR-Supported Projects

A follow-up question 36ii on reasons cited for the facelift that the IGR projects have given to the image of the universities are given as follows:

- Improved access to facilities for use by both staff and students 31.3percent
- Beautification and staff/students convenience 12.5 percent
- Enhanced academic work 12.5 percent
- Facilitated mounting of new academic programs 3.1 percent
- Improved students enrollment- 3.1 percent

• Improved work attitudes – 3.1 percent.

The non-response was 34.4 percent.

Commenting on the contribution of the IGR-Supported projects to the effective delivery of the mandate of the universities, a respondent explain that:

"The funds inflows from IGR activities, especially, the fee-paying programs are so immense. You go around the universities, go to the Business School Area, there are huge projects there, we are undertaking two projects, one is a post graduate block for business school, the other faculty of social sciences block, each of them is costing about Gh¢15 million (US\$3.3m). We are funding them entirely from the IGR, we are not receiving any cedi from government. Many of the projects we did, including the beautification walkways that you are seeing that are under construction, everything is from our IGR because government only pays salaries. The subvention that is given us is sufficient to cover only salaries. The rest of the budget, nothing comes for that purpose. Meanwhile the university is functioning, we use computers, we use furniture, recurrent expenditure and the likes. Every recurrent expenditure is from the IGR" (UM02).

7.3.6 IGR Expenditure on Staff Motivation

Table 7.10 below gives feedback from question 37i which asked respondents about motivation packages for staff who attract IGR to the universities. Respondents who confirmed that there is a motivation package for staff who are successful in IGR mobilization in the universities constituted 50 percent, while 18.8 percent of respondents indicated no such motivation package. Some 31.3 percent of respondents did not know if such motivation package existed or not. Respondents who did not know or indicated no such facility existed and those who indicated that there is no such package, together constituted 50 percent. While UG and KNUST were on a par with knowledge of a motivation package, recording 28.1 and 28.2 percent respectively, UDS and UEW also recorded 21.9 percent of respondents each who confirmed the existence of the facility.

Institution	Motivation Package for Staff Engaged in I Mobilization						
	Yes	No	Don't Know	Total			
	Percent	Percent	Percent	Percent			
KNUST	15.6	6.3	6.3	28.2			
UDS	9.4	3.1	9.4	21.9			
UEW	15.6	6.3	0	21.9			
UG	9.4	3.1	15.6	28.1			
Total	50	18.8	31.3	100			

Table 7.10 IGR Expenditure on Staff Motivation

Respondents' feedback to question 37iii to explain how the motivation package is funded in the universities indicated a 71.9 percent non-response, while 28.1 percent of respondents indicated that the motivation packages are financed from the IGR.

In explaining how the state funding decline has greatly eroded staff motivation for IGR mobilization involvement in respect of personal financial benefits, a respondent remarked that:

"Staff involvement in IGR services such as sandwich/summer academic programs, consultancy services apart from generating revenue for the university are also supposed to adequately remunerate staff involved as teaching on these programs are deemed to be extra work. In the past, we used to have compensation package that apart from paying the direct cost for the time that you spend in teaching, after all the other cost have been taken what is left, a percentage is reserved and paid as bonuses to those who were involved directly in the teaching. The incentive packages have drastically dwindled as staff do extra work but are not compensated adequately because the little mobilized should be reserved to supplement AFUF to run the academic departments" (LU03).

7.3.7 Rating of the Use of IGR in the Universities

Respondents' feedback to Likert-type questions 38 (I, ii, and iii) to rate how efficiently the universities use IGR funds to improve upon academic work, improve upon academic staff welfare, or improve upon non-academic staff welfare is shown in Table 7.12 below.

Rating the Use of	Very Good	Good	Average	Poor	Very	Total
IGR					Poor	
	Percent	Percent	Percent	Percent	Percent	
Efficiency in the	43.7	25	25	6.3	0	
use of IGR to						
improve academic						100
work						
Efficiency in the						
use of IGR to	40.6	28.1	21.9	6.3	3.1	100
improve academic						
staff welfare						
Efficiency in the						
use of IGR to						
improve non-	21.9	31.3	28.1	15.6	3.1	100
academic staff						
welfare						

Table 7.11 Rating of the Use of IGR in the Universities

From Table 7.11 above, 68.7 percent of respondents rated the efficient use of IGR to improve upon academic work as very good, with 25 percent of respondents rating the use of IGR for academic work as average. Some 68.7 percent of respondents confirmed that the use of IGR resources to improve upon academic staff welfare was very good while 21.9 percent of respondents rated as average, the use of IGR to improve upon academic staff welfare. Fifty three percent of respondents further rated the efficiency of the use of IGR to improve upon non-academic staff welfare as good compared with 28.1 percent of respondents who rated it average. A respondent explained how the university management invests IGR funds into infrastructural projects to improve upon academic facilities and remarked that:

"The university funds a number of physical infrastructural projects with IGR but in areas suitable to management which do not directly benefit my constituent members. We mostly find them investing in the comfort of the student accommodation, providing facilities for them and all others which is good. In the university our roads have been done using IGR some structures for academic facilities have also been put up and all that. So, I have no reason to think that the funds are being misused. What I can say is that, yes, it is good to invest in the students and infrastructure, but it will also be prudent to invest some of these in staff motivation so that the staff can also have a feel because at the end of the day, they generate the fund. But they don't seem to feature too much

when it comes to the use of the funds. A lot of our members don't have accommodation on campus, they live far away and have to battle traffic to work and all that. Even though there are some little investments, we think they could do more in staff development" (LU03).

7.4 Effects of IGR Mobilization on the Mandate Delivery of the Universities

This section looks at the impact of increasing IGR mobilization resulting from the decline in subvention on teaching, research, access and learning which are the core mandates of universities. The focus is on academic heads and student leaders' respondents.

7.4.1 Impact of IGR Mobilization on the Universities' Delivery: Academic Heads' Viewpoint

7.4.1.1 Relevance of IGR on Faculty Capacity Development

a. Human Resource Capacity of Faculty

Respondents' feedback to questions 30, 31, and 32 on the size of their faculty, gender ratio, and PhD holders among them in the department is shown in Table 7.12 below. The responses indicate that within the faculty there is a total of 1032 faculty member, with a gender ratio of 70.5 and 26.8 (728 + 277) percent of males and females respectively. Non-responses came from 17 persons. Faculty members with PhD degrees comprised 64.5 percent of respondents, with male PhD holders constituting 78.2 percent (50.5 percent of total faculty) and females making up 19.2 percent (12.4 percent of total faculty).

 Table 7.12 Human Resource Capacity of Faculty

	Faculty Size by Gender					
Faculty Size	Males		Females			Total
(75 Departments)	Freq.	Percent	Freq.	Percent	Freq.	Percent
1032	728	70.5	277	26.8	1005	97.3
Non-Response	4	0.4	13	1.3	17	1.7
Total	732	71.6	290	28.4	1022	100
	Termin	al Degree	by Gen	der		
Terminal Degree Holders	Males		Females		Total	
(75 Departments)	Freq.	Percent	Freq.	Percent	Freq.	Percent
Response	521	78.2	128	19.2	649	97.4

Non-Response	6	0.9	11	1.7	17	2.6
Total	527	79.1	139	20.9	666	100

b. IGR Support for Faculty Training in PhD Degree Programs

Respondents' feedback to question 33i on faculty members who have been supported with IGR fully or partly to pursue PhD programs since 2010 is shown in Table 7.13 below.

Evidently, 30 academic heads (academic departments) representing 40 percent of respondents have been fully or partly sponsored by IGR; at most, five (5) faculty members for a terminal degree, while seven (7), constituting 9.3 of respondents have also trained at least 21 faculty members each for a terminal degree since 2010. The non-response/don't know constituted 36 percent of respondents and was the second highest feedback observed. Respondents that indicated sponsorship for almost 20 faculty since 2010 was 2.7 percent.

Beneficiaries	Frequency	Percent
1-5		
6-10	5	6.7
11-15	4	5.3
16-20	2	2.7
21+	7	9.3
Non-Response/Don't Know	27	36
Total	75	100

Table 7.13 IGR Support for Faculty Training in PhD Degree Programs

Source: Field Data (2017).

c. Type of Sponsorship Package

A follow-up question 33ii was asked to identify the type of sponsorship package offered with IGR for the PhD training of faculty members is shown in Figure 7.19 below. Clearly, 21.4 percent of respondents paid tuition fees in terms of the expenses involved in IGR supported terminal degree training for their staff, while 20 percent paid all expenses. Respondents who have never sponsored any terminal degree training program in the universities since 2010 constitute 36 percent. Respondents that had paid for beneficiary's monthly stipend, air ticket, and transport costs constitute 9.3 percent, with 6.7 percent having paid air ticket and transport costs only.



Figure 7.19 Type of Sponsorship Package

d. IGR Sponsored Conferences/ Workshops since 2014

Table 7.14 below shows the responses to question 34i which asked for the number of faculty members fully or partly supported with IGR to participate in academic conferences or workshops since 2014. From Table 7.15, 44 percent of the academic departments have sponsored at least 21 faculty staff each while another 40 percent have sponsored a maximum of 5 faculty staff each. Only 5.3 percent of departments have sponsored a maximum of 10 staff, while 4 percent have sponsored at most, 15 faculty members.

Beneficiaries	Frequency	Percent
1-5	30	40
6-10	4	5.3
11-15	3	4
16-20	1	1.4
21+	33	44
Non-Response/Don't Know	4	5.3
Total	75	100

Table 7.14 IGR Sponsored Conferences/Workshops Since 2014

e. Conferences Sponsorship Package

Figure 7.20 below which indicates responses to question 34ii on the type of sponsorship package for faculty members who attended conferences/workshops had a 76 percent not applicable/non-response rate. Respondents who indicated that an approved grant for such programs constituted 10.7 percent, while 2.7 percent each indicated either payment of air ticket or air ticket and per diem. Respondents who indicated that all expenses were paid constituted 1.3 percent.





Source: Field Data, 2017

A respondent stated that IGR plays a vital role in the quality delivery of the university's mandate and remarked that:

"Though there are challenges associated with over reliance on IGR as a major source of funding, it is very useful in improving quality of teaching and learning. "We sponsor people to go on scholarships, attend conferences, to present papers, support research and even to acquire terminal degrees. I am sponsoring somebody from the law department, to go to South Africa for a PhD, nothing is coming from the government. It is from the IGR; the IGR does more than what you can think of" (UM02).

7.4.1.2 The Role of IGR in Faculty Research Agenda

a. Research Focus and IGR Mobilization

Table 7.15 below gives respondents' feedback to questions 36i and 36ii which asked whether departmental research focus is motivated by the desire to intensify IGR mobilization. Respondents who confirmed that their departmental research agenda had been restructured to focus on IGR generation constituted 58.7 percent, while 36 percent of respondents indicated no change in their research agenda. A small 5.3 percent did not know if such changes had ever been done. Clearly, 48 percent of respondents confirmed that the departmental research agenda is mostly focused on user-driven projects external to local needs, while 27.9 percent disagreed, with 24 percent of respondents not knowing if the changes were user-driven for IGR mobilization or not.

Change in	Applied	or Use	r-driven	Research		
Department	(focus on external needs)					
Research Focus for	Yes	No	Don't	Total		
IGR Generation			Know			
	Percent	Percent	Percent	Percent		
Yes	45.3	9.3	4	58.7		
No	2.7	17.3	16	36		
Don't Know	0	1.3	4	5.3		
Total	48	27.9	24	100		

Table 7.15 Research Focus and IGR Mobilization

Source: Field Data (2017)

7.4.1.3 The Contribution of IGR to Office Facilities and Equipment

a. IGR Support for Furnished Offices

Respondents' feedback to question 37i on whether IGR has supported funding of furnished offices is shown on Figure 7.21 below. Clearly, 49.3 percent of respondents confirmed that IGR has been instrumental in providing furnished offices for faculty members, while 24 percent of respondents indicated that IGR does not contribute to providing furnished offices for faculty

members. Respondents who could not tell if IGR contributed to making furnished offices available to faculty members comprised 27 percent.



Figure 7.21 IGR Support for Furnished Offices

Source: Field Data (2017).

b. Level of IGR Support for Office Furnishing and Research Costs

Follow-up questions 37ii and 38ii were about the level of IGR support for furnishing of faculty offices and research funding provided the feedback shown in Table 7.16 below. From Table 7.17 below, 32 percent of respondents indicated 20 percent IGR support for the cost of office furnishing. Only 5.3 percent of respondents said support was at least 80 percent of the total cost of office furnishing. Respondents who do not contribute anything towards faculty members' office refurbishing constituted 28 percent. On departmental research projects, 34.7 percent of respondents have not contributed anything towards funding, while 32 percent of respondents said they fund at most 20 percent of research costs. Respondents that confirmed that their department funds between 61 to 100 percent of total research costs make up 16 percent. A total of 41.3 percent of respondents (Nil and Non-Response) had not given any research funding support, compared with 30.7 percent of academic departments that had not supported funding of faculty members' offices refurbishing since 2010.

Level of IGR Funding	Office Furnishing	Research
Support	Percent	Percent
Nil	28	34.7
1-20	32	32
21-40	13.3	4
41-60	9.3	6.7
61-80	9.3	8
81-100	5.3	8
Non-Response	2.7	6.7
Total	100	100

Table 7.16 Level of IGR Support for Office Furnishing and Research Costs

7.4.1.4 IGR Drive and Faculty Workload

a. Impact of increasing IGR Drive on Workload

Survey respondents' answers to question 39i on whether the IGR drive in the department increased faculty workload are shown in Figure 7.22 below. Respondents who indicated that increasing IGR drive is accompanied by expanded faculty workload constituted 58.7 percent, while 29.3 percent of respondents stated that they don't know, with 12 percent who disagreed that there is an increased faculty workload resulting from increasing IGR drive.





b. Reasons for Increased Faculty Workload

Responses to question 39ii citing reasons for the increased workload resulting from increasing IGR drive were:

- Low number of lecturers teaching all courses
- High student intake but the same number of lecturers
- Lecturers have to work at weekends
- Increasing research activities
- Increasing academic programs but the same number of lecturers
- Pressure on faculty to market programs to increase students' intake
- Proposal writing and negotiation with potential funding agencies requires much effort and time
- The same staff with increasing workload teaching and researching
- Increasing amount of field work added to teaching load.

Feedback to question 39ii indicating that increasing IGR drive does not result into increase faculty workload are:

- Department has no IGR program
- Don't have heavy teaching load.

7.4.1.5 Expected Outcome of State Subvention Decline on Mandate Delivery

Respondents' feedback to question 41i on the expected outcome of the reduction in state subvention to public universities' mandate delivery is shown n Table 7.17 below.

Some 62.5 percent of respondents agreed that government's complete withdrawal of public subvention would necessitate commercialization of public universities while 33.4 percent disagreed with the assertion. Some 78.6 percent of respondents indicated that there would be staff downsizing should the state withdraw subvention payments to public universities while 10.7 percent were undecided on the effect of state subvention withdrawal on staff size. Further, 77.3 percent of respondents indicated that a reduction in public subvention would make public universities withdraw part of their annual programs and services rendered while 75.9 percent also

agreed that reduction in state subvention lowers the quality of teaching and research in public universities.

Altogether 68 percent of respondents further indicated that a reduction in state subvention could result in the phasing out of teaching of unattractive academic programs in the universities while 17.3 percent were undecided as compared to 14.7 percent of respondents who disagreed that unattractive academic programs would be phased out with a reduction in state subvention payment to public universities. Finally, 84 percent of respondents unanimously agreed that inadequate subvention payment to public universities render management ineffective while 80 percent of respondents also indicated that payment of subvention to public universities improves and enhances delivery of its core mandate.

Table 7.17	Expected	Outcome	of State	Subvention	Decline	on	the	Universities'	Mandate
Delivery									

Consequences of Reduction in	Strongly	Agree	Undecid	Disagree	Strongly	Tota
State Subvention	Agree		ed		Disagree	1
	Percent	Percent	Percent	Percent	Percent	
	17.0	17.0		10 -		100
Public subvention withdrawal	45.3	17.3	4	10.7	22.7	100
would require public						
universities to be						
commercialized						
Public subvention withdrawal	45.3	33.3	10.7	5.3	5.3	100
will necessitate downsizing of						
staff and reduced conditions of						
service in public universities						
Reduction in public subvention	37.3	40	6.7	13.3	2.7	100
necessitates withdrawal of						
some university services						
Reduction in public subvention	42.6	33.3	6.7	10.7	6.7	100
lowers the quality of teaching						
and research						
Reduction in public subvention	33.3	34.7	17.3	10.7	4	100
results in phasing out of						
unattractive academic						
programs						
Inadequate subvention makes	40	44	4	6.7	5.3	100
universities unsustainable and						
management ineffective						
State subvention greatly	52	28	4	6.7	9.3	100
---------------------------	----	----	---	-----	-----	-----
enhances delivery of core						
mandate						

Source: Field Data (2017).

A respondent explained the consequences of declining state subvention on the quality of delivery in the universities and observed that:

"Inadequate state funding for public universities adversely affect staff in the discharge of their mandate as the universities encounter challenges in procuring adequate teaching and learning materials required to enhance staff quality performance. The universities should be subscribing to certain first class international journals required for effective teaching and research. However, it is often the free journals that are subscribed which do not remain free forever. The proper thing is for the university itself to pay to access these journals, but the university is not paying and so members are not getting access to current issues. So, if on your own, you don't look out for these journals and you want to rely on what the institution will supply, you will be archaic" (LU01).

A respondent remarked that:

"Students even consider the facilities and environment of the institutions before choosing to study at a particular university. In such instance, the new public universities without good infrastructure and conducive environment, such as my university, find it difficult to enroll enough students for their academic programs; these things are expensive, they are costly, and so if there is no funding it becomes an issue" (UM03).

Commenting on the relevance of hands-on exposure for students and the need for regular review of academic curriculum, a respondent indicated that:

"Students are also sent out for internship and practical courses which require monitoring by the lecturers and these programs are very expensive, often part of the cost burden is shifted for the students to pay. Another vital program is curriculum reforms to design academic programs that meet national developmental needs, however, accreditation standard and cost are very expensive which stifles innovation as the state does not fund these programs. You won't believe that we have graduated our fifth batch of students and we still haven't been able to start masters' program in those areas; academics to teach at the masters' level must be senior lecturers but they are not in the system. Again, academic programs that are not well patronized by students' risk being phased out because of inadequate funding and most importantly, elective courses that do not attract a specified minimum number of students would not be mounted" (UM03).

7.4.1.6 Views of IGR Mobilization and Universities' Mandate Delivery

a. Outcome of IGR Mobilization Drive on Staff Delivery

Table 7.18 below gives respondents' feedback to question 41ii on the justification for IGR mobilization vis-a-vis the mandate delivery of academic heads in public universities. Respondents are divided on the effect of IGR generation activities on workload. Juts as 42.6 percent of respondents agreed that IGR activities increased workload of faculty members, 34.7 percent disagreed about any increase in workload as a result of IGR mobilization activities while 22.7 percent of respondents were undecided. However, 60 percent of respondents disagreed that IGR mobilization activities adversely affected the quality of staff output in public universities, but 24 percent of respondents indicated that IGR operations negatively affect the quality of staff output, with 16 percent of respondents being undecided.

Some 61.4 percent of respondents expressed their satisfaction with their current roles and responsibilities as compared to 32 percent who expressed dissatisfaction with their current roles and responsibilities in the universities. Further, respondents were divided on their current salaries. While 41.4 percent were not satisfied with their current remuneration at the universities commensurate with their duties and responsibilities, 38.7 percent of respondents indicated that their remuneration matched their current roles and responsibilities and are satisfied. As much as 20 percent of respondents were undecided as to whether they were satisfied with their current remuneration package. Evidently, 73.3 percent of respondents unanimously disagreed that resources to discharge their duties effectively were always available. Finally, 54.7 percent of respondents disagreed that IGR fully or partly finances their research activities while 34.6 agreed that IGR either wholly or partly finances research activities in their departments.

Explaining the shortcomings of extensive IGR operations on staff, a respondent intimated that: "IGR activities drag some academic staff behind in terms of their career progression in the universities. Such staff in departments with very large students' size are so much involved in regular programs teaching and IGR activities that they are unable to publish to be promoted" (UM02).

IGR Generation	Strongly	Agree	Undecided	Disagre	Strongly	Total
and Core Mandate	Agree			e	Disagree	
Delivery	Percent	Percent	Percent	Percent	Percent	
ICD drive has	21.2	21.2	22.7	22.7	10	100
IGK drive has	21.5	21.5	22.1	22.1	12	100
expanded starr						
Workload	10.0	10 5	4.5	245	27.0	100
IGR drive has	13.3	10.7	16	34.7	25.3	100
adversely affected						
quality of staff						
output						
Satisfied with	22.7	38.7	6.7	17.3	14.7	100
current roles/						
responsibilities						
Current salary is	6.7	32	20	34.7	6.7	100
fair and						
commensurate with						
my roles						
Resources for	5.3	12	9.3	40	33.3	100
effective discharge						
of duties is						
available						
Research	21.3	13.3	10.7	26.7	28	100
fully/partly funded						
with IGR						

Table 7.18 Outcome of IGR Mobilization Drive on Staff Delivery

Source: Field Data (2017).

b. Consequences of IGR Mobilization Methods on the Universities' Delivery

Table 7.19 below indicates respondents' feedback to question 41iii about their views on methods being adopted to mobilize IGR in the universities. Respondents were divided on the question of whether public universities should be managed like private business organizations for the purposes of mobilizing enough IGR for its operations. While 48 percent disagreed, 44 percent agreed that universities should be managed like business organizations. However, 56 percent of respondents disagreed with the notion of universities weaning themselves from public subvention as compared to 24 percent of respondents who agreed that universities should wean themselves from state subvention to enhance IGR mobilization. Clearly, 20 percent of respondents were undecided about whether universities should be weaned off public subvention. Respondents who unanimously agreed that designing and mounting market oriented academic programs would attract prospective students comprised 78.7 percent, while 14.7 percent of

respondents disagreed. A huge 97.3 percent of respondents overwhelmingly agreed that mounting attractive academic programs would attract and expand student enrollment. Finally, 82.7 percent of respondents agreed that the universities should establish IGR Coordination Centers to improve IGR generation.

Views on	Strongly	Agree	Undecided	Disagree	Strongly	Total
Consequences of	Agree				Disagree	
IGR Generation	Percent	Percent	Percent	Percent	Percent	
Methods						
Universities	14.7	29.3	8	26.7	21.3	100
should be						
managed like						
business						
organizations for						
IGR						
Universities to	10.7	13.3	20	37.3	18.7	100
wean themselves						
from public						
subvention for						
IGR						
Market oriented	38.7	40	6.7	10.7	4	100
academic						
programs will						
attract students						
Mounting	60	37.3	1.3	1.3	0	100
attractive						
academic						
programs expand						
student						
enrollment for						
IGR						
IGR Coordination	40	42.7	9.3	8	0	100
Centers will						
improve IGR						

Table 7.19 Consequences of IGR Mobilization Methods on the Universities Delivery

Source: Field Data (2017).

A respondent opined that the quest for IGR has made the universities deviate from the original purpose for their establishment and move into areas that would fetch them funds and stated that: *"There are non-specialized areas of academic disciplines in public universities as all institutions are entering into disciplines attractive to students and are prepared to pay for access. Now you*

find Science and Technology institution running liberal arts and others because that is where you get the students to pay, so you find that all universities are doing almost everything and that specialization that used to be there is no more there, and that if we go that way, we may not be able to train the needed manpower for our country's development agenda" (LU01).

Another respondent echoed that:

"We are looking for more IGR and that means we are biting more than our core mandate. We are also introducing courses which ordinarily are not part of our mandate. For instance, we are opening a law school very soon, which is not part of our mandate, because we kept our mandate and then we saw that the other universities are expanding. University of Ghana, Legon has started Engineering and Education; Kwame Nkrumah University of Science and Technology has started Law and MBA School; University of Cape Coast has started a Medical School and Law. So, we are sitting here focusing on our mandate of Development Studies, Agriculture and Medicine and so we are also beginning to introduce more courses, courses that ordinarily are out of our mandate" (UM01).

A respondent explained the consequences of universities deviating from their mandate for being established and observed that:

"Every university has her mandate: some are meant for technical, science and technology; others are meant for humanities and business programs and when the institutions deviate from their mandate they lose focus which create problems for the state. Currently, the science/technology and humanities ratio show that Art is rather higher than Science and Technology. However, government's policy is supposed to be 60:40 ratio- 60 percent for Science and Technology whereas 40 for Arts and Humanities. But because of the IGR drive in these universities it is rather the other way around. If government intends to increase science and technology students, the institutions that are supposed to ensure that we have higher number of science and technology students are rather diverting into humanities and other programs that can generate income for them. Unfortunately, the NCTE that co-ordinates tertiary education institutions in Ghana has some level of limitations with respect to authority in the Act that established it; it is an advisory body and cannot sanction. There is therefore a legislative agenda to review the Act to strengthen it to be effective" (ME01).

7.4.2 Effects of IGR Mobilization on Access and Learning in the Universities: Student Leaders' Stance

Students are vital stakeholders in university education funding and their concerns and consent are equally relevant in mobilizing IGR to complement declining state subvention if the education institutions are to enjoy peaceful and demonstration-free environments required for successful academic work. It is in this regard that student leaders' perspectives on the impact of state funding decline resulting in increased IGR mobilization in the universities was solicited.

7.4.2.1 IGR Management as a Substitute for Subvention Decline

Respondents' feedback to the Likert-type question 30i on the use of IGR to manage state subvention decline in the universities is shown in Table 7.20 below. Table 7.21 indicates that 70.8 percent of respondents confirmed that public university management is exploring every possible source to mobilize IGR to complement state subvention, though 19.1 percent of respondents remained indifferent. Further, 85.4 percent of respondents concluded that universities' high AFUF levy on students in order to close the funding gap resulted from the state reduction in state subvention. Some 56.2 percent of respondents attested that it is not a healthy development to witness universities in competition for students at both local and international levels to raise IGR. However, 21.3 percent of the students were undecided on whether such competition was healthy or not for the universities while 22.4 percent of respondents disagreed that such competition is unhealthy for the universities. On how IGR is utilized, 86.5 percent of respondents thought university management could do better with IGR to provide student support services for effective academic work, while 9 percent were undecided on the use of IGR to provide academic support services. Again, 41.6 percent of respondents could not indicate whether university management was efficient with the use of IGR while 33.7 percent disagreed that management's use of IGR was efficient, with 24.7 percent of respondents who confirmed the efficient use of IGR in the universities.

Outcome of Subvention Decline	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
and Cost Sharing	Percent	Percent	Percent	Percent	Percent	
Management is accessing all sources to generate IGR to complement state subvention	28.1	42.7	19.1	10.1	0	100
Reduction in state funding of universities makes management charge high academic facility user fees	38.2	47.2	10.1	4.5	0	100
Universities compete for students nationally and internationally to increase IGR which is not healthy for higher education	20.2	36	21.3	15.7	6.7	100
Management could do better with IGR to provide good students' support services for effective academic work	47.2	39.3	9	4.5	0	100
University management is very efficient in the use of IGR	6.7	18	41.6	27	6.7	100

 Table 7.20 IGR Management as a Substitute for Subvention Decline

Source: Field Data (2017).

7.4.2.2 Cost-Sharing and Associated Increasing Students Fees

Table 7.21 below shows the responses to question 30ii about increasing student fees resulting from cost-sharing in the universities. Respondents who confirmed that declining state subvention shifts the financial burden onto students in the form of AFUF payments to close the funding gap constituted 84.2 percent. Further, 85.4 percent of respondents unanimously agreed that currently students in public universities pay too much for AFUF. As a way of raising enough IGR to close the funding gap in public universities instead of depending on public grants, 57.3 percent of

respondents disagreed with the universities charging full tuition fees while students access government loans to pay the fees. However, 25.9 percent of respondents confirmed that universities charging full fees while students access government loans to pay was acceptable, while 16.8 percent of respondents remained indifferent. Some 50.6 percent of respondents agreed that students' payment of full tuition fees in public universities would ease the financial burden of government while 39.3 percent of respondents disagreed. Finally, 82 percent of respondents unanimously confirmed that student fees constituted a substantial percentage of university revenue.

Cost-Sharing and Increasing Students	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Fees	Percent	Percent	Percent	Percent	Percent	
Reduction in state subvention pushes financial burden onto students to close funding gap	49.4	34.8	11.2	1.1	3.4	100
Students in public universities are paying too much for academic and facility user fees	46.1	39.3	5.6	7.9	1.1	100
Universities must charge full fees while students access government loans to pay to reduce financial burden on the state	3.4	22.5	16.8	29.2	28.1	100
Student paying full tuition fees in universities will ease the financial burden of government	9	41.6	10.1	21.3	18	100
Student fees make up a substantial percentage of university revenue	40.4	41.6	13.5	3.4	1.1	100

Table 7.21 Cost-Sharing and Associated Increasing Students Fees

Source: Field Data (2017).

A respondent expressed concern about the increasing financial burden students are going through because of cost-sharing which is impacting negatively on student learning and remarked that:

"The quality of every academic institution is determined by the products it turns out but high AFUF makes self-sponsoring students become truants in lectures just to look for means to raise funds to pay the fees. "It means that some students may not be able to acquire the necessary knowledge because they would not be regular in the attendance of lectures. So, by the time they graduate, they are not well equipped the way they ought to be. Well, that affect the quality of the kind of graduates that come out just because of the generation of IGR, which clearly affects the quality and access of university education" (NP01).

7.4.2.3 The Importance of Improved IGR in Teaching and Learning

Respondents' feedback to Likert-type question 31i on the relevance of improved IGR mobilization in teaching and learning in the universities is shown in Table 7.22 below.

Apparently, 53.9 percent of respondents confirmed that IGR generated at the university is useful for improving academic facilities while 24.7 percent were indifferent to the relevance of IGR generation in the universities, with 21.3 percent who disagreed that IGR is used to improve academic facilities. Almost 90 percent (89.9%) of respondents agreed that improvement in IGR generation makes available resources to enhance infrastructure provision in public universities. Further, most respondents, constituting 65.6 percent, confirmed that an increase in IGR generated makes available improved teaching and learning materials for quality academic work, while 23.9 percent were undecided with 10.2 percent who disagreed that improved IGR necessarily improved teaching and learning facilities in universities. Again, most respondents constituting 59.6 percent indicated that improved IGR contributes to the provision of enhanced motivation packages for student academic excellence, a claim disagreed with by 13.4 percent of respondents while 27 percent of respondents were undecided.

Relevance of	Strongly	Agree	Undecided	Disagree	Strongly	Total
Improved IGR on	Agree	_		_	Disagree	
Quality Teaching	Percent	Percent	Percent		Percent	
and Learning						
Increased IGR at the						
university improves	9	44.9	24.7	15.7	5.6	100
academic facilities						
for use by students						
Improvement in IGR						
enhances general	31.5	58.4	5.6	4.5	0	100
infrastructural						
provision in						
universities						
Increase in IGR						
improves teaching	25.8	39.8	23.9	9.1	1.1	100
and learning						
facilities for quality						
academic work						
Improved IGR has						
made possible	18	41.6	27	11.2	2.2	100
enhanced motivation						
package for student						
academic excellence						

 Table 7.22 The Importance of Improved IGR in Teaching and Learning

Source: Field Data (2017.)

A respondent stressed the usefulness of IGR in the day to day management of the universities and stated that:

"Improved IGR generation plays supportive role towards achieving quality delivery of public universities core mandate. Administrative costs such as transport, equipment, stationery expenses are all financed with IGR; without which universities operations would come to a halt" (UMO2).

Explaining the vital role of IGR in ensuring that the universities remain on course in their mandate delivery, a respondent intimated that:

"The universities engage the services of part-time lecturers who teach critical courses and IGR is utilized to pay them as the government subvention for salaries do not cover the part-time lecturers. Again, interest on loans accessed to pay staff compensation are paid with IGR as government reimbursement of salaries to the universities are always without the accrued interests on the bank loans. Government subvention covers only workers' compensation and IGR is utilized to construct lecture blocks and other infrastructure to enhance and improve upon conditions which staff and students operate. You will be interested to know that this administration block has been constructed solely from interest that we were able to generate from funds that were pending to be deployed for their purposes. Availability of lecture rooms enhance quality of lecture delivery as large classes are broken into smaller and manageable units, but for the government freeze on employment which makes it difficult to engage new academic staff (FD02)

Another respondent remarked that:

Though the overheads from research activities are not significant the increasing research grant inflows and IGR projects execution are able to improve upon our laboratories and other facilities, while some have even built structures for the universities. Because where the project needs a certain standard of laboratory to execute, the project provides funding for that and some also provide funding to support PhD and MPhil students which help the universities" (UM01).

7.4.2.4 The Role of Marketization in Access, Teaching and Learning

Table 7.23 gives further information on Likert-type question 31ii with respondents expressing the benefits of marketization associated with extensive IGR mobilization. From Table 7.24 below, 46.1 percent of respondents confirmed that IGR drive gives market-oriented options for students, while 36 percent were undecided and could not tell if indeed, IGR drive gives many market-oriented program options for students. However, 17.9 percent of respondents disagreed that IGR drive gives students a variety of options for academic programs. Nonetheless, 89.9 percent of respondents confirmed that availability of many academic programs offer students the option to select academic programs of their choice and affordability. Some 38.2 percent of respondents could not decide whether commercialization of public universities with its associated competition makes lecturers attend lectures regularly or not, however, 35.9 confirmed that lecturers are regular attendees at lectures because of competition in universities resulting from commercialization.

		1				
Benefits of	Strongly	Agree	Undecided	Disagree	Strongly	Total
Marketization for	Agree				Disagree	
Enhanced Learning	Percent	Percent	Percent	Percent	Percent	
IGR drive makes						
available market-	10.1	36	36	15.7	2.2	100
oriented academic						
program options for						
students						
Introduction of						
many academic	31.5	58.4	2.2	5.6	2.2	100
programs have						
given students						
options to select						
those of interest and						
affordability						
Commercialization						
has introduced	5.6	30.3	38.2	24.7	1.1	100
competition and						
makes lecturers						
attend lectures						
regularly						
My academic						
advisor is helpful	21.3	31.5	20.2	19.1	7.9	100
and regularly						
attends to students						
Lecturers are						
committed to their	20.2	51.7	14.6	13.5	0	100
work and deliver						
professionally						

Table 7.23 The Role of Marketization in Access, Teaching and Learning

Source: Field Data (2017).

7.4.2.5 Adverse Impact of IGR drive on Teaching and Learning

Respondents' feedback to question 31iii explained the adverse effects of an extensive IGR drive on teaching and learning in public universities as shown in Table 7.25 below. Respondents who agreed that IGR drive increases the number of academic programs available for students and thus, increases lecturers' workloads constituted 55 percent, while 30.3 percent of respondents were undecided whether expanded academic programs increased lecturers' workload or otherwise. Further, a majority of respondents constituting 76.4 percent, confirmed that increased workload of lecturers negatively impacted on the quality of their delivery. Respondents were however inconclusive on the adverse effect of IGR on release of examination results. Some 46.1 percent confirmed that increased IGR drive results in late release of examination results, 30.3 were undecided, with 23.6 percent of respondents indicating that IGR drive does not affect release of examination results. Invariably, 76.4 percent of respondents attested to the fact that IGR drive has raised charges for use of university facilities while 79.7 percent further confirmed that the IGR drive has commercialized university education and made it very expensive and beyond the reach of qualified applicants from poor families. Again, most respondents, constituting 85.4 percent unanimously confirmed that high academic facility user fees negatively affect student enrollment in public universities with 10.1 percent remaining indifferent as to the effect of high academic facility user fees on student enrollment. Finally, 79.8 percent of respondents confirmed that the increasing IGR drive has made university education accessible to the rich few in society only.

A respondent observed that the extensive IGR mobilization activities in the universities without a corresponding increase in the number of faculty is a source of concern especially as it has adverse effects on the quality of teaching and intimated that:

"The search for IGR necessitates increasing students' numbers which impacts negatively on education quality. Currently lecturers adopt Multiple Choice Questions (MCQs) that encourages the use of machine to mark and reduce the stress on lecturers. However, MCQs will not permit the assessment of critical thinking processes of which is possible through essay-type questions which adversely affect the quality of university graduates. But if you are going to use the essaytype questions, and you have about 1,200 students taking a course in a regular program which is not even about the IGR. And then after the exam, you are given twenty-one days to submit your results, how are you going to be able to do that?". The freeze on new appointments is contributing to this large class sizes because where there are adequate lecturers' large classes will be split into manageable sizes with different lecturers assigned to different groups for the same course and make handling of assignments and marking manageable" (LU03).

Another respondent lamented on the different academic activities held on the university campus for IGR and observed that:

"Running of the regular and sandwich programs to generate IGR is very stressful and adversely affect the health of staff and quality of their delivery, but there is no option. The running of the

sandwich programs in particular is very compact; it starts seven o'clock in the morning and ends up late in the evening, because the time period is short, and students need to cover a lot so it is too stressful".

Another respondent stressed that the challenges of the IGR activities on staff and quality of delivery is very worrying: It is the same people who have just finished with the regular students and must prepare for the sandwich programs to commence. Just after that, the regular students will also be back and being human it is going to negatively affect you. It will affect you because you will not get enough rest to prepare yourself well for that job. Along that line, I think it affects quality as well. Other faculty members also do not put in much effort with their teaching responsibilities focusing so much on consultancy services which affect the quality of students trained" (UM01).

7.4.2.6 Issues around Cost Sharing, Access, and Quality of Learning in the Universities

Respondents answered the Likert-type question 32 and expressed their views on how cost sharing affected access and quality of learning in the universities and Table 7.24 below shows the responses.

Apparently, 71.9 percent of respondents indicated they cannot pay every component of fees levied on them by the universities while 22.4 percent confirmed their willingness to pay all fees mandated by the universities. Some 65.2 percent of respondents confirmed their willingness to pay all fees demanded by the universities if employment prospects after graduation were high, while 19.1 percent of respondents were undecided, and 15.8 percent disagreed that they would be able to pay all fees even if job opportunities were high. On students' willingness to pay additional fees should IGR generated be used efficiently to provide academic facilities to enhance academic work, 54 percent of respondents confirmed their willingness to pay additional fees, while 25.9 disagreed, with 20.2 percent undecided. Some 60.6 percent of respondents confirmed that an increase in IGR drive had expanded the workload of lecturers adversely, affecting their quality of delivery. However, 27 percent of respondents were undecided while 12.3 percent disagreed. In another development, 91 percent of respondents overwhelmingly confirmed the need for full sponsorship packages for brilliant but financially-needy students.

STATEMENT	Strongly	Agree	Undecided	Disagree	Strongly	Sourc
	Agree				Disagree	0.
I feel that I can always pay						е.
for all the components of my	6.7	15.7	5.6	39.3	32.6	Field
fees when asked to do so						Data
Students pursuing higher						Duiu
education are prepared to pay	32.6	32.6	19.1	12.4	3.4	(2017
higher fees if employment).
prospects after graduation are						<i>)</i> .
guaranteed						
Students are willing to pay						Furth
additional fees if revenue	18	36	20.2	16.9	9.0	
generated is efficiently						er,
utilized on facilities to						31.5
enhance academic work						
Increased revenue drive has						perce
increased the workload of	15.7	44.9	27	10.1	2.2	nt of
lecturers and adversely						
affected the quality of						respo
delivery						ndent
Brilliant but financially-						
needy students should be	56.2	34.8	5.6	3.4	-	S
fully sponsored by the						agree
university						1 41-4
Any form of fees payment at						a that
the university should be	14.6	16.9	19	37.1	12.4	any
abolished						form
University education is for						Iorin
the privileged few in society.	15.7	29.2	16.9	30.3	7.9	of
The private benefit to the						faas
recipient is far higher than the						ICCS
benefit to society at large.						in the
Beneficiaries of university						univo
education should bear the	4.5	25.8	18	36	15.7	
cost of accessing university						rsities
education						shoul

Table 7.24 Issues of Subvention Decline and Cost-Sharing/Access in the Universities

d be cancelled while 49.5 disagreed with fees cancellation, with 19 percent undecided. Some 44.9 percent of respondents agreed that university education was for the privileged few in society whose private benefits sought weighed the social benefits. On the contrary, 38.2 percent of respondents disagreed that university education is for the privileged few with greater private benefits than social benefits, while 16.9 percent of respondents were undecided. Finally, 51.7

percent of respondents disagreed that beneficiaries of university education should pay the full cost for accessing university education, while 30.3 percent of respondents agreed to full cost payment by university recipients, with 18 percent of respondents' undecided.

7.5 Conclusion

The chapter reports on the findings from the field studies, from the perspectives of academic heads, accounting professionals and student leaders, on the strategies and methods universities adopt to mobilize and use IGR to complement declining state subvention. The impact of the IGR on the mandate delivery of the universities is also covered. The main findings indicate the acceptance of the universities' need to mobilize IGR to complement declining state subvention to facilitate delivery of its core mandate of teaching, learning, research and community engagement. Most of the academic heads preferred mobilizing the needed IGR from academic programs for mounting market-oriented programs to charge fees from prospective students and engage in commercial research. However, the accounting professionals and student leaders emphasized both academic and non-academic commercial ventures for IGR. The fear that nonacademic commercial ventures will dilute and compromise the quality of teaching and learning is the justification for not entering into non-academic commercial ventures for IGR. The best way to raise funds, according to the academic heads, is to charge for what the universities are mandated to deliver. The need to publicize the universities through university-industry cooperation, exposes students to the practical components of the courses they study, in addition to expanding the IGR sources for adequate funds are the main reasons for academic and nonacademic commercial ventures being pursued in the universities from the standpoint of accounting professionals and student leaders.

Again, the findings indicate that effective management of IGR through transparent, efficient use of available funds and motivating staff to be involved in the resource mobilization are also important IGR strategies. Though management is generally considered to be transparent with the use of IGR funds, staff engaged in IGR mobilization are not motivated enough for their successful engagement in IGR. The findings further reveal that the universities have designed the dual-track system of admission where some students pay tuition fees, while others are not charged tuition fees but pay AFUF; the latter being a provision in the 1992 Constitution of Ghana. The dual-track system places prospective applicants from poor families at a disadvantage and denies them access, especially the very attractive academic programs that would easily secure graduates well paid jobs on graduation. It is further revealed that the fee-paying programs mostly target international students, but the private universities have adopted cost-cutting and "watering down" of academic quality measures to try and force the public universities from the international student market. The outcome has been that the private universities are enrolling 90 percent of the international fee-paying students in Ghana and depriving the public universities of their major source of IGR.

The findings indicate that IGR funds are instrumental in providing and improving upon academic infrastructure in the universities to enhance delivery of the universities' mandate, as well as expand access for students. The IGR-supported projects have enhanced the public image of the universities, though the infrastructural needs of the universities are inadequate and require further investments through improved IGR operations and state support. The findings further indicate the positive impact of IGR in developing staff capacity and providing furnished offices for staff as well as funding support for faculty research. The positive effects notwithstanding, the IGR drive is associated with expanded staff workloads which have had an adverse effect on the quality of staff delivery. The consequences of poor quality delivery has been ill-prepared graduates from the universities for the place of work which impacts negatively on the human resource needs of the country. Further, the IGR drive targets students as a good source of substitute funding in the face of declining state subvention, a situation which promotes inequality in society as prospective students from poor families are denied access. Again, the faculty research agenda is tailored to attract funds from external donors and that research outcomes are useful to the external financiers and not the local communities of the universities.

CHAPTER EIGHT DISCUSSION OF FINDINGS

8.1 Introduction

This chapter interprets and discusses the research findings as reported in the context of the five main research questions presented in Chapter one.

The research questions that guided the study were:

- i. What are the current experiences of staff and students with regards to state funding of public universities in Ghana?
- ii. What are the funding challenges and opportunities in public universities in Ghana?
- iii. What funding strategies have been employed to generate revenue in public universities in Ghana?
- iv. How are the available Internally Generated Revenue (IGR) or state funds spent in public universities in Ghana?
- v. How do the IGR strategies affect delivery of the core mandate of public universities in Ghana?

The rationale for this study was to delve into the funding dilemmas in public universities resulting from a decline in public subvention with the university institutions resorting to IGR mobilization to minimize the funding gap to effectively deliver their core mandate of teaching, learning, research and community engagement. The four universities involved in the survey were: University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), University of Education (UEW), and University for Development Studies (UDS). This chapter links the literature review in Chapter two to interpret the study findings guided by the research questions. The theoretical framework in Chapter three: neo-liberal, human capital, new public-management paradigm, and resource dependence theories are also used to interpret the findings.

8.2 What are the Current Experiences of Staff and Students with Regards to State Funding of Public Universities in Ghana?

The first research question of the study examined staff and student experiences of funding in the universities and is interpreted and analyzed using neo-liberal and the new public-management theory. Important principles of these theories are: the orientation towards reduction in state/public expenditure; privatization/monetization of state institutions as a solution to economic problems; an increasing use of exogenous and endogenous private sector methods of operation to deliver public services; and the state encouraging higher education management to be self-dependent and competitive. The three groups of survey respondents, namely academic heads, accounting professionals and student leaders answered questions in relation to their experiences of university funding. The university management, finance directors, labor union leaders, national president of students' union and selected directors of government institutions were the respondents who provided feedback to in-depth interviews which complemented the survey findings.

8.2.1 Reduction in Public Expenditure and University Mandate Delivery in Perspective

The literature reviewed indicated the relevant role of university education in training professionals and other practitioners through teaching, research, community engagement and dissemination of research output for the purposes of knowledge creation and utilization for national development (Benneh 2003). Despite the relevance of university education in the national developmental agenda, survey respondents acknowledged a decline in state financial support to the universities with 64 percent of academic heads attributing the state funding decline to the poor financial health of the nation. In addition to the poor national economic situation, there is pressure from competing demands on the scarce and deteriorating state finances by equally important social services such as health, basic education and other physical infrastructural needs which makes reliance on state funding for universities unrealistic and unsustainable. A university interview respondent indicated that the functions of the universities require extensive injections of financial and non-financial resources; with good academic infrastructure and a comfortable environment to attract quality staff. However, the state funding support is not adequate to cover workman's compensation of the university staff.

Obviously, the decline in state funding to the universities was informed by the neo-liberal ideology which prescribed lean public expenditure for developing economies grappling with economic deterioration and debt servicing resulting from a reduction in world market prices for their exports and a fivefold- increase in the world market price of oil, a major import commodity of developing countries (Peters and Marshall 1996). The growing financial challenges required state policy reforms with the private sector playing a vital role in service delivery to promote competition and efficiency in the use of resources to manage the government's balance of payment deficits and reduce inflation (Mudge 2008:703-705; Kraus 1991:30). Ironically, education which was considered a public good delivering public services that needed state funding was affected by the neo-liberal ideals. Thus, funding of university education which is considered to yield higher private benefits with higher social costs than social benefits to the beneficiaries should not be the sole responsibility of the state (Johnstone 2003). A university management interview respondent intimated that an important feature of university education is the greater prospects for the graduates in securing better employment for a promising middleclass life. Obviously, beneficiaries of higher education mostly commence work opportunities at higher levels and progress faster compared to workers without university education; so efforts towards poverty eradication and social exclusion should fundamentally be targeted at economic growth and employment creation (Mihai, Titan, and Manea 2015:857). This greater opportunity which is not available for basic education graduates motivates recipients and their families to willingly contribute to the cost of their university education. Government should therefore apply cost-sharing in university education to free resources to implement free quality basic education for all. The basic education training inculcates literacy and numeracy for all citizens; skills that are considered very useful in the agricultural sector and could enhance growth in agricultural development where the majority of the citizenry earn their livelihood.

Though the cost of university education is high compared to basic education, improved investment in university education and research is key to helping governments in SSA to overcome their developmental challenges. This requires large doses of investment that cannot be achieved without government funding support. The emergence of India onto the world's economic stage resulting from its promotion of high-quality, technically-oriented tertiary education for its citizens has given credence to the relevance of qualitative delivery of university education in promoting socio-economic development (Bloom et al. 2006:6-7). The inadequate state financial resources cannot justify government's near neglect and inadequate funding of public universities. Overemphasis on basic education training at the expense of tertiary education can frustrate the teeming numbers of youth who would wish to pursue tertiary education after their basic and secondary education. This group would be denied the opportunity due to inadequate facilities or high fees emanating from cost-sharing, especially prospective applicants from poor family backgrounds. Yankah (2018 cited in Kokutse 2018) has intimated that the free senior high school policy in Ghana would impact significantly on higher education growth and enrollment ratio by the year 2020 and make the current funding model in Ghana unsustainable. The 'Free Senior High Schools for All' in Ghana introduced in September 2017 is likely to exacerbate the current higher education access challenge by creating an "educational structural pyramid", with a very broad base of basic up to the senior high school graduates and a thin apex constituting tertiary education. The focus on universal basic education as a means of poverty reduction has its limitations and is not as potent as what could be achieved through tertiary education. According to Wedgwood (cited in King, McGrath, and Rose 2007:351) Tanzania attained universal basic education for her citizenry in the 1980s but this has not reflected sufficiently in economic development and widespread poverty reduction. Due to the multidimensional nature of poverty, policies for its eradication thrive well on quality education beyond basic education for instance, at the tertiary level which is capable of securing beneficiaries' economic future (Mihai, Titan, and Manea 2015:856). This calls for a pragmatic measure from stakeholders to fund university education.

8.2.2 Introduction of Private Sector Mode of Management Practice in the University

The state funding decline forces the universities to adopt effective means to manage their mandate delivery. Ball (2004) argues that new public management strategies adopt the private sector methods of operation to deliver public services and production to ensure accountability and efficiency and this constitutes the background for the discussion. Invariably, two types of privatization are identified, namely exogenous and endogenous; where the former (exogenous) is the use and involvement of the private sector to provide public services without profit motive (Ball 2004; Rikowski 2003). Endogenous privatization however involves the private sector in delivering public services for profit motives (ibid.).

Survey respondents subscribe to adopting the exogenous private sector methods of operation to deliver the university's mandate without profit motive, with 76 percent of academic heads opposed to the endogenous privatization which has a profit motive and not being appropriate to deliver education policies which is a social service. The exogenous method, though not profit motivated, makes the university adopt a managerial system towards becoming self-dependent, financially sustainable, competitive, ensuring equity and accessibility, quality delivery and efficiency in governance (Bishop 2007:1). Most respondents constituting 46.7 percent recommend that universities should intensify commercial activities to mobilize the needed resources to manage their annual programs in order to lessen dependence on the state for funding. A further 36 percent prescribed combining smaller academic departments to minimize operational costs and ensure greater fiscal discipline and frugal use of resources as espoused by Hood (1991: 3-5). A university management interview respondent explained that the prevailing environment is favorable for the commercialization of academic programs to produce the required funding as employment opportunities for university graduates are high and parents are prepared to contribute financially to ensure their wards have university degrees. Though commercializing academic programs to mobilize financial resources in the universities is without a profit motive, there are some prospective qualified applicants from very poor family backgrounds who may not be able to pay any form of fees to access university education and this is likely to create inequality in society. In explaining how universities manage their funding gaps resulting from the decline in state subvention, De Villiers (2012) had stated that management resort to fees increases which makes university education unaffordable for many potential students from poor families.

The current decline in state funding of universities is a deviation from the situation that existed in the period of the 1960s to 1980 where university education in newly independent SSA states received full funding support from their respective governments and international financiers (Barka 2013:4). The universities therefore adopt other measures not related to student fees to mobilize resources to complement state subvention without overburdening students and their parents. The decision to engage the private sector mode of raising additional resources resulted in the universities engaging consultancy services. Respondents' feedback showed that 54.7

percent confirmed their involvement in consultancy services. A finance director interview respondent explained that the university has a consultancy services policy where full-time staff of the university involved in personal consultancy services pay a percentage of their extra earnings to the university. The overhead cost component of the consultancy service is paid to the university. Further explanation was given that all proposals for research grants should be rooted through the Office of Research, Innovation and Development (ORID), and the application would be submitted under the name of the university as opposed to research done in isolation (without the university's involvement) which does not attract high research grants and the University's overhead costs will be minimal. The finance director interview respondent also indicated that first class universities in developed economies access the chunk of their funding from consultancy services through collaboration with industry. Through such collaborations some academic infrastructure and equipment resulting from grants for research projects have been made available to the universities.

Some staff engage in consultancy work and circumvent the prescribed procedures and thus deny the university its share of grant monies awarded. The 40 percent of the respondents engaged in consultancy services confirmed that the university is not aware of their consultancy engagement. A labor union leader interview respondent stated that the university management exploit staff labor in order to access extra funds to the extent of staff sacrificing their annual leave to do extra work with minimal direct benefit to themselves. Some staff have therefore become selfish and they win consultancy projects and use universities facilities to implement the projects but do not inform management, so the university can access its' share which reduces funds available to the universities. In assessing the consequences of the New Public Management model implementation on university staff, Clarke et al. (2012) had stressed that there is an increasing intensification of labor exploitation as a way of raising adequate funding, which manifests itself in extended work-loads, longer working-hours, inconsiderate employment contracts and management control systems. Such harsh conditions are likely to have a negative impact on staff which may not augur well for smooth management of any institution and require greater discipline and encouragement on the part of management and staff which are features of the New Public Management style (Hood 1991:3-5).

8.2.3 Commodification of State Services and Intensification of Labor Exploitation

The massification of university education coupled with a reduction in public subvention has necessitated the introduction of the 'market' as a new player in the operations of public universities where a business-like results-oriented management style is employed (Weiler 2000:333). The adoption of the new public-management style means public universities must explore private sector models to mobilize supplementary revenue to reduce their dependence on public subvention (Hodson and Thomas 2001). The outcome has been that the personal and professional lives of staff are highly affected by the infiltration of the corporate imperatives into the organizational structure of higher education which has led to increasing stress, job insecurity, diminishing self-confidence, alienation, feelings of guilt and other negative emotions (Ogbonna and Harris 2004).

Accounting professionals' respondents provided feedback on how the market-oriented policies and their related decline in public funding has impacted on the universities in their mandate delivery, showing that a majority of respondents, constituting 87.5 percent, confirmed that state funding decline compels universities to reduce their annual projected programs resulting in reduced productivity. Other effects on the universities of the decline in state subvention were: inability to honor indebtedness (59.4%); saddled with interest servicing for loans and overdrafts accessed in the banks (56.3%); difficulty in employing new faculty to replace retired ones (90.6%); and bad and tainted corporate image (53.1%). In explaining the challenges of the universities to appoint new faculty, a government institution interview respondent explained that the universities pay the monthly workman's compensation for the staff they employ without financial approval from the Ministry of Finance. He intimated that universities in dire need of faculty to sustain their departments seek approval from the Ministry of Education and NCTE and employ the needed faculty but pay them with IGR. A finance director interview respondent indicated that government does not pay part-time faculty engaged by the universities and his university spent about eight million cedis (US\$1.8m) in 2017 on part-timers, all from the IGR. The universities adopt measures to manage and remain in the business of implementing their mandate with far reaching consequences on staff.

A majority of accounting survey respondents indicated that staff are confronted with increased workloads as a result of having to explore extra funding opportunities (96.9%); there are delays in the honoring of legitimate staff wage claims (71.8%); a reduction in university sponsored staff conferences (71.9%); delays in payment of staff workman's compensation (50%); labor agitation, strike action, and reduced productivity; and workers accusing management of being difficult and insensitive to their welfare (59.4%). A group of academic heads constituting 18.7 percent expressed job insecurity while 4 percent were indifferent to job insecurity or not and this requires university management to assure staff of tenure of office to minimize labor turnover and enhance productivity. Again, academic heads' feedback on whether commercialization in the universities alters their routine roles, shows 60 percent of respondents indicating no, with 28 percent stating yes; irrespective of whether staff had terminal (PhD) or master's degrees. The changing roles are mostly in connection with assigning staff to new teaching courses especially in the summer and parallel commercial academic programs.

Feedback from respondents on how manageable their workload was resulting from the extensive operations of the universities' search for supplementary funding, had 41.3 percent of respondents indicating their workload was manageable, while 57.3 percent indicated that their workload was moderately manageable. This meant the majority of faculty have a high workload but must manage the situation under the prevailing circumstances which means the quality of their output is likely to suffer. Chomsky (2017) has explained that universities should be social institutions with democratic worker ideals where a tenured faculty should be able to determine his/her work schedule: what they are going to teach, when they are going to teach, and what the curriculum will be as well as decisions on the main work of the faculty. A labor union in-depth interview respondent emphatically stated that staff have heavy teaching loads with little time to rest. There is fatigue among staff coupled with inadequate remuneration which lowers quality of delivery and a combination of these factors makes the faculty work unattractive.

The problems listed by the respondents resulting from the decline in public subvention is a recipe for low morale among staff, reduced productivity both quality and quantity, and fertile grounds for industrial unrest which could hamper the smooth running of the academic calendar in the universities. Most of the challenges experienced in the universities as enumerated above are conflict-prone as staff are very dissatisfied with the conditions under which they work. As expatiated by Ahamefule (2014), staff's precious time is spent battling with management for better conditions of service through strike action and their neglect of academic activities. Some staff interest in their profession has waned and their commitment is minimal resulting in absenteeism and late attendance to lectures, resulting in non-coverage of course material which lowers the quality of graduates trained.

8.2.4 Divesting University Education for Market Competition and Effective Funding

The introduction of neo-liberal ideology with its market-oriented policies has exposed education, particularly tertiary education, to market competition with government shifting part of the cost to students and their parents (Johnstone 2003:3). University education which is considered a social good providing social services no longer receives the financial protection from the state, but it is made accessible to applicants with the financial ability to pay due to the purported high private benefit for the beneficiaries and their families (ibid.). University education is no longer treated as sacred and previously protected by the state but managed as any other service offered for sale in the market (Mudge 2008; Lynch 2006:3) without recourse to citizens' ability to pay for equal access.

Student leader survey respondents constituting 83.2 percent or responses, indicated that their parents are responsible for all the financial needs of their university education. Though the state has made provision for SLTF for students to access funding and pay later, respondents who patronize the facility constitute only 12.4 percent. The reasons for the low patronage of the state loan facility are: parents catered for all expenses (33.8%); high interest rate (11.2%); difficult application procedure (5.6%); and don't want debt (2.2%). Debrah (2008) has intimated that the quantum of loans the SLTF offers is inadequate to cover the expenses of a student's university education, and again, they are scared off by the high interest rate involved. An important lesson which potentially makes the student loan scheme an unsuitable option for the funding of students is the current student debt portfolio in the United States of America which was US\$1.48 trillion in January 2018 (Student Loan Statistics 2018). This huge student-related debt covers 44.2 million borrowers and is projected to increase to US\$620b more than credit card debt in America and is experiencing an 11.2 percent annual default rate (ibid.) The consequence has been debtors

constituting pressure groups such as Occupy Colleges and Occupy Student Debt Movements, Rebuild the Dream, Education Trust, and Young Invisibles in 2012, to galvanize support from students in America for debt elimination (ibid.). Should higher education be funded fully by the state, debt related social unrest would be avoided. Apparently, the actions of these pressure groups have resulted in the promulgation of "The Student Loan Forgiveness Act of 2012" to offer debt relief for students indebted to the federal and private student loans (ibid.).

Another important aspect of the cost of accessing university education is how students pay fees especially before they register to commence the academic year. Some 51.7 percent of respondents indicated students are expected to pay 70 percent of fees they owe before being permitted to register, while 32.6 percent of respondents stated 50 percent of fees payment up front. The fees payment system indicated by the students is at variance with the claim by a government institution interview respondent's statement that public universities offer flexible fees payment modalities of 50 percent payment per semester. The national students' president who was an interview respondent explained that the mode of fees payment posed a challenge as students who owe fees are not permitted to write end of semester examinations. Again, there are other charges students are levied to pay besides the fees, for instance a medical levy and others, and defaulting students are not permitted to register to continue with their academic work, even if tuition fees are fully paid. Obviously, students who are unable to write their end of year examinations resulting from their inability to pay fees lag behind their cohort year students with resultant effects on their professional career development. The Students Representative Councils (SRC) and University Councils jointly resolve the challenges as they emerge. Invariably the fees payment issue in the universities has been a result of the state subvention cuts since the 1980s. These cuts necessitated a universities' stakeholders meeting in Akosombo in 1997 where the 'Akosombo Accord' was signed with cost sharing arrangements concluded (Manuh et al. 2007:96). The new funding arrangement required that the government absorb 70 percent of public university costs while students' contributions, private donations and public universities management each absorb 10 percent of the cost (ibid).

Obviously, student leaders who were survey respondents embrace (67.5 percent) cost-sharing for university education with the stakeholders of cost-sharing identified by respondents to include:

government, universities, students, alumni and donations from local and international bodies/individuals. Clearly the universities' main preoccupation is searching for additional and alternative funding sources so as not to depend solely on the state with the new funding arrangement resulting from neo-liberal market-oriented policies (Weiler 2000). One government institution interview respondent commented on the funding-gap in the universities and explained that government cannot solely fund the universities, and more so, as the government educational focus is on basic education, from kindergarten to junior high school where the chunk of education expenditure is directed. However, the need for a holistic approach to education which had a total student population of 318,000 in 2017. Currently, the government is in discussion with tertiary education students on cost-sharing and how students could support the payment of expenditure items like utilities and to assist in minimizing the high cost of utilities on campuses such as electricity and water.

Though cost-sharing is acceptable to all stake-holders in university education, overreliance on fee-paying programs would mean depriving qualified applicants from poor family backgrounds in Ghana access to higher education. This stems from the fact that the average annual per capita income was US\$1188 in 2013; less than the US\$1324 needed for the cost of instruction and living expenses in public universities in Ghana in 2010 (Adu-Boahene 2010). Further, income inequality in Ghana is so high that in 2006 the top 20 percent of the population, the richest, held 50 percent of the nation's total income (Ghana Statistical Services 2007). Considering the situation where most university students are sponsored by their parents, few parents in the average income group can finance their wards' university education. Generally, parents are made to work to help ones being sponsored; in this case females are likely to be sacrificed for their male siblings due to cultural dictates.

8.2.5 Ramifications of Marketization and Cost-Sharing for Access to University Education

a. Payment of Academic Facility User Fees (AFUF) and Learning

The educational training of individuals is deemed as an investment with direct expenses and opportunity costs which impact on productivity of the trainee with future benefits in the form of enhanced wages, non-monetary individual and social benefits (Shultz 1961; and Becker 1975). The Student contribution to the cost of their university education is the AFUF, which 84.2 percent of student leader survey respondents explain is a way of pushing the universities' financing requirements on to students, with 44.9 percent of the same respondents not appreciating the relevance of AFUF payment to the universities.

A finance director interview respondent explained the genesis of AFUF payment despite the provision in the 1992 Constitution of the Republic of Ghana which guarantees free tuition at all levels of education for its citizens. It was explained that AFUF payment and fee-paying academic programs were introduced in 1997 when government could no longer fund all line items of the universities' budgets. Currently, the government subvention to the universities covers only workman's compensation (salaries) and the universities must find other money to pay for expenses which government will reimburse later.

It was explained further that the term Academic Facility User Fees (AFUF) was coined to charge tertiary education students a certain amount for the cost of teaching and learning materials used for their training. Though the universities are enjoined to increase the AFUF by 10 percent annually, because government subvention keeps on declining, the universities design modalities to charge students for specific identifiable activities that have earned benefits to the students directly. Currently, students pay for healthcare because once they are at university, the university must take care of them. New students are subjected to a thorough medical examination, which they pay for. They pay for the matriculation course catalogue/book for first year students; ID card; technology fee (because with the advancement of technology, we cannot continue to do things manually); sports; residence; SRC dues; sanitation. So, there are several line items that students must pay, which are meant to meet specific expenditure and the generic name is the AFUF; a finance director interview respondent remarked.

Commenting on cost-sharing of higher education Johnstone (2006) has intimated that government's refusal to fully support universities financially in the name of cost sharing is tantamount to shifting the financial burden to students and their parents which is unacceptable. This act of decline in state funding of universities has resulted in the extensive IGR drive and commercialization of university education institutions which adversely affects the quality of delivery and is a recipe for mediocrity (ibid.). Government efforts to shift higher education costs onto students on the pretext of cost sharing does not reflect any efficient cost-benefit analysis other than political power brokers' desire to utilize tax payers' money for political expediency with the consequential effect of widening and entrenching the existing inequalities and uneven distribution of economic opportunities in society (Johnstone 2006:10).

b. Student Fees and Enrollment Size

Student leader respondents expressed their views on the relevance of AFUF or any type of fee payment should it adversely affect student enrollment. The response indicated that 68.5 percent of respondents opposed any form of fee payment if it would reduce student enrollment, while 20.2 percent supported fee payment even if it adversely affected enrollment. Commenting on fee payment and the likelihood of it causing a drop in admission for the less privileged in society, the national student leader interview respondent expressed concern that the universities' search for IGR through AFUF and other fee payments as a major source of funding is worrying given its tendency for reducing admission for qualified university applicants from poor family backgrounds. Some continuing students also might have to defer their academic programs due to their inability to settle their AFUF. This is a real problem that needs to be addressed at higher levels of government, especially the developing trend of the most attractive academic programs being offered on a 50:50 percent admission basis for regular and fee-paying status respectively. Most of these attractive programs are those whose graduates will easily find well-paid employment after graduation. With an average per capita income of US\$1188 in 2013, students from average income families cannot enroll in these programs which required between US\$2800 to US\$3600 for the total cost of instruction and living expense in 2010 (Adu-Boahene 2010). These programs have become the preserve of the few rich in society thereby entrenching inequalities.

As a way of minimizing student funding challenges, the national student leader interview respondent indicated that another student loan scheme code-named National Students Fund (NSF) has been established to complement the Students Loan Trust Fund (SLTF). The sources of funding for the new fund are to be annual contributions from all students as well as donations from individuals and institutions. The fact that the SLTF is poorly patronized and a new student fund has been established, portrays the students' lack of confidence in the implementation of the SLTF and this requires state intervention to resolve the implementation challenges to motivate students to patronize it. Student challenges beyond finances were enumerated by the national student leader interview respondent which included: inadequate time and poor facilities in the library, general poor academic infrastructure, poor preparation and delivery of some faculty staff, faculty staff who are students (PhD students) and not easily accessible to students, non-practical exposure for students.

c. Access for the Good Academic but Financially-Needy Students

Feedback from student leader respondents explain how bright but financially-needy students who cannot afford cost-sharing should be managed. Clearly, 67.4 percent of respondents recommended full sponsorship packages for the less privileged, while 14.6 percent recommended loans with flexible repayment terms after graduation. A further 5.6 recommended that such students be permitted to pursue their education and made to pay the accumulated fees after graduation within a flexible payment plan. A university management interview respondent explained that his university reserves a quota for prospective applicants from low class high schools in Ghana mostly patronized by the wards of poor families. He intimated that the quota is usually bloated to enable the university to attain the target, but it has never been able to exhaust the quota as admission letters dispatched never get to the beneficiaries, and some of the beneficiaries who receive the admission letters are unable to raise funds to enroll.

Evidently, overreliance on fee-paying programs would mean depriving qualified applicants from poor family backgrounds in Ghana access to higher education and the need for alternative higher education funding policy is therefore crucial (Sam 2016:4), to offer both the rich and the poor equal access and opportunity. To minimize the financial challenges of students from poor family backgrounds and facilitate their academic work, both university management and student

leadership pursue measures to solicit for financial support to help needy students. A director of finance interview respondent explained that his university has offices to solicit financial support from donors to assist needy students. Student leaders also mobilize similar facilities to supplement the efforts of the universities. Some of these organized financial support initiatives through student efforts include YIBIBOA (donate to support); KETEWAA BIA NSUA (no contribution is too small), while some universities have the 'Mastercard Foundation from Canada' operating student financial support services for needy students. Among the sources of the sponsorship facilities, only the Mastercard Foundation has a full package for the beneficiaries which include: fees, monthly stipend, free accommodation, one meal a day preferably; dinner, and a laptop for each beneficiary; however, the facility is available to continuing students only.

In explaining the challenges of fees payment in universities, the national student president interview respondent identified two groups of students, the normal students who enjoy free tuition but pay AFUF, and the fee-paying group who are given admission and pay full tuition and other fees at both the undergraduate and graduate levels. Evidently, the size of the fees is a challenge and differs from one university to the other. Obviously, the critics of the market-oriented university education propose that the justification for marketization of university education should be accompanied by an effective and adequate financial aid package to offset the possible challenges fee payments would pose to students from poor families (Weiler 2000). The observation is that as there is the need to provide access for all prospective students whether from rich or poor families, the universities would require adequate funding to ensure quality and adequate academic infrastructure for quality delivery despite the declining public financial support.

8.2.6 Implications of Funding Decline on Access to Academic Infrastructure

Student leader respondents assessed the current state of academic infrastructure in the universities. Except a spacious state-of-the-art library that 65.2 percent of respondents confirmed is available at the public universities, most respondents could not confirm the existence of academic facilities. Other ratings were: available lecture rooms that meet the learning needs of students was confirmed by 20.2 percent of respondents; 30.3 percent agreed that there is easy access to needed resources at the library; 37.1 percent agreed there is easy access to internet

facilities at the library; while 30.3 percent agreed that there is an effective internet facility to support student learning needs. A national student president interview respondent bemoaned the bad state of academic infrastructure in the universities which adversely affects the quality of student output and raised the issue of value for fees paid by students. To make higher education in SSA function effectively with qualitative output delivery capable of being competitive globally requires the availability of state-of-the-art equipment and facilities capable of accessing global knowledge (Bozzoli 2015). Acquisition of such quality equipment and facilities requires adequate public funding, however, SSA governments are not investing adequately in higher education institutions but are rather implementing very harsh funding regimes and making the institutions unsustainable (ibid.). The funding challenges are worsened with the government's desire to make the universities increase student enrollment due to the growing youth population but without a corresponding increase in funding, and most students enrolled are from poor family backgrounds (ibid.). The need to assess and discuss funding challenges and opportunities in public universities is imperative.

8.3 What are the Funding Challenges and Opportunities in Public Universities in Ghana?

The difficulties universities encounter in accessing funding for quality delivery of their mandate given the declining government subvention payment is the focus of this section. Again, the existing prospects that are being utilized or could be exploited to improve upon funding are also explained. This section mostly focuses on the accounting professional survey respondents whose primary mandate is to ensure that there are available resources to finance and manage the universities. Data from survey questionnaires were used to unearth the challenges and opportunities and were supported with interview data for better understanding and clarification of issues raised. Again, the relevant principles of resource dependence and human capital theories are employed in this discussion as well as the relevant information from the literature reviewed.

8.3.1 Current Funding Challenges

The universities while their mandate delivery must access scarce and valued resources in their environments which are essential for their survival but over which they have limited control (Johnson 1995). These resources are controlled by other stakeholders and the universities must engage with these valued stakeholders to access the valued resources (Pfeffer and Salancik

1978). The focus here is the difficulties the universities encounter as they engage with the relevant stakeholders while accessing the vital resources as espoused by Pfeffer and Salancik (1978) in the resource dependence theory.

a. State Policy Directives and Funding Difficulties in the Universities

The neo-liberal ideology of promoting marketization through competition in the delivery of public services enjoins the state to disengage itself from the business of state ownership but play a facilitating role through policy directives to regulate public institutions towards the state program agenda (Mudge 2008:704-705). These policy directives create several encumbrances for the universities as their initiatives to mobilize and utilize resources are manipulated and controlled by the state. Clearly, 34 percent of respondents indicated how policies of the state as a major resource controller interfere in the universities' resource mobilization efforts, while 15.6 percent of respondents stated the policies direct how resources should be managed to enhance efficiency. The responses show that state regulatory policies despite the restrictions play an active role in directing efficient use of scarce resources in the universities. Issues of interference were identified as:

- A ceiling on how much to charge per year for AFUF
- Universities cannot mobilize IGR beyond its legal mandate for existence
- Introduction of recapping with 34 percent of universities' IGR to be paid into government accounts (yet to be implemented and being discussed for the way forward).

Finance director interview respondents explained further that the legislative wing of government is discussing how to regulate the sale of university application forms to avoid applicants buying more than one form in a year which would adversely affect IGR mobilization if implemented. A labor union interview respondent stated that IGR is the mainstay of funding in the universities as government subvention payment is not adequate to cover workman's compensation in the universities. The university institutions have to stretch themselves beyond reasonable bounds to be able to generate funds to invest in infrastructure, equipment and to some extent even paying some categories of workers. A major and worrying interference from the government is its demand for 34 percent of the public universities' IGR to be paid into government accounts; this was covered in the 2018 budget statement to Parliament which has approved it. A finance
director interview respondent explained that despite government's inability to provide for the financial needs of the universities, tuition fees payment by citizens is not permitted by the 1992 Constitution of Ghana (Ghana Constitution, 1992, Article 25: 1C; 38 [3]); and what is charged as AFUF is also controlled by Parliament and the student leadership.

A government institution interview respondent explained that the annual financial reports from the universities always expose the universities as spending more than what they projected to mobilize as IGR and the government contemplates that the annual projected IGR is underestimated. Again, most universities keep the IGR in commercial banks who make money from it by buying government bonds; but it is illegal to use government funds to make money from the government. At the time these funds are being used illegally by the commercial banks the government needs funds to execute the business of the state. The government institution interview respondent further stated that government is suspicious of public universities investing IGR in government treasury bills, buying excessive equipment and machines including vehicles which under normal sound public financial management should not be purchased. The respondent explained the reason why the universities under-declare their projected IGR is the block grant paid to the universities where institutions generating more resources are given a smaller government grant.

An important principle of the resource dependence theory is that the magnitude and criticality of the resource given to the recipient allows the source of the resource to wield power over the resource recipient to enforce their demands and interests (Pfeffer and Salancik 1978). Thus, the relevance of subvention to the universities in paying staff workman's compensation and claim of ownership of the universities by the state are such that government always has the power to push its agenda through and the universities have no option but to conform. But the consequences on the quality of education is not something that will necessarily be felt now, it will be felt in decades to come. However, despite the power of the resource provider or government to attain its demands and interests, the universities as resource recipients make efforts to change the environment which hosts the resources and power to suit its interests as the theory projects (Pfeffer and Salancik 1978). This the universities implement successfully through negotiations and by engaging their labor unions who employ agitation and strike action for their demands

where the negotiations fail. This is demonstrated by the labor union interview respondents who registered their disapproval of the government decision to take 34 percent of the universities' IGR:

"We have always opposed that, it is not a new thing, it has been the thinking of the past government - we resisted it, they couldn't implement it and this government has come to continue, we will resist it with all the forces that we have. We are not going to allow that to happen, if it means closing down the universities on this single issue, we will do that because it's not done anywhere".

The literature reveals a massive increase in tertiary education enrollment in the SSA which is not supported by appropriate resources: human, financial and material, with major consequences for the quality of the system (Teferra 2014:13). The government interferences and restrictions on the universities about what to charge and how to charge without adequate financial support compromises the autonomy of the universities and limits their capacity to mobilize adequate resources for their planned programs which has an adverse effect on their productivity and quality of delivery. This is evident in the decline in African share of global knowledge by 11 percent since 1990, and Africa currently contributes just 1.5 percent of global research publications though it constitutes 12 percent of the world's population (Oyewole 2006).

b. Untimely Release of Subvention

Feedback from respondents about the schedule of subvention payments and whether releases were made timeously to implement programs/projects, and what is done should the subvention release be delayed are explained. A majority, 81.3 percent of respondents reported delays in subvention payments, and IGR is often utilized to commence program implementation, as indicated by 68.7 percent of respondents. Some 15.6 percent of respondents indicated the use of credit facilities such as bank loans and overdrafts to kick-start programs when subvention payments were delayed, with 2 percent of respondent indicating the use of hire-purchase. In extreme cases, 9.4 percent of respondents indicated that programs are suspended until the subvention is released. Obviously, the use of credit facilities has built-in cost components as the creditors charge interest which compounds the funding challenges of the universities, and which makes the use of such a facility undesirable. An interview respondent confirmed the untimely

release of subventions and explained that such delays have adverse consequences on the mandate delivery of the universities.

In his explanation of the relevance of timeous release of program/project funds Sagenmuller (2016) has intimated that universities plan for several projects for quality delivery and improvement in their core mandate. He explained that a good project involves a set of activities to be undertaken in a given time, with a combination of human, physical and financial resources, with defined costs to produce a change in an institution, by completing certain established goals. Non-release of the budget line is synonymous with pushing for the failure of the project with dire consequences in higher education institutions where the scheme of academic activities is time-bound. The universities therefore adopt managerial and administrative models in a competitive environment aimed at ensuring increasing efficiency and effectiveness acceptable to its stakeholders (Bryde and Leighton 2009); and make efforts to eliminate or minimize project failure due to delayed release of budget lines, with IGR being the stop-gap.

c. Failure to Release Program/Project Funds

Respondents indicated how the universities manage their annual programs in order to not be completely controlled by the resource providers, for non-release of funds tied to specific projects, funds cancelled, or phased out. The feedback given indicated: project re-prioritized among others for consideration (31.3%); IGR used to complete the project (25%); project suspended till release of funds (25%); project abandoned (9.4%); and loans accessed to complete the project (6.3%). Evidently, IGR plays a major role to safeguard the completion of such projects. The worst-case scenario where projects were abandoned or suspended until funds were made available would imply a waste of the initial funds invested in the project which ought not to be the case in the universities who are in dire need of academic infrastructure to expand access as well as to ensure quality delivery of their mandate.

8.3.2 Opportunities to Improve Funding

The human capital ideology espouses that individuals acquire technical skills and knowledge through investment in education which yields higher earnings to the individual and societal benefits in the form of spillovers to others in society (Schiller 2008). It is further opined that

improved productivity of individuals and groups through investment in education constitutes the justification for public expenditure on education worldwide (Psacharopoulos and Woodhall 1997). Universities as the bodies responsible for inculcating the technical skills and knowledge at higher levels which constitute their power could explore the opportunity to exchange their power for the vital financial resources needed for their survival if the state, which is the final beneficiary of the technical skills and knowledge in the form of increased productivity, failed to provide the needed resources.

a. Possibility of Self-Financing

The role of universities in training the vital human resources for improved productivity at the micro and macro levels justifies public investment in the universities worldwide through subvention payments (Psacharopoulos and Woodhall 1997). The universities must explore their power of awarding degrees in exchange for beneficiary's financial resources to survive. Respondents' feedback to the question of universities abandoning state subvention and using their power to explore adequate alternative funds for their mandate delivery shows 56.2 percent opting for payment of subvention to the universities. Though, 28.1 percent of respondents confirmed that the universities could be self-financing without government subvention but the cost implications and denial of access to the underprivileged in society cannot be underestimated. The government institution interview respondent explained further that the universities could design short courses for weekends and sandwich programs for workers who don't have the luxury to leave their formal employment for three to four years of residential university education. These programs would not only help the workers to acquire academic rewards but also make available scarce resources to the universities to complement state subvention and manage their funding gap.

Most accountant respondents, 75 percent, proscribed retention of subvention payment to the universities as the subvention withdrawal would mean full-cost recovery from beneficiaries of university education which is currently not feasible due to the low-income levels of most of the citizenry. Student leader respondents constituting 82 percent supported payment of state subvention to the universities. Payment of subvention from the students' stance, will reduce the unfair privileges the rich in society enjoy in respect of university access, at the expense of the

academically bright but poor in society. Again, education is a necessity and the state should invest in it instead of withdrawing its financial support and thus overburdening the universities with the need to seek alternative funding, which they are likely to do by shifting the cost to the students. Smith (1976) has postulated that education impacts positive externalities to society as the more instructed a nation is, the less likely it will be to maintain unhealthy traditions; a well-educated and intelligent citizenry are often decent and cooperative than the ignorant ones. Obviously, improved human capital enhances labor productivity and facilitates technological innovation, resulting in good returns to capital and ensures sustainable growth which facilitates poverty reduction in a country (Almendarez 2010). The positive externalities higher education has on society should necessitate strong government financial support for higher education institutions (Smith 1976).

A finance director interview respondent explained that his university has had a huge funding-gap for the past five years, even with subvention payment and that its withdrawal will worsen the quality of university education delivery which will further adversely affect the socio-economic development of the nation. The high funding-gap reported in one university correlates with the ministry of finance interview respondent's remarks that the universities have differential resource access and acquisition. The older universities have more access to resources and therefore government considers the resource base of the universities when allocating subvention; the new universities are allocated more academic infrastructure than the older ones, but the additional resources do not meet the resource requirements of the new universities.

Awortwi³⁰ (2008: 6) has established a strong positive correlation between investment in higher education and socio-economic development and that a country's global competitiveness, technological advancement, industrial growth and economic development is overwhelmingly influenced by the level of its higher educational attainment. The same study showed a positive correlation between higher education and entrepreneurship. Individuals with higher education levels were more likely to engage in entrepreneurial activity, and more educated entrepreneurs created larger numbers of jobs than less-educated entrepreneurs. De Villiers (2012) has opined that the consequences of the withdrawal of the state's financial support would mean an upwards

³⁰ A Ghanaian and a senior lecturer in Development Management at the Institute of Social Studies (ISS), The Hague, Netherlands.

adjustment of student fees with the consequences of depriving prospective students from poor family backgrounds access due to the unaffordable cost of tertiary education.

Obviously, higher education high costs coupled with poverty levels slow down efforts geared at social transformation and poverty alleviation and De Villiers has intimated that "while universities were expected to become more inclusive in terms of attracting more diverse student profile, these inevitable cost increases have become a prohibitive factor for poor students to *enter* the system" (ibid:57). The literature is replete with incidents of fierce resistance by students against the introduction of tuition fees in developing countries, in some instances, resulting in violent student demonstrations and destruction of lives and properties such as in in Nigeria between 1976 and 1986 (Eboh and Obasi 2002). In the Republic of South Africa, a series of university student demonstrations nationwide code-named "Fees Must Fall" targeted the government to drop tuition fees increases in the 2015 and 2017 academic years, and finally, to implement free tuition resulted in violent clashes between students and the police (Hauser September 2016). The South African Higher Education Minister, Nzimande (cited in Ggirana 2016) reported damage to university property to the tune of R300.3 as a result of student demonstrations against tuition-fees payment. This implies that the universities must find alternative funding sources and not depend solely on tuition fees to mitigate against the declining subvention payment.

b. Exploring Varied Sources to Improve Upon IGR

Ways of increasing IGR funds to improve funding in the universities, the current sources of funding and their performance were identified as well as how to strengthen and improve upon the sources are further discussed. Accountant survey respondents identified the current sources and their performance as follows: government subvention (28.1%); AFUF (21.9%); fee-paying programs (15.6%); research projects (12.5%); donor support (9.4%); other IGR sources (12.5%). From the perspective of a finance director interview respondent, every source of revenue of the universities except subvention from the government is IGR. That is, all revenue the university receives that does not come from the government is IGR and these include AFUF, residential user fees, research grants, interest from investments, proceeds from sale of goods, and donations. This implies that IGR in the universities constitute 71.9 percent of the current funding base.

Evidently, the Akosombo accord signed in 1987 where it was agreed that government should provide 70 percent of the funding needs of the universities could not be sustained with the universities mobilizing more than 70 percent of their current funding; a shift in assigned roles. A university interview respondent explained that considering the current funding gap in his university (2011: 54.7 percent; 2012: 66.6 percent; 2014: 57.9 percent; and 2016: 60.6 percent), and the government demanding 34 percent of the IGR is a recipe for the total collapse of the universities. Emphasizing the relevance of donor interventions, a respondent indicated that his university has had some projects directly financed by the World Bank and without such support the University could not have constructed such projects.

The literature indicates that governments in SSA are disinterested in the survival of universities having set their priorities on developing basic education as dictated by the World Bank which intimates that higher education should not be a priority in SSA as it is not "*productive of profit*" (Awortwi 2008:5-6; Mamdani 2009:19). Governments' disinterest in the survival of universities is re-echoed by the reaction of the President of Uganda, Museveni, to university staff demands for living wages: "would offer the University a stock of cattle and grazing land, presumably to get the staff and students in the Agriculture and related Science Faculty to produce dairy and agricultural products as cheap food to subsidize meager staff salaries" (Mamdani 2009:20).

c. Accessing and Strengthening IGR Sources for Improved Funding

Respondents' feedback about the IGR sources the universities should explore further to improve upon their funding are indicated and discussed below. The identified sources that needed to be accessed and strengthened are: consultancy services/research (25% of respondents); prudent use of funds/management (15.6% of respondents); local/foreign fee-paying academic programs (15.6% of respondents); commercial ventures/PPP (15.6% of respondents); housing for staff and students (12.5% of respondents); commercial farming (9.4% of respondents); and distance education (6.3% of respondents). Identified commercial ventures which needed public-private-partnership (PPP) involvement are: printing houses, fuel stations (garage operations), and water production.

A finance director interview respondent intimated that one untapped area is commercial fundraising but public universities in Ghana are not oriented to pursuing commercial fundraising and most of them do not have offices for fundraising. Apparently, "going to raise funds is a whole work of itself which requires a set of skills and the universities in Ghana do not have these skills and expertise" and this should be looked at, the director remarked. Again, endowment funds in public universities in Ghana is non-existent and this should be taken seriously. Elsewhere in Europe and America, endowment funding is a major source of IGR for universities: "If you go to Harvard alone, I am told the endowment fund run into billions of dollars, close to thirty-one billion dollars and the interest they earn on the endowment fund alone is enough, a finance director respondent remarked. The literature reviewed indicated that the unimpressive cash flow into public universities which is worsened by the inflationary spiral prompts the universities to accommodate academic fee-paying programs, private limited companies, and other commercial activities to improve upon their IGR to supplement the ever-declining public subvention (Teferra 2013).

The 1987 Visitation Committee to the Makerere University in Uganda had recommended commercial farming, a bookshop, printing works, and guest house ventures as income generating activities for the University to improve upon its IGR as a cost-sharing measure (Mamdani 2009:12). Obviously tertiary education institutions in the United States of America explore and manage billions of endowment funds which are invested for interest and the returns improves their fiscal health (Baum, Hill, and Schartz 2018). It is projected that the wealthy institutions that enroll 10 percent of doctoral students have an endowment fund of US\$1.3m per student per year which is invested in financial assets for substantial interest that enhances management of recurrent expenditure in these institutions (ibid. 2).

8.4 What Funding Strategies have been Employed to Generate Revenue in Public Universities in Ghana?

Managing higher education requires large injections of investment and in SSA running of public universities is both capital and labor intensive. However, financial austerity by the state leave managers of public universities no option but to adopt innovative and proactive plans and strategies to mobilize IGR in order to be in active business. The capacity to generate additional resources to a large extent determines the success of public universities (Ernete 2007), and this demands new managerial practices with the infusion of the private sector mode of delivery to achieve the desired results and this is the focus of discussion in this section. A finance director in-depth interview respondent explained that the NCTE which coordinates tertiary education institutions in Ghana has prescribed norms to direct and regulate the use of resources in public universities. Public universities operate with financial policies which are geared towards optimum cost while increasing revenue and the strategies adopted, from the perspectives of academic heads, accounting professionals, and student leaders, supported with in-depth interview responses are discussed hereunder.

8.4.1 Procedures for Accessing the Critical Resource (Funding) Requirement to Improve Resource Autonomy

Institutions/organizations interact with each other in their environment to compete for scarce resources, with one institution making efforts to exercise its power over the other institutions for resources needed for the its survival (Sheppard 1995). As postulated by Pfeffer and Salancik (cited in Davis and Cobb 2010), in Resource Dependence Theory, each institution has power in terms of resources it controls, but at the same time, would require other resources it needs for survival which are controlled by other institutions in its environment. This situation necessitates exchanges between and among the institutions which results in dependencies on each other in the environment. Each institution maximizes the use of its power to reduce its dependency in their efforts to explore and access the vital resources they need for survival (Nienhuser 2008: 13). Institutions would therefore explore ventures in which they have a comparative advantage over the others in the environment to minimize their dependency. An organization therefore undertakes an environmental scan for information about its technical or task environment which involves the source of inputs, markets for output, competitors and other resources to take informed decision (Pfeffer and Salancik 1978: 262-268).

a. Efforts at Improving Existing IGR Sources

The universities' quest to mobilize IGR to fund their programs necessitates embracing all available options. Accountant respondents identified plans to be adopted as a first line of action to boost the universities' projected revenue to finance programs showed the following response:

increase in students' fees (59.4%); solicit donor funds (21.9%): negotiate for increase in annual grant payment (9.4%); increase in service charges (6.2%); bank loans (3.1%). The focus on increase in student fees is an obvious choice considering the perception that university degree holders have better job prospects to enjoy middle-class lives and parents are ready to fund their wards' university education to enjoy the associated benefits. A further strategy to increase service charges also adds up to student costs which worsens the challenges for students from poor families. A university management in-depth interview respondent stated that shifting costs to the students is a major strategy to fund programs in the universities. The challenge with resorting to fee increases is the tendency to deprive prospective students from poor family backgrounds access, which supports the observation of Bronchi (2003) that promoting education in society often creates income inequalities, especially when the set goals are politically motivated. The universities are not interested in bank loans due to interest charges which burdens their debt and further puts pressure on the IGR to service the interest.

b. Expansion of the IGR Base

The current declining state subvention to the universities signals low levels of commitment and makes public funding of higher education unsustainable, which calls for effective funding options if public universities are to be relevant to society and internationally competitive (Sam 2016:4). The effective option of shifting costs to students has its limitations due to state policy directives and student protest riots (Kasozi 2006). According to Mamdani (2009:17), students arranged for an emergency General Assembly on 1st December 1990 in Makerere to 'pass a vote of no confidence' in the Vice Chancellor who was a member of the Visitation Committee of 1987 that recommended cost-sharing in the Makerere University. This led to student protests and finally the closure of the University on 10th December 1990. Such riotous behaviour disturbs the congenial environment required for sound academic work, and in most cases, distorting the academic calendar with further adverse effects on costing.

Obviously, the universities have to examine their environment to explore additional resources to minimize overreliance on student fees. Accountant respondents' feedback about the expansion of the IGR base indicates that 50 percent of respondents confirmed the expansion. Unfortunately, the other 50 percent of respondents either indicated no expansion (18.8%), or no knowledge of

expansion (31.2%). The respondents are the financial controllers of the funds in the school and draw the annual budgets and cannot be ignorant of any IGR sources or expansion. Obviously, the departments depend on the respondents for any financial information and advice and to express no knowledge means the universities should develop their capacity to enable them to contribute meaningfully to the universities' funding agendas. Responding to how to expand the IGR base of the universities, academic heads' responses constituting 54.7 percent did not subscribe to the universities do not have the capacity to invest and maximize returns from non-academic ventures, although 37.3 percent of respondents confirmed the need to explore all avenues, including non-academic commercial ventures to improve upon IGR. However, both accounting professionals and student leaders' respondents accepted non-academic commercial activities in addition to the traditional sources as acceptable. While accounting professionals' responses constituting 78.1 percent approved of non-academic commercial ventures, student leader respondents that confirmed non-academic ventures comprised 53 percent.

The accounting professionals listed some of the academic and non-academic IGR ventures introduced since 2010 to improve IGR mobilization which include: distance education programs, fee-paying and parallel academic programs, commercial meat processing, vehicle repairs/servicing, sachet water production/soap making and many others. Obviously, the new IGR sources listed signify the commitment of the universities to access funds without overly depending on the state subvention and student fees. However, the lists do not indicate how effective and beneficial the new sources are in terms of the quantum of funds they add to the universities' resources. Most of the IGR sources listed by the accounting professionals are at variance with the recommendations by a university management interview respondent that the best sustainable income generation activities for the universities would be to charge for teaching, learning and research. These two distinct recommendations are from two different professionals in the universities namely, academic and accounting professionals.

Obviously, both recommendations could work well in the university setting which is a community on its own and spends huge sums of scarce financial resources to procure the listed items in the course of discharging its core mandate. For instance, fuel for the numerous

university vehicles, water for university meetings, printing works for annual dairies, brochures and modules for distance education programs as well as printing of university-based academic journals, examinations answer booklets and others. Obiously, universities' response to their financial challenge is to seek legitimate initiatives into both academic and non-academic ventures that would complement state funding through revenue diversification to minimize the effect of the shortfalls of state funding (Wangeage-Ouma 2008). It is envisaged that internally generated revenue would cushion the universities and spread financial risk should state funding not be released or drastically reduced (ibid).

8.4.2 Efficient Management of IGR Resources

Resource Dependence Theory elaborates on organizational efficiency where an organization's performance assessment is undertaken internally to evaluate how resources are used to achieve optimum output and how the critical resource providers such as workers' unions influence the efficient use of resources (Pfeffer and Salancik 1978). Universities need political and social acceptance, attracting respect and confidence of the constituencies they service as well as commanding public trust which cannot be legislated or forced upon the public to attract resources for their operations (Leveille 2006). Obviously, eroded public trust will adversely affect public resources flow, for instance, donors will reluctantly release funds, policy makers will be adversarial and uncooperative with state interference which will negate institutional autonomy (ibid: 14). The use of scarce financial resources to achieve optimum satisfaction for stakeholders in the universities is the focus of this section.

a. Transparent Use of Funds

All survey respondents (academic heads, accounting professionals and student leaders) expressed their views on how open and clear the universities' expenditures are made. While 60 percent of academic heads' respondents expressed satisfaction with the transparent use of resources, 68. 7 percent of accounting professionals confirmed the transparent use of IGR, with 9 percent of student leaders' respondents who accepted there is transparency with IGR use in the universities. The accounting professionals have oversight responsibility for the transparent and efficient use of funds in the universities and for 31.3 percent to express doubt over transparent use of IGR should be a worrying subject management should pay attention to. Another group of survey respondents with inputs on transparency worth considering is that of the student leaders. As high

as 91 percent indicated either no knowledge of transparency (53.9%), or no transparency (37.1%), with only 9 percent who could confirm that there is transparent use of IGR. The reasons cited by the survey respondents for no transparency were:

- Students are not briefed on how IGR is used
- Increases in student fees despite government payment of subvention
- Universities do not make their bank statements available to the public
- Universities don't involve student leaders in their financing
- Universities do not account for spending
- Bad state of academic infrastructure despite fees paid
- High corruption at the universities
- Universities don't account for SRC dues accurately
- Cannot explain very well at Parliament how funds are used
- Do not see the value of fees paid because of poor state of facilities.

Apparently, some of the reasons cited would require better interaction and communication from management to ease student doubts on transparent use of IGR. What makes student understanding of transparent use of IGR a vital issue for management to improve upon IGR mobilization, is the important role students play in determining what should be paid as fees in the universities. Undoubtedly, students oppose and are not willing to make sacrifices by tolerating increases in fees due to their mistrust in the transparent use of funds collected.

According to Basu (2004) inefficient use of IGR is likely to engender apathy from the donors or payers of the IGR, including those involved in its generation. However, concern is raised about the attitude of some chief executives of public universities who do not heed technical briefings on funds use and go ahead and spend contrary to what the financial policy would permit. Such wanton disregard for laid down policies becomes fertile grounds for corruption which poses a threat to academic quality. For instance, higher education institutions in India are reported to have recorded 130,000 ghost lecturers which came to light with the issuing of unique identity numbers for Indian residents (University World News January 2018). Again, the Economic and Financial Crimes Commission (EFCC) has reported corrupt activities in Nigerian higher education institutions which include contract inflation, employment of unqualified staff at the

expense of candidates of high merit, admission of unqualified applicants, while a chief executive of a public university is accused of forgery and sexual assault (Fatude 2017). Public universities in Ghana therefore cannot thrive without transparency, accountability, and efficiency in the delivery of their core mandate.

b. Maintaining Minimal Budget Overrun

The rationale for government intervention policies in university institutions in Africa is to ensure efficiency and equity in resource use. As the higher educational institutions often interpret such interventions as an infringement of their autonomy, it is worthwhile noting that the institutions regulate themselves in an acceptable way to minimize state interferences so self-assessment is therefore key to the universities enjoying autonomy. Respondents' feedback on how the universities manage their annual expenditures to minimize spending beyond their projected revenue indicated the following responses: monthly expenditure returns are sent to the departments and centers to guide spending to minimize expenditure overrun (34.2%); spending officers should stop further spending on any item that exhausts its annual budgetary provision (22%); spending officers should stop further spending approval from management to spend on critical projects that exhausts its annual budgetary provision (15.7%); seeking approval from management to spend on critical projects that exhausts its annual budgetary provision (15.6%); and utilizing any available funds on any project as deemed necessary (12.4%). A labor union interview respondent stated that his university records between 3 to 5 percent budget deficit annually and intimated the difficulty in dealing with the academic staff in efficient use of funds.

The academic staff are not interested in prudent use of resources and not ready for any advice on the efficient use of funds as one interview respondent remarked. A university management respondent confirmed this assertion when he stated that expenditures on academic activities are made without too much emphasis on value for money as focusing on cost-cutting for efficiency affects quality of output. Arguably, delivery of academic output without recourse to minimizing waste is tantamount to depriving the institutions of the needed resources for quality delivery. Obviously, institutional failure to regulate their finances efficiently will attract an external body's regulations which may not be acceptable to the institutions. Nganga (Nov 2017) has reported in the University World News of 2016 audit report in Kenya that universities operate with more than US\$100m budget deficit and use more than 85 percent of their funds on recurrent expenditure, mostly on salaries. Institutional autonomy in Kenyan universities is on the verge of collapse as government intervenes and issue orders which are likely to close some higher education institutions; involve a dramatic review of conditions of service for lower-level and non-teaching staff, with only academic staff of senior lecturer and beyond status to have permanent appointment status (ibid). The pragmatic measures itemized by survey respondents are vital if duly implemented and defaulters are sanctioned appropriately to ensure sensibility? in the efficient use of funds. It will require frequent monitoring to ensure compliance and minimize avoidable state policy interference.

c. Managing Unpaid Bills in a New Budget Design

Managing unpaid bills in a new budget design is essential in the efficient use of limited resources in the universities as it affects disposable funds for use in the ensuing year for program and project implementation. An institution that is indebted to its suppliers and unable to make payment in the year in question reduces its available funds in the coming year by the quantum of debt owed. Where provision is not made in the new budget design to pay the bills, planned programs and projects in the new budget design will be adversely affected. For instance, if University A projects to receive total revenue of US\$10m but owes US\$1m, the projected revenue for the new year will be: Projected Funds \rightarrow (US\$10m-US\$1m) \rightarrow US\$9m.

Where provision is not made in the new budget for the US\$1m debt payment (arrears payment) but an institution designs new programs and projects to cover the US\$10m, the productivity target will not be attained as the debtors will surely demand payment. The reverse applies to creditors which should be duly captured in the budget to avoid unplanned expenses. Against the backdrop of the hypothetical presentation, respondents indicated the following responses: unpaid bills not considered in a new budget, but payments are made when funds are available (50%) and unpaid bills considered in the new budget design for payment (43.8%). The responses indicate that 50 percent of the universities are most likely to experience unstable fiscal policies which may account for why the universities record budget deficits.

The literature discusses the poor financial base of higher education institutions in Africa, a situation aggravated by ineffective and inefficient use of the little resources available for these

higher education institutions in Africa, and to which insufficient attention is being given to resolve the problem. The consequences have given rise to public higher education institutions having to transfer unused budgeted funds from the state, and IGR to national treasury at the end of every financial year (Yigezu 2013). An instance was given where a public university utilized only 10 percent of the US\$1m research and development fund allocated by the state in the 2008/2009 academic year and must return the unused funds to the national treasury (ibid.). Reasons for not exhausting the budget line is explained as lack of financial management skills and institutional capacity, poor planning, unnecessary bureaucracies and weakened institutional autonomy (ibid.). Apparently, the World Bank has projected a colossal amount of US\$45b needed to improve the institutional capacity of public universities worldwide from 2006 to 2015 and developing countries in SSA requires US\$20b of the projected amount to facilitate their smooth running (World Bank 2010).

8.4.3 Interplay of Power and Exchange for the Vital IGR

Pfeffer and Salancik (1978:2) have indicated that an organization's effectiveness at accessing and maintaining the vital resources required for its operations is key to its survival. It is intimated that an organization's environment is replete with the scarce and valued resources needed for its survival, and the organization engages in exchanges with its environment for uninterrupted flow of the vital resources (ibid). This results in the offering of acceptable goods and services by the organization to its dependents in exchange for its resources for mutual benefit (Johnson 1995:2). Thus, the university as an academic institution wields the power of awarding degrees and certificates people require to enter into the job market, while the communities in the university's environment have the financial resources the university requires to be functional. The need for power and exchange emerge between the university and its communities (environment) which necessitates dependencies for mutual benefit (ibid.). Fortunately, the human capital development advocates have espoused that individuals who benefit from improved learning from the universities have high prospects of good employment with attractive incentive packages and their parents are ready to pay for the cost of their education as a form of future investment (Asuquo and Abgoola 2014). This general belief makes the higher education terrain a good form of investment which the universities take advantage of to mobilize IGR to minimize their fundinggap resulting from declining public subvention.

a. Designing and Mounting Academic Programs for IGR

Universities consistently develop innovative approaches to resourcing their institutions including the introduction of tuition and academic user fees. Universities which are profit driven often act in accordance with the prevailing market situation and mostly motivate students who are their clients to patronize their programs, as well as making efforts to satisfy the employer (Eastman 2004). Efforts are therefore made to differentiate and diversify their products and services to meet the needs of their various clientele (Huisman 1995). The best forms of services to offer optimum returns are the sale of academic products which is the main business of the universities. Academic heads who participated in the study confirmed that 53.3 percent of the universities have designed and mounted market-oriented academic programs to attract student clients with the resources to pay and pursue the educational products for the needed certificates on completion. Thus, as the universities need the student clients' financial resources which is the power of the students, the students are also prepared to pay for the educational products delivered by the universities. This project the issue of power and dependence with each group exchanging what it possesses for what it needs for survival (Pfeffer and Salancik 1978).

A university management interview respondent intimated that the only sustainable IGR ventures would be to charge for their core mandate of teaching, learning and research. The universities have become very proactive in this regard and continue to design and mount academic programs in distance education, summer programs, short courses for workers and their management and charge fees to mobilize IGR for improved funding and quality delivery of its mandate. A university management interview respondent further explains that some of the fee-paying programs have become so attractive that some programs are run on a 50-50 basis, that is 50 percent of regular admissions and 50 percent based on fee-paying. For instance, Awortwi (2008) has indicated a similar admission system where 70 percent of the student population in Makerere University in Uganda are enrolled in fee-paying academic programs the major clients were the foreign students, however, public universities have lost about 90 percent of the international students to the private universities, and the reasons are simple. International fee-paying students are subjected to the same examinations since the same certificate is issued after graduation and

therefore the same educational processes are also pursued. Because public university rules on academic quality are very strict, and students who fail three times are dismissed, most of the foreign students have enrolled in the private universities. Some international students excluded for non-performance from public universities have simply relocated to the private universities and they obtained first class passes. So, what has changed so drastically, that a student who was failing, moves to another place and he/she gets a first-class grade? a university management interview respondent asked.

There were 15185 international students in both public and private universities in Ghana in the 2012/2013 academic year (NAB 2015). Public tertiary education institutions had 21.1 percent of the foreign students, with a total student population of 228,347, while private universities with a total student population of 65 890 accounted for 11 978 of foreign student enrollment which constituted 78.9 percent of the student enrollment. A report from Singapore reveals that 47.4 percent of graduates from private universities have permanent employment compared to 78.4 percent of graduates from public universities for the same period (The Strait Times 2018). The literature reviewed indicates that an important source of revenue for universities has been international student fees as countries make efforts to globalize their educational institutions and appeal to foreign students. Apparently, globalization is motivated by economic interests and has allowed for a reduction in state funding in higher education and shifted costs to the market and consumers (Marginson and Rhoades 2002). Unfortunately, African universities have not been able to expand their higher educational infrastructure to take advantage of globalization (Aryeetey 2016 cited in University World News; May 2016). However, globalization has rather exposed African universities to associated problems including competition for students and faculty, as countries compete for resources (ibid.). The university education institutions must therefore develop strategies that would not allow the globalization of education to leave them behind (ibid).

In the light of this, universities have made every effort to diversify their sources of revenue, to expand facilities and increase enrollment. The effort has culminated in exploring the opportunities available in globalization to attract foreign nationals into public universities as international fee-paying students. This has resulted in a public university in Ghana engaging five

companies in Nigeria to recruit Nigerian qualified applicants for university admission in Ghana (Aryeetey 2016, cited in University World News May 2016). However, the efforts at attracting international students into public universities in Ghana have not been as successful to the extent that universities in advanced economies have (ibid.). There were about 7 500 Nigerian students pursuing tertiary education in Ghana which earned the education institutions N16b (US\$44.3m at exchange rate of US\$1 to N361.214) in tuition fees in the 2012/2013 academic year (Adamolekum 2013). This feat in international tuition fees in tertiary education institutions in Ghana cannot be compared with US\$31b and US\$23b accrued to the UK and Australian economies respectively in 2018 (O'Malley 2018:1 and Maslen 2018:1).

b. Commercial Research Agenda and Consultancies

Explaining the composition of an organization from the perspective of Resource Dependence Theory, Smart (1999) has indicated it consists of heterogeneous groups who are not organized as a unitary hierarchy but are a loosely linked coalition of shifting interest groups. Each group or individuals in the organization is aligned to provide rewards from their resource providers, and in return for these incentives they contribute to the mission of the organization (Pfeffer and Salancik 1978). The universities, after scanning their environments, have identified the academic staff as an interest group who could access IGR from research/consultancy services and other academic programs for mutual benefits.

Efforts to access funds from research/consultancy services would require goals and objectives setting and the resources needed to achieve the goals to be competitive as there are other competitors who are also accessing the same sources (Odita and Bello 2015). The first step is to identify how the universities treat consultancy services as well as staff engaged in the consultancies. Accounting professionals survey responses constituting 40 percent indicate that full-time staff are not encouraged to pursue any other work. However, 28.8 percent of respondents stated that staff can engage in consultancy work and pay a percentage of their earnings to the university while 21.9 percent of respondents explained that the universities do not have records of full-time staff engaged in consultancy work. The level of accounting professional respondents' understanding of the financial terrain as managers of the finances in the universities poses a challenge where no effort is made by some of them to know what is happening in their

environment to advise the university appropriately. The tendency is for the universities to lose vital resources and staff usage of the university facilities to amass wealth is prevalent. Respondents' feedback on the universities' regulations concerning how much of extra income earned from consultancy services should be paid to the universities indicated varied responses. Respondents who indicated that 10 percent of extra earnings from consultancy services is paid to the university constituted 12.5 percent, while 9.3 percent of respondents stated that 5 percent of extra earnings is paid to the university if facilities of the university were used. The non-response rate was as high as 68.8 percent which signifies how hesitant people are in divulging financial information, especially if it concerns the individuals.

The academic heads explained that the rationale for venturing into research/consultancy services is to mobilize IGR and therefore, 57.5 percent of the academic departments have changed their research agenda to attract IGR, targeted at external clienteles. Some 65.3 percent of academic heads have enjoyed research cooperation with external financiers to attract IGR and not to solve local communities' problems.

The core function of scholarship which is the central role of academia in the universities is to generate an intellectual environment that stimulates inter disciplinary knowledge discovery capable of significantly solving problems and pursuing teaching that promotes public service; and these should be the mission of universities (Boyer 1990). The significance of research should therefore target local problems and serve as local inputs for solving community problems. Clearly, the role of the state in not providing sufficient financial support to public universities accounts for the limited appreciation of how higher education institutions could positively impact on society (Bloom, Canning and Chan 2006). Commenting on the role of universities in society, Lynch (2006:7) has opined that the research agenda of institutions should not be driven by the private sector value systems directed and controlled by for profit-interest if the public interest is to be served. The universities' core asset of independence of thought would be in danger, by compromising public trust in its scholarly integrity of teaching and research (Lynch 2006; Lieberwitz 2004).

8.4.4 Effective Use of Logistics Support for improved IGR

The Resource Dependence Theory elaborates on the usefulness of organizational effectiveness to produce actions and results acceptable to its stakeholders (Pfeffer and Salancik 1978). The theory further explains that organizational effectiveness is valued and assessed by external standards for avoidance of misjudgment by the operating workforce (ibid.) Any genuine judgment could only be given by stakeholders who are not directly involved in the operations of the organization through the output of the organization. The vital logistical inputs that would enhance IGR mobilization in the universities are the focus for the next section of discussion.

a. Policy Document for IGR Mobilization

The accounting professionals who were respondents indicated their knowledge of the existence of policy documents that guide the universities in improving upon IGR mobilization. Respondents who indicated that there is a policy document to guide IGR mobilization constituted 40.6 percent while 59.4 percent of the universities are not using any policy document to guide their IGR mobilization efforts. The importance attached to IGR generation requires effective strategies to diversify the sources and this demands that IGR goals and objectives to be achieved within a specified period is set in addition to defining actions required to achieve the set goals (Hamel and Prahad 1993). Accordingly, refusing to plan strategically for IGR mobilization is tantamount to planning to fail in the IGR mobilization efforts. Respondents whose universities have strategic policy documents to guide IGR mobilization explained the usefulness of the policy document as:

- Increase in IGR mobilization
- Improved cash flow
- Prescribed motivation for staff engaged in IGR mobilization
- Minimal effect.

The lack of a policy blue-print and non-availability of databases in some of the public universities involved in the research study is very worrying. Funding is the life blood of every institution and so long as public universities depend mostly on IGR to sustain the implementation of their annual programs, similar attention needs to be given to the IGR mobilization exercises as is given to the delivery of their core mandate of teaching, research and community engagement.

The universities design medium and long term strategic plans for their core mandate and allocate a small portion of the plan for IGR generation which is not enough to make them competitive in their IGR generation exercise, especially, with the emergence of many private tertiary education institutions. It is not surprising that the contest for foreign students in Ghana is already lost to the private tertiary education institutions. So long as the nation continues to encounter cash flow challenges, public universities would continue to compete for the scarce national resources with other equally important social needs such as health services, physical infrastructure and others. The need for strategic planning for IGR in public universities is imperative; not only for IGR inflows but also its prudent use and management.

b. Availability of Database for Effective Budget Design

Feedback on the availability of databases in the universities for effective and workable annual revenue and expenditure projections showed 65.6 percent of respondents confirmed the availability of a database while 34.3 percent indicated no knowledge of a database. The reported non-availability of databases signifies how the universities down-play the usefulness of planning and data management and this is cause for concern. Obviously, some university institutions have inefficient financial management systems, poor planning, and weak institutional capacity (Yigezu 2013), and spend funds as and when available without any strategic fiscal planning. This further explains why the government plans to implement the recapping policy of demanding 34 percent of public universities' IGR annually because public universities spend more than the projected revenue in their annual budgets as the finance ministry interview respondent indicated.

c. Required Facilities and Systems for Improving IGR Mobilization

Respondents' reaction to what facilities and systems the universities should develop and have in place to enhance IGR mobilization indicated the following:

- Establishment of IGR Coordination Center: 37.4 percent agreed; while 62.5 percent were either undecided or disagree
- Hiring of fund raising expert: 59.4 percent agreed, while 31.2 percent were undecided
- University has hired a fund-raising expert: 12.5 percent agreed, 65.6 percent disagreed
- Available planning manual to guide revenue projection: 68.7 percent agreed, 18.8 percent undecided

• University has strategic plan to enhance IGR: 68.7 percent agreed, 15.6 percent undecided, 15.6 percent disagreed.

Responses to specific actions needed for fiscal discipline to improve funding in the universities indicated that:

- Universities exploring diverse sources of IGR: 78.1 percent of respondents confirmed diverse sources are being used for IGR generation while 12.5 percent are undecided
- Achieving revenue targets set in the annual budgets: 28.1 percent confirmed, while 71.8 percent either disagreed or were undecided
- Annual IGR targets are well defined and communicated to stakeholder: 50 percent confirmed, 34.3 percent disagreed, with 15.6 percent undecided
- Mid-year annual budget review held: 31.2 percent confirmed, 43.8 percent disagreed, with 25 percent undecided
- Detailed quarterly revenue plan given out as a guide: 12.5 percent confirmed, 68.7 disagreed, while 18.8 percent undecided
- IGR mobilization process exposed to corruption and misuse: 21.9 percent confirmed, 53.1 percent disagreed, with 25 percent undecided.

A finance director interview respondent explained that the university finances are managed by the finance directorate and that no specific office is detailed to monitor the performance of IGR in the various sections of the university. Accounting professionals survey respondents indicated conflicting views, though no concrete decision was arrived at. Because these are all accounting professionals in different universities, perhaps some universities have such centers while others do not. In research into improving IGR generation and maximize the sources for efficiency in higher education, a recommendation was made for the creation of an IGR Coordination Centers (Onuaha 2013). Again, most respondents appreciate the usefulness of fund-raising experts to facilitate IGR generation, but most of the respondent stated that no such expert or office existed in his university but acknowledges that such experts would be useful. The challenge is the inability of the finance professionals to impress upon university management to engage such experts if indeed, their expertise would be useful. Other issues raised which account for budget

deficits in some universities are: inability to achieve revenue targets, inability to conduct midyear annual budget reviews, and inability to give quarterly revenue plans to guide expenditures in the sections and units in the universities. Clearly, corruption is a worrying issue, especially with the assessment coming from the finance monitoring group in the universities (selfassessment).

8.4.5 Motivating the Human Component of the Technical Environment

Pfeffer and Salancik (2003:190) have identified individual workers in an organization as part of the technical environment whose skills and expertise are resource inputs for the survival of the organization. Motivating this critical organization resource is very relevant.

a. IGR Involvement and Professional Progression

There is a need for management to design financial and non-financial incentive packages to motivate and increase staff commitment and minimize resistance by the working community to IGR mobilization. The motivation package should be both intrinsic and extrinsic to reward staff based on their value systems depending on what is relevant to the employee (McInnis, 2001; Clark, 1983; Judge & Robbins, 2008). Respondents' feedback to the idea of management motivational packages showed that their successful involvement in IGR mobilization does not enhance their professional progression (46.6%), while a section of respondents does enjoy professional progression with their successful engagement in IGR mobilization (37.4%). Invariably, those who do not enjoy any professional progression from IGR involvement may not be very active in IGR activities.

b. Direct Benefit for IGR Involvement

Academic heads constituting 56 percent of responses confirmed the existence of institutional packages designed to improve working conditions of staff in general in the universities with improved IGR mobilization. However, 44 percent of respondents either disagreed (24%), or were undecided (20%) that improved IGR results in improved working conditions. The enhanced working conditions included increases in sponsorship of academic packages for conferences and seminars and improved research facilities and others. It is envisaged that staff who do not benefit from successful engagement in IGR in the form of direct personal incentives or institutional

welfare packages would have their commitment reduced. They are most likely to resist management efforts at IGR mobilization among staff claiming it is extra work and not part of the core mandate of the university as espoused by McInnis (2001); Clark (1983); Judge & Robbins (2008). The universities' management should therefore be guided by the concerns of staff and identify what would motivate them to embrace IGR operations if the needed resources are to be mobilized to complement the declining subvention. However, the motivation packages designed should not be at variance with statutory provisions with regards to the use of state funds in order not to fall foul of the laws of the state.

Invariably IGR mobilization in the universities should be influenced by laws and policies with the funding and incentive packages prescribed in accordance with the institutional environment and the unique characteristics of individuals in the university involved in the operations (Jacob et al. 2003; Friedman & Silverman 2003). As a way of dealing with internal power blocks and possible resistance and to motivate staff to improve upon IGR mobilization in their departments, the management of Makerere University allowed the IGR mobilization units to hold and manage a greater proportion of funds mobilized. However, because the directives did not reflect the implications from its external constraints, there was resistance from the Public Universities Visitation Team which directed that IGR was public funds and should be managed centrally in the University for efficiency, transparency and accountability (Mayanja 2008).

8.5 How is the Available Internally Generated Revenue (IGR) Spent in Public Universities in Ghana?

The neoliberal model of delivering university education through marketization and its associated cuts in public funding support compels the universities to mobilize IGR to provide the needed educational infrastructure as well as routine running of the administrative machinery. University management must adopt the private sector managerial style to be self-dependent and financially sustainable to remain competitive in the delivery of its mandate (Lawrence and Sharma 2002). The implication is that most expenditure in the universities should be funded with resources raised within the university without overly depending on the state. Obviously, the universities expend their IGR to finance their programs and infrastructural projects, other than payment of workman's compensation which is the only expenditure item receiving state funding support,

which according to a finance director interview respondent is not adequate and IGR is used to supplement state funding. This section discusses how the universities spend funds mobilized internally.

8.5.1 The level of IGR Support for Development Projects

The relevance of material resources such as teaching and learning material, physical infrastructure and facilities in complementing human resources and good governance is critical to enhance quality delivery of the public universities' core mandate of teaching, research and community engagement (UIS 2011:76). The expenditure trends in public universities are divided into two main categories which are current and capital expenditure. Expenses on routine consumables are covered by current expenditure which has two components of workman's compensation and non-workman's compensation with the latter covering expenses for teaching and learning materials, administrative costs for running the bureaucratic processes and many others. Capital expenditure involves durable items such as physical infrastructure and other material resources.

Accounting professionals survey respondents confirmed that part of IGR was allocated for infrastructural projects and the percentage allocation breakdown was given as: more than 30 percent of IGR funds (15.6%); at most 30 percent of IGR (31.3%); don't know the percentage allocation but there are IGR projects (53.1%). A university management interview respondent indicated that funds allocated to colleges/faculties/schools are mostly for administrative costs for running academic programs such as purchasing teaching and learning materials, office facilities/equipment, external assessment costs, payment of monitoring and assessing students' practical and academic work, office furnishings, equipping and stocking libraries, and others. According to the university management interview respondent, some academic programs do not enroll many students but are very relevant for national development. Such programs are subsidized with funds from popular and well patronized academic programs without recourse to cost efficiency. Invariably, the marketization of universities resulting from neo-liberal ideology and state funding cuts has weakened academic programs such as the arts, humanities and social sciences that train students to be critical thinkers but do not service the for-profit service sectors directly, but train quality human resources for the public services and civil society which are not

profit oriented (Webster 2004). The closure or ineffectiveness of these academic programs resulting from low student patronage and poor funding would imply weakening the public and civil service operational machinery which would weaken law and order in society. The role of IGR in complementing funding to sustain the unattractive academic programs is commendable.

a. Actual IGR-Supported Projects

Respondents expressed their awareness of IGR funding support for physical projects, other than administrative costs in the departments, with 71.9 percent indicating that IGR has partly or fully funded some physical projects in the universities since 2010. The IGR-funded projects range from lecture theatres, examination complex, new administration blocks to student hostels, ICT infrastructure, laboratory equipment, road construction, provision of clean water, health infrastructure, banking infrastructure, staff and student offices and many others; as enumerated by respondents. Obviously, the efforts of the universities to improve upon the quality of their output goes beyond numbers of graduates trained and the number of years spent in the universities (OECD 2010a). The quality of delivery manifests in the output of the graduates for poverty alleviation and wealth creation which propels socio-economic growth and development in developing economies (ibid.). This task requires availability of quality human and material resources to equip both the trainers and trainees for effective teaching and learning. Invariably, the limited access and declining quality of higher education in SSA is attributable to the lessening and inadequate material resources as performance of African higher education flourished in the 1960s and 1970s (Ahamefule 2014:13); periods when total funding was provided by the state. The capacity to access additional resources from both government and through IGR mobilization efforts to a large extent would determine the successful expansion of academic facilities in the higher education institutions so as to be competitive globally in delivering their mandate in the knowledge society (EUA 2011).

It was in recognition of the relevance of educational infrastructure to improving tertiary education that the Ghana Education Trust Fund (GETFund) was established in 2000, through the enactment of Act 581 (Auditor-General 2013:1), to provide and improve the development and general infrastructure base of tertiary education. This fund accounted for about 12.9 percent of public expenditure in tertiary education in Ghana (Atuahene 2009:43). In addition to improving

infrastructure, the facility further allocates funds for research, scholarships and grants for academically bright students from poor family backgrounds as well as financing the Students' Loan Trust Fund (Atuahene 2009:40, 41). The GETFund allocation for academic infrastructure to universities ceased in 2015 and IGR is utilized to complete on-going GETFund projects to expand academic infrastructure a finance officer interview respondent explained.

Efforts to sustain the IGR supported-projects is so vital that the initiative needs to be improved and sustained by improving the IGR generation as well as its percentage allocation to fund resources. Evidently stakeholders such as students when aware of the use of IGR for infrastructural projects for their benefit, are motivated to contribute in the form of increased AFUF and other forms of fee payments ungrudgingly. Other stakeholders and donors are also motivated by the efforts of the universities to improve their infrastructural base with IGR and contribute through private-private-partnership (PPP) ventures. This is evident in the injection of about US\$7m into infrastructural development in one of the universities as revealed by a university management interview respondent. There was also a US\$64m PPP investment in another public university in Ghana in 2015 with Africa Integras on a 25-year build-operatetransfer (BOT) venture (University of Ghana 2018). The investment would construct four new academic buildings and 1000 student-beds hostel on the university campus (ibid.). Through this feat, public universities' relevance in national development is demonstrated and point indicates to governments in developing countries the need to negotiate for such PPP ventures to improve upon the general infrastructural base in their countries.

b. Impact of the IGR-Funded Projects in the Universities

Respondents' feedback about the effect of the IGR-supported projects on the corporate image of the universities showed that 71.9 percent confirmed that the projects have given a facelift to the corporate image of the universities, while 25 percent indicated no knowledge of the projects enhancing the public image of the universities. Justification cited by respondents for the positive image posturing of the IGR-funded projects in the universities are: improved access to academic facilities for use by both staff and students; beatification of the university campuses; improved student enrollment and academic work and improved work attitudes. Expressing the positive role of the IGR projects in the university management interview respondent indicated

that his college has two major on-going IGR-projects each costing GH¢15m (US\$3.3m) without any support from the government. He explained that several projects including beautification walkways were all constructed from IGR, as well as acquisition of office equipment, facilities and machines all procured with IGR funds as government subvention only covers the payment of workman's compensation.

c. Funding of Motivation Packages for IGR Engagement

With the relevance of IGR mobilization to the universities' mandate delivery well explained, respondents explained the incentive packages in the universities that motivate staff to be active in IGR mobilization operations. The feedback showed 50 percent of respondents confirmed availability of incentives for staff who successfully engage in IGR mobilization, while 50 percent either indicated no incentive package for staff who were successfully involved in IGR (18.8%), or don't know whether there is any incentive package (31.3%). Given that 50 percent of respondents indicated either no incentive package or don't know of any such package implies that the universities are not sufficiently communicating with or motivating staff to be committed to IGR mobilization. A labor union interview respondent explained that there used to be enough incentives for staff involvement in IGR mobilization; be it sandwich programs or consultancy services. However, some of the packages have been withdrawn to reserve funds to manage the academic departments so staff undertake extra work but are inadequately compensated for their efforts. Some 28.1 percent of respondents indicated that the incentive packages are funded from the mobilized IGR. There was a non-response rate of 71.9 percent in terms of indicating the funding source for the incentive packages.

8.5.2 Rating of the Use of IGR in the Universities

With the understanding of how staff motivation is suppressed in the interest of reserving funds to finance programs/projects in the universities, respondents assessed the efficient use of IGR to improve academic work, improve academic staff welfare and improve non-academic staff welfare. Responses indicated the following: efficient use of IGR to improve upon academic work (68.7%); improve upon faculty welfare (68.1%); improve upon non-academic staff welfare (53.2%). A labor union leader interview respondent indicated that the university utilizes IGR for infrastructural projects and commends management for the efforts. However, investments are in

infrastructural projects that support the comforts of students such as residential accommodation as well as roads maintenance, but not directly for his constituent members (faculty staff). The respondent added that as most of the IGR is generated through the efforts of the academic staff, management should as well invest in projects such as staff residential accommodation to house staff on university campuses to motivate and enhance staff work performance. Further observation was made by the academic staff labor union leader that the university exploits their expertise to generate and improve IGR to the extent that their annual leave days are sacrificed without direct benefits to them. Even relevant academic journals required to improve upon their delivery are not available and the academic staff have to subscribe for some of these journals with their personal resources.

The concerns raised by the labor union interview respondent about inadequate use of IGR to promote faculty welfare negates the responses of the accounting who gave a very good rating for the use of IGR to improve the welfare of academic staff. The contrary views reveal mutual suspicion between university senior members, academic and non-academic, as to who benefits from IGR in public universities. More so, as the accounting professionals rate themselves and their constituent groups good (53 percent); while academic staff are rated very good (68.7 percent). The quest for improved IGR in public universities to fund the annual programs of universities and plans in this era of declining and persistent delays in subvention releases requires concerted efforts by all professionals, and issues of who generates IGR but benefits less would not facilitate unity of purpose among all staff.

The observation of the labor union respondents tallies with the corporate operational ethics of the new management paradigm which has introduced private sector imperatives into the universities and created increasing intensification of academic labor to raise adequate funding for the universities due to state funding cuts (Swensson et al. 2010; Beverungen et al. 2008) The increasing intensification of academic labor has resulted in extended work-loads, longer working-hours, inconsiderate employment contracts and management control systems (Clark et al 2012; Archer 2008). Further the new public management ethics promotes student interests as customers in order to encourage them to enroll in the academic programs, so they can provide the required financial resources the universities are in need of (Singh 2001). It was not surprising

that IGR projects are mainly concerned with providing facilities for students. Though promoting student interests to attract their funds is relevant, equally important is the welfare of staff who labor to ensure that the students achieve the purpose for which they enroll in universities programs.

8.6 How does IGR Mobilization affect Delivery of the Core Mandate of Universities in Ghana?

The consequences of the extensive IGR activities on the performance delivery of the universities are the focus of this section. The discussions elaborate on the positive and adverse effects of the IGR mobilization operations with the academic heads and student leaders' responses as the main subject around which the discussions revolve.

8.6.1 Contribution of Improved IGR Mobilization to Capacity Development in the Universities

The Resource Dependency Theory has espoused that an organization is composed of the Technical (task) and Institutional parts which are connected in the operational processes to make the organization effective and achieve its mandate. Whiles the technical part refers to the sources of inputs, markets for outputs, competitors and regulators, the institutional environment refers to the social-cultural values, and the political environment which defines the existing political, social and economic incentives that prescribe the strategies to be used for its mandate delivery (Pfeffer and Salancik 2003). The organizational environment further offers opportunities and constraints on actions and decisions and therefore influences the operations of the organization. The opportunities and constraints for staff and students who are part of the technical environment (sources of inputs and outputs), and their effect on the operations of the universities are discussed.

a. IGR and Human Resource Capacity Training of Faculty

Developing the skills and competencies of staff who provide inputs (technical environment) is critical to the successful delivery of the universities' mandate. The appointment and retention of terminal (PhD) degree holders is critical in ensuring quality research work as well as facilitating academic program design for teaching and supervision of students' research work in higher education (Mushemeza 2016:238: Tettey 2010:11). Unfortunately, declining public subvention has drastically reduced sponsorship packages for terminal degree programs especially for faculty members employed without terminal degrees and public universities must fully or partly sponsor some faculty members with IGR to acquire the degree. Academic heads' feedback indicates that total faculty capacity in the departments engaged in the study was 1005 with a gender ratio of 70.5 and 26.8 percent for males and females respectively. The PhD degree holders constitute 64.5 percent (649), while 35.4 percent (356) do not have a PhD degree. Currently, it is mandatory for anyone seeking a faculty appointment in a public university in Ghana to possess a terminal degree. However, those employed earlier without terminal degrees should be motivated and encouraged to study towards a terminal degree to enhance their productivity. The universities' social-cultural values which have now become a policy would not permit any faculty member without a PhD degree to professionally progress beyond a senior lecturer and its analogous ranks irrespective of the number of publications one has.

Academic heads indicated that IGR has been instrumental in financing faculty members for PhD programs, with 40 percent of departments having sponsored up to five staff, while 9.3 percent of departments have also sponsored at least 21 staff since 2010. The sponsorship packages offered include: payment of tuition fees only (21.4%); payment of all expenses involved (20%); payment of monthly stipend, air ticket and transport costs 9.3%); and payment of air ticket and transport costs only (6.7%). Obviously, IGR is incapable of sponsoring many faculty staff for PhD programs because of many other expenditure items it covers including infrastructural development, supplementing state subvention to pay workman's compensation, and settling bank interests, partly because of government's untimely releases of funds. The sponsorship packages offered means beneficiaries should search for other external sources to supplement funding of their PhD programs. Other departments have also funded staff with IGR to attend conferences and workshops, with 44 percent of academic departments having sponsored at least 21 faculty members each since 2014. However, feedback on the level of sponsorship for the conferences and workshops received a non-response rate of 76 percent; respondents are not interested in divulging information on the sponsorship package, although, 1.3 percent of respondents indicated that all expenses were paid by the university with IGR. A university management interview respondent explained that faculty staff are sponsored with IGR to attend conferences

and make presentations while others are also funded to pursue terminal degrees without any financial assistance from the government.

The role of universities revolves around scholarly creativity in pursuing research, publications, and more importantly, dissemination of knowledge generated through research, which are guided by well-defined goals, adequate resources, application of modern technology, relevant results, effective and timely presentation; and analytical and reflective critique (Boyer 1990; Glassick 2000). Invariably, this important role of the universities has been challenged by state funding decline with adverse effects on organization/participation in international and local conferences where research outcomes are often communicated for intellectual discourse and exchange of ideas. Again, the universities' IGR has become a major source of sponsorship for faculty members to participate in conferences and workshops at the local and international levels.

b. IGR and the Provision of Office Facilities and Equipment

The provision of well-furnished offices for faculty and other staff is essential in motivating them to contribute effectively and efficiently to the universities' annual productivity targets. The observation that state funding support is allocated for workman's compensation, which is inadequate, suggests that IGR should be raised to make available furnished offices for all staff. Academic heads responded that 49.3 percent of furnished offices are funded with IGR. However, 51 percent of academic heads' responses indicated that IGR does not support office furnishing (24%), while others stated they had no knowledge of the contribution of IGR in providing furnished offices for staff. Respondents did not explain the sources of funding for their offices if the state funding support does not cover office refurbishment and IGR is also not the source. These are worrying observations made from academic heads whose jurisdiction in the departments covers both academic and administrative operations. If they could not identify the source(s) of funding for such an important facility required for the running of their department then they may not be in full control of the departments and may not be concerned with faculty having good furnished offices. As a labor union interview respondent explained, some faculty staff are appointed to leadership positions without any managerial skills and competencies and are not ready to learn and the universities' management do not expose them to such managerial competencies. All that is required is that a faculty member has published enough and been

promoted and should be a head; but the leadership position is not to manage only academic curricula but the administrative processes that enhance the running of the academic programs.

c. Relevance of IGR in Teaching and Learning

University education trains human resources at the highest level and the principle for developing human capital is to improve the value and efficiency of workers while expecting future returns on the resources invested in the training (Becker 1993). Obviously, the knowledge and skills individuals acquire through university education yield higher earnings at the place of work for the individuals with spillover effects to society and thus, worth every investment made (Armstrong 2006). The ability to improve upon its IGR to supplement state funding support is considered very important for the expansion of academic infrastructure and other facilities in a university (EUA 2011).

Student leaders respondents who provided feedback to Likert-type questions expressed the relevance of improved IGR in improving teaching and learning in the universities. Clearly, 53.9 percent of respondents confirmed that increased IGR improves the available academic facilities in the universities to enhance student learning, while 89.9 percent agreed that improved IGR facilitates the provision of improved academic infrastructure in the universities. Some 65.6 percent of respondents confirmed that improved IGR improves teaching and learning facilities for quality academic work, while 59.6 percent indicated that improved IGR provides motivation packages for students to achieve academic excellence. The student leaders' responses confirmed that 90 percent believed that extensive IGR operations make available many academic programs, which offer students, the opportunity to select programs of their choice and which are affordable. Some 71.9 percent of respondents indicated that IGR mobilization and commercialization in the universities have made their lecturers very committed and deliver their mandate professionally. Commenting on student attitudes towards tuition and other forms of fees payment in the universities, Eboh and Obasi (2002) have espoused that though students appreciate the relevance of extensive IGR in the universities, fee increases are fiercely resisted by student in the form pf protest demonstrations which often lead to destruction of lives and property.

Explaining the relevance of improved IGR, a finance director interview respondent indicated that there are part-time lecturers who teach critical courses in the universities and they are paid from IGR because state subvention for workman's compensation does not cover part-time lecturers. Invariably, students' perceptions of university management's misuse of IGR in addition to government reneging on its statutory responsibility of adequately supporting the universities financially, compel them to fiercely resist any attempt to increase students' financial commitment to the universities. The contention of Buchert and King (1995 in Johnstone 2006) is that any government with the political will could raise substantial revenue to fund higher education fully, without any cost sharing which deprives children from poor family backgrounds access to higher education. This would also phase out the dangers associated with implementing expensive and ineffective financial aid programs with very high administrative costs to the state and ensure value for money (ibid). Clearly, the outcome of the "feesmustfall" movement in South Africa where the government has decided to fund all tertiary education students whose combined household annual income is R350,000 or less (US\$28,000 per annum at R12.5 to UU\$1 as at 5th June 2018) is a clear indication of how nations can commit to managing higher education funding. Clearly, offering free tertiary education would mean reprioritizing national expenditure and cost cutting from other areas to support tertiary education. As governments in SSA aim at reducing poverty among its citizens, and unemployment is lowest with people having tertiary education degrees (Gigaba cited in Tshwane 2018:2), granting free tertiary education for children from middle and lower income families could elevate such families from the shackles of poverty.

8.6.2 Drawbacks of Extensive IGR Mobilization on the University Mandate Delivery

The state's inability to adequately fund the universities results in university managements exploring the environment to access alternative funding for the needed resources to implement their mandate. As the universities explore a range of resources from the environment their core mandate delivery as a social good encounters challenges and they must manage their autonomy by reducing their dependence which limits their operational options as educational institution providing social goods (ibid.); these limitations are the focus of this next discussion.

a. Limitations of IGR Drive on Faculty Research Agenda

Atuahene (2011) has emphasized that research work in public universities is targeted at knowledge creation, innovation and dissemination of information, all geared towards socioeconomic development. In Ghana, public universities' involvement in research is not only for knowledge creation but to commercialize research to improve upon their IGR generation. Consequently, academic departments in public universities restructure their research agendas to attract funding as a way of improving their IGR generation. Feedback from academic heads showed 58.7 percent who confirmed that their department's research agendas have been restructured to attract financiers. Almost half or 48 percent of respondents indicated that their departmental research focus is user-driven designed to suit external sponsors who would easily release funds for a particular purpose. Thus, academic departments engage in research cooperation with stakeholders who would fund and pay for the research output. The implication is that research activities of these academic departments are tailored to generate knowledge not necessarily useful to their local communities' development programs which is at variance with the assertion of Mamdani (cited in Mulondo 2010) that local research outcomes should be a good resource-input to solving local developmental problems. Obviously, public universities are expected to produce academic knowledge that is deemed as a public good and not to be commercialized for those who can afford to pay to monopolize the created knowledge (Bok cited in Hejwosz 2010:4).

Elton (2000) has criticized the SSA governments for the decline in the financial support to the universities which has compelled the universities to operate as private commercial entities and pursue industry-related research to access needed funding. Academic knowledge is expected to be for the overall benefit of society at large, the weak, vulnerable as well as the economically powerful groups, to justify the need for adequate public financial support. Academic research should link higher education to society by focusing universities' research agendas on finding solutions to societal problems to enhance socio-economic development and thus become relevant to society. However, under the current public funding regime, universities cannot be faulted for commercializing their research as these research/consultancy services provide the needed resources. As explained by a finance director who was an interview respondent, research financiers provide equipment and facilities to the universities if those facilities are required for
effective work but not available at the host university; a supposed responsibility of the state left for the profit-motive private sector to perform and reap the benefits at the expense of the state.

b. Extensive IGR Drive and Expanded Faculty Workload

Academic heads in a majority, constituting 58.7 percent confirmed that the IGR drive is associated with increased workload for faculty. Reasons cited for the expanded workload resulting from the IGR drive include: few number of lecturers teaching many courses, high student intakes resulting in lecturers working at the weekends, increasing research activities and other roles assigned by the university. Obviously, not all academic departments have expanded workloads because not all departments are engaged in the IGR drive since not all academic programs are attractive to prospective students who invest their funds into programs. As a finance director interview respondent indicated, academic programs mounted for fee-paying are cancelled if the number of students enrolled are few and fees paid cannot cover the cost of mounting the program.

The finance director interview respondent's explanation exposes the weaknesses in academic commercialization where academic programs are rated by the quantum of funds they could generate and not their social benefits. In such situations, academic programs that train quality human resources for the public services and the civil societies which are not profit oriented but noted for teaching students critical thinking, tend to suffer and face possible extinction (Webster 2004). It was not surprising that the Centre for Contemporary Cultural Studies and Department of Sociology at the University of Birmingham was closed in 2002 (ibid.) for not enrolling adequate students. Invariably, graduates in academic disciplines whose output cannot be easily quantified and measured but play a key role in the effective functioning of state administrative machinery and civil society operations risk may not be well-funded and become unpopular. As espoused by Saha (in Oleniyan and Okemakinde 2008:482), countries should ensure that educational demands should bring costs and benefits to realistic levels. The World Bank requires that academic programs which have less external efficiency measured by the level of unemployment should be phased out by imposing high tuition fees to make them unattractive (Spring cited in Oliver 2004). This prescription really calls for the training of vocationally-

minded individuals who would lack critical thinking to interrogate and investigate issues to question the status quo required for social change and development (Scott 2018).

c. Adverse Effects of IGR Mobilization on Quality of Delivery and Curricula Specialization

Academic heads, disagree that increased IGR drive adversely affects the quality of staff output (60 percent). This is at variance with the observation of a labor union leader interview respondent (academic staff) that the quality of faculty teaching is adversely affected by increased IGR drive. As public universities vigorously pursue IGR mobilization, different academic programs are run continuously with the same academic staff involved in teaching which is very stressful and impacts negatively on their quality of output. The labor union leader respondent further indicated that the many students enrolled in public universities make it difficult to set critical thinking essay questions during examinations which affects the quality of trained graduates. A university management interview respondent further explained that some faculty staff focus their attention on consultancy services at the expense of teaching which adversely affects the quality of students trained. Invariably, staff output is most likely to suffer as per the 73.3 percent of academic heads survey respondents who disagreed that there are adequate resources to effectively deliver their assigned responsibilities.

A finance director interview respondent explained further that the poor conditions of service do not appeal to very good young and old professionals and it is difficult to get them to accept appointments in public universities which promotes mediocrity in the long run. In some situations, the universities would have to hire the services of such good professionals on a parttime basis and remunerate them with IGR. Barr (2003) has indicated that the introduction of market oriented academic programs introduces competition among universities who make efforts to improve efficiency and quality to attract students with money to pay fees. However, management efforts to improve efficiency in order to attract students is nullified by the attitude of disgruntled and demoralized staff due to poor conditions of service, a finance director interview respondent explained.

Again, the quest for IGR makes public universities explore offering any academic program deemed attractive to prospective students without recourse to their area of specialization.

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Enrollment into academic programs has now become a competition with most universities making efforts to attract students for the same market-oriented academic programs available in all the universities, a university management respondent explained. The Ministry of Education interview respondent further indicated that the universities have deviated from their core mandate for which each was established in their quest for IGR. The government policy for enrollment in the universities which is 60:40 percent for sciences/technology and arts/humanities respectively, yet the current ratio is 60 percent for arts/humanities while science and technology is 40 percent. Unfortunately, the NCTE that should enforce the policy is crippled by the ACT that established it as it cannot sanction defaulting institutions.

Student leader respondents whose responses constituted 56.2 percent indicated that universities enter unhealthy competition at the local and international levels to improve upon their IGR. The expressed unhealthiness lowers academic quality among the universities as attempts to enroll more students may result in underhand dealings such as enrolling unqualified applicants, reducing standards and other unacceptable practices. Inevitably, there is a qualitative relationship between unethical practices and reduction in quality of output in the university institutions and ensuring academic quality requires embracing ethical practices (Ahamefule 2014). Such unethical practices in some universities have resulted in some faculty staff charging students to write their project work for them while others also engage in illicit sex in exchange for marks and thereby branding some universities in Africa as awarding "sexually transmitted degrees" (Kanu and Akanwa 2012). Clearly, the extensive IGR drive resulting from the state subvention decline has not only lowered academic quality but has manipulated state policy on human resource training needs of the country. The state cannot sanction the university institutions for their breach of state policy when it has defaulted in terms of its financial responsibilities to the universities.

8.7 Conclusion

This chapter has analyzed the findings of the study as reported in Chapters six and seven in the context of the literature review and the theoretical models guiding the study. The neoliberal system of delivering public goods has necessitated government expenditure cuts which has been extended to the funding of the universities considered to be a social good for their role in training

human resources required for socio-economic development. The concerns of the universities have been about how to fund their mandate of teaching, learning, research and community engagement within the context of government funding cuts; despite the 1992 Constitution of the Republic of Ghana's provision of free tuition for all citizens at all levels of education. The study highlights the experiences of staff and students as well as the challenges and opportunities they encounter in funding the universities' mandate delivery. Again, the approach adopted by the universities to mobilize IGR, how IGR is spent, and the consequences of the extensive IGR drive on the mandate delivery of the universities are discussed.

The study indicates that inadequate state fund inflows coupled with increasing competing demands for social goods and infrastructure make fully-funded universities unrealistic and unsustainable. The realization that the beneficiaries of university education enjoy higher employment opportunities which secures them a middle-class standard of living, in line with the human capital theory, justifies cost-sharing; which the beneficiaries and their parents have accepted. The cost-sharing has created the situation where state funding support to the universities is restricted to the payment of workman's compensation, excluding compensation for part-time staff engaged by the universities. The universities therefore engage in other roles beyond the normal teaching, research and community engagement to access funding to supplement government subvention to the displeasure of staff who complain of expanded workloads with minimal direct benefits. Obviously, the major areas of mobilizing the extra funding are in their traditional roles where they have the competencies and expertise. The need to mobilize alternative sources of funding and its negative impact on staff has necessitated the introduction of fee-based tuition for students irrespective of the ability to pay; to the disadvantage of children from poor family backgrounds.

Ironically, despite the state funding cuts government has several policies to regulate the operations of the universities which inhibit their ability to mobilize adequate financial resources for their operations. Again, the state funding is often not released on schedule which plunges the universities into further debt as they must access bank loans and other credit facilities to pre-finance their programs and pay the interest charged on the loans. This development has made a university profession unattractive to some quality professionals whose services are needed; and

the services of these professionals are engaged as part-time staff and paid through the universities' internal resources. The funding challenges have made the universities resort to academic and non-academic sources to mobilize funds such as designing market-oriented academic programs to attract local and foreign students, organizing short courses for the public and charging fees, investment in estate management, commercial water production, commercial farming and others. Unfortunately, the private universities have adopted cost-undercutting measures and reduced academic rigor to make them more attractive than the public universities to the international student market, with dire consequences on the quality of graduates trained. Again, efforts have been made for efficient and transparent use of the available resources to motivate donors to financially and materially support the universities, however, the efforts need to be strengthened. The study revealed that the universities are unable to adequately explore such sources as consultancy services, fundraising activities and endowment funds to access adequate funding as happens in universities in advanced economies. It was revealed that most faculty staff do not have proposal writing skills to attract funding for larger projects where the universities could enjoy a larger overhead cost associated with big projects paid to the host institution, and the university management have not invested in the grantsmanship training for their faculty.

Another important area not well explored by the universities is the use of public-privatepartnership opportunities to invest in commercial activities that would yield enough returns considering the universities and their environment serve as existing markets for such investments. The utilization of mobilized IGR has been instrumental in providing academic infrastructure in the universities which facilitate quality delivery of its mandate as well as assist in expanding access for students due to improved facilities. The beautification of the university environment has also improved, resulting in better working conditions for staff and an enhanced corporate image of the universities. It has also been useful in developing the capacity of staff, as well as provision of furnished offices for staff in the universities. However, the extensive IGR drive pushes the universities into research agendas that are donor driven, mostly patronized by external donors that do not benefit the local communities. Again, the IGR drive has nullified specialization as the universities compete for students in academic areas that students are ready to pay fees for and patronize, without recourse to the area of specialization each university was established to pursue. Ironically, the NCTE that supervises the universities is not sufficiently resourced to monitor and ensure that the level of deviation from each university's mandate is minimal as the ACT that established the coordinating body does not equip it to sanction unacceptable action, an observation which is being resolved by the Ministry of Education.

Again, the excessive IGR drive has adversely affected the quality of staff delivery as the expanded workload does not permit adequate time for preparation in addition to fatigue as the same staff are used for the many university programs at the expense of their health. The commercialization of academic programs has adversely affected access for children from poor family backgrounds to the advantage of the few rich in society. Finally, the quest for IGR motivates the universities to enroll many students resulting in large class sizes due to inadequate lecture rooms and faculty. These make it very difficult to train students to be analytical thinkers as examinations are mostly multiple choice in nature, the end results being the production of poor quality graduates, a major cause of graduate unemployment in Ghana. In conclusion, the state subvention decline has adversely affected the university institutions, staff and students from poor family backgrounds and some students in the system take longer periods to complete their education because of their inability to pay fees. In the extreme cases, some are unable to access admission while others also drop out.

CHAPTER NINE CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction

This chapter provides a summary of the study findings, conclusions, and makes recommendations in the context of the findings in the preceding chapters. The chapter concludes with the policy implications of the study and makes recommendations for further study into internally generated funds mobilization and funding in public universities. The chapter summarizes the findings for the research questions as follows:

- i. What are the current experiences of staff and students with regards to state funding of public universities in Ghana?
- ii. What are the funding challenges and opportunities in public universities in Ghana?
- iii. What funding strategies have been employed to generate revenue in public universities in Ghana?
- iv. How are the available Internally Generated Revenue (IGR) spent in public universities in Ghana?
- v. How do the IGR strategies affect delivery of the core mandate of public universities in Ghana?

9.2 Experiences and Perceptions of Staff and Students with State Subvention Decline in the Universities

9.2.1 Perceptions on State Subvention Decline

Academic heads who were some of the respondents in the study indicated that the government appreciates the relevance of university education in socio-economic development in Ghana. The Constitution of Ghana confirms the responsibility of the state to provide free education at all levels. However, poor economic growth and low funds-inflows coupled with competing demands for equally important social goods and infrastructural development have necessitated subvention cuts to the universities and the reality is that state funding is insufficient to support free higher education in public universities and the higher education sector needs diverse funding sources to survive. As there is the general belief in Ghana that people with university degree(s) have good prospects of securing employment to enjoy middle-class lives, parents are willing to

contribute to the cost of their wards' university education. Government should strengthen costsharing in university education while basic education is fully sponsored by the state to train people in literacy and numeracy which promotes productivity in the agriculture sector to ensure continuous food production. The finding is in line with Scott (2018) and Statistics South Africa's (2011) assertion that possession of a university degree enhances the opportunity of securing better employment for a promising middle-class life and the beneficiaries are therefore willing to contribute to the cost of their university education. Academic heads, accounting professionals and student leaders (respondents) accept the new funding regime and expect the universities to explore other sources of funding to supplement government subvention to fund their core mandate delivery. The funding regime with state subvention payments will maintain the publicsector status of the universities, instead of the universities having to operate as private commercial entities which would deprive a number of prospective students from poor family backgrounds access to university education.

9.2.2 Measures to Manage the Funding Decline and its Effects in the Universities

The universities have designed consultancy services policies where faculty staff engage in consultancy services and pay a portion of their fees for the use of university resources to their university to improve upon its funding. Some projects make provision for infrastructure and this improves the academic infrastructure of the host university. However, the university management is not aware of some faculty staff's engagement in these consultancy services, although some universities have a consultancy coordinating office where all grant proposal applications should be submitted but some faculty staff are not committed to this arrangement. This means some staff use the university facilities without honoring their financial obligations to the university. These individuals deny the universities access to academic infrastructure that some of the projects make provision for, to provide in the host institutions. The justification for refusing to involve the universities in their consultancy services is that the university management exploit staff labor to access funding to manage its core mandate of teaching, research and community engagement without corresponding direct benefits to staff. Again, some faculty staff are not well equipped in grant proposal writing skills and the universities are also not investing in this area by training their faculty staff. Ironically, the universities' management

do not have effective systems in place to track consultancy services/research their staff undertake and do not adequately motivate their staff to voluntarily declare projects won.

Further, the universities' management engagement in commercial activities creates situations where a group of staff may find their routine roles (teaching) are changed without much consultation. The commercial activities in the universities create extra workloads for most staff without substantial direct benefits which demotivates and adversely affects staff work output. Conflict emerges if staff requests for teaching and learning materials are denied but university management decides to procure different items for different sections of staff. As staff express their dissatisfaction with their conditions of service, employment in public universities has become unattractive to some quality professionals whose services would be very useful to the universities. These professionals prefer temporary engagement or contracts at higher cost to the universities. Such costs are not absorbed by the government in the payment of workman's compensation and IGR must be mobilized to pay all such expenditures, with a university spending as much as US\$1.8m in 2017 on part-time staff.

Though staff are burdened with heavy workloads there are often delays in payment of workman's compensation and other legitimate demands of staff, and management is accused of being insensitive to staff welfare and this lowers staff morale and adversely affects productivity. The state funding cuts compel the universities to reduce their annual projected programs in line with their fiscal capability, compounded by their inability to employ new staff to expand academic programs which further reduce annual productivity. Most universities are therefore saddled with debt and interest servicing for loans and overdrafts from banks to kick-start program implementation as the release of state funding delays particularly payment of workman's compensation. The consequences have been that the universities are unable to effectively manage their debt portfolios with repercussions for their corporate image and this forces the institutions in further search of supplementary funding; often shifting the financial burden onto students to balance their fiscal accounts.

9.2.3 Implications of Subvention Decline on Access and Learning in the Universities

Many university students are fully funded by their parents and do not patronize the SLTF for fear of increasing debt payment after graduation. Academically deserving prospective students from

poor family backgrounds are often unable to access university education due to the costs involved. Those from poor family backgrounds who can access university education sometimes need additional years to complete a program and graduate due to their inability to pay their fees to register and thus not being able to write end-of-semester examinations. This affects their professional career development as they find themselves behind their cohort year groups from rich families. The state funding cuts exacerbate the plight of students from poor families as the universities often shift their fiscal imbalances to the students in the form of cost-sharing and AFUF payment. Prospective Ghanaian university students from poor family backgrounds cannot access university education without financial support while those from average income families need to excel in the high school examinations to compete successfully for access to the popular university academic programs that are non-fee-paying.

The universities' management and student leaders make efforts to solicit funds from donors to financially support the needy students, but the initiative has been insufficient to cover most students, with prospective students from poor families outside the universities not covered by such a facility. Though some universities make special admission offers to academically bright students from the low grade high schools which are predominantly patronized by children from poor family backgrounds, there exists a very weak link between public universities and high school education institutions in Ghana. This makes it difficult to identify bright students in the low grade high schools who would easily qualify for entry into public universities when the opportunity is offered.

9.3 Funding Challenges and Opportunities in the Universities

The funding situation in public universities is beset with both challenges and opportunities which are exploited by university management to manage their funding gap and the study findings are indicated below.

9.3.1 Funding Challenges

a. Impact of State Regulatory Policies on IGR Mobilization

Funding challenges in the universities go beyond state subvention cuts as government's policies regulate how much the universities should charge students as AFUF per year irrespective of the

funding needs of the universities; and the state does not provide for the extra resources needed. Government policy directives and restrictions on levels of fees charged and how to charge compromise the autonomy of public universities and limits their capacity to mobilize adequate IGR to implement their planned annual programs (Teferra 2013). Further, government has issued directives that group the universities among the state revenue agencies. The government therefore expect a percentage of the universities IGR to be paid into state central accounts to finance government core business instead of the universities mobilizing funds out of necessity to finance their core mandate due to government inability to financially support it adequately. Such government and labor unions in the universities. This threatens the conducive environment required for sound academic work with labor union agitations, in some cases leading to industrial action which distorts the academic calendar and further reduces productivity. The findings further revealed that major government decisions that affect public universities are made without proper consultation with the stakeholders within the universities to assess the ramifications of such decisions on productivity and quality of delivery.

b. Schedule of State Subvention Releases

The universities encounter undue delays in the release of the inadequate government financial support, including payment of workman's compensation. The aftermath of this delay has meant that university managements have to access bank overdrafts from commercial banks at high interest rates, especially to settle workman's compensation to maintain industrial harmony for smooth academic work. However, government does not absorb the interest on the loans payable to the banks which worsens the financial position of the universities and IGR is mobilized to manage the situation. The state funding decline to the universities has two features: inadequacy and untimeliness in the release of funds (Manuh et al. 2007). The universities reprioritize for consideration, those projects of which the funding source fails to release the required resources or the program life-span is exhausted while the program is on-going. Among other measures, some projects in resource-scarce institutions with infrastructural deficits may not be a good option.

9.3.2 Funding Opportunities in the Universities

a. Access to State Subvention

Universities make efforts to explore all available sources of resources to improve upon their funding, including state subvention, despite the associated challenges. Accessing state subvention enable the universities to keep student fees at manageable levels so that children from poor family backgrounds can access university education. Again, respondents noted that subvention withdrawal is most likely to attract student discontent and strike action with unavoidable destruction of property and human lives. Johnstone (2006) has posited that the main chunk of public universities' financial requirements should be provided by the state. The reported funding-gap in a university (2011 - 54.7%; 2012 - 66.6%; 2014 - 57.9%; 2016 - 60.6%; 2017 - 61.2%) after accessing state subvention is a clear indication that the universities are currently not ready to be self-financing.

b. Exploring Varied Sources to Improve upon IGR

The universities are currently generating 71.9 percent of their annual funding requirements and efforts need to be made to expand and explore additional sources. As explained by a university management interview respondent, the universities have the professors and lecturers as good resource-inputs to explore and access adequate funds from their core mandate of teaching, research and community engagement. Fortunately, the major stakeholders in university education including student leaders approve of cost-sharing as the way forward for funding public universities. Various sources of funding were identified which include: local/foreign fee-paying programs, consultancy services, staff and student residential accommodation and others. Importantly, there are prospective students from rich family backgrounds who are ready to pay full fees for university education and who seek quality service, efficiency and value for money from the universities (Devarajan et al. 2011).

The study revealed the availability of different professionals with diverse expertise in the universities that could be explored to improve upon their IGR efforts. The universities should, in their efforts to improve upon IGR mobilization in public universities, adopt diverse means to explore available opportunities for improved IGR to achieve the delivery of their core mandate of teaching, research and community engagement. The methods as indicated in the research

findings are explained below. The universities and their surrounding communities constitute already market for the products of the universities that could be explored for both traditional and non-traditional IGR ventures (Teferra 2013; Mamdani 2009). A vital funding source which is virtually non-existent in public universities in Ghana is endowment funds with the potential of yielding huge sums of monies in the form of interest earning as happens in universities in advanced economies, as one finance director interview respondent explained. This has the potential for increasing the competitiveness of universities and helping attract quality academic staff with the required expertise as well as helping to enroll academically superior students from poor family backgrounds and support them financially.

9.4 Strategies for IGR Mobilization in the Universities

In their efforts to improve upon IGR mobilization, public universities adopt diverse means to explore available opportunities for improved IGR to achieve the delivery of their core mandate of teaching, research and community engagement. The methods as indicated in the research findings are explained below.

9.4.1 Engagement in Academic and Non-Academic Ventures

The universities explore both traditional and non-traditional sources for IGR, with most academic heads opting for traditional sources while the accounting professionals and student leaders stressed both traditional and non-traditional sources of IGR. The non-traditional sources (non-academic) identified included: estate development beyond student hostels, hospitality management, financial services, waste management, laundry services, commercial energy production such as solar and biogas, commercial farming and others. The explanation for non-traditional ventures beyond accessing IGR, would offer better exposure to industry and enhance the corporate image of the universities. Again, staff and students would have hands-on exposure to improve the marketability of the academic programs. The national student leader interview respondent mentioned the problem of lecturers without on-the-job practical experience to pass on to their students which is a major factor in graduate unemployment as students graduate from the universities with only theoretical knowledge without the practical exposure required by employers.

The universities design and mount market-oriented academic programs to attract their studentsclientele who have the funds to buy such products. Most of these academic programs are implemented by the "dual-track" system where parallel academic programs are mounted on a fee-paying basis (Johnstone 2006). These market-oriented academic programs have become so attractive to the student clientele that some universities mount dual-mode programs on a 50:50 percent basis for regular and fee-paying respectively. A labor union interview respondent explained that the student clientele is willing to enroll and pay fees for attractive academic programs that would secure them good employment with better conditions of service. Awortwi (2008) has indicated that the Makerere University has 70 percent of its student population in such academic fee-paying programs. However, efforts to attract foreign students have not been successful in the public universities as the private universities have adopted measures such as fee cuts and watering down of academic standards to attract the international students and nudge public universities out of the market, university management interview respondents explained. Currently, the private universities enroll 88.9 percent of foreign students in Ghana (NAB 2015), though most of these private universities are being mentored by the public universities with the latter issuing their certificates to the graduates of the former. The universities further enter into research cooperation with external donors as a strategy to mobilize revenue to improve upon their funding. Research output is therefore not very useful in solving the challenges of the communities around the universities and the communities do not feel the impact of the universities in resolving their challenges that should warrant state financial support.

9.4.2 Effective and Efficient Management of Available IGR

The universities make efforts at transparent management of available resources to earn them public trust and confidence to attract donors as well as students and the public support in patronizing university products ungrudgingly. Staff survey respondents (academic heads and accounting professionals) constituting an average of 64.4 percent, confirmed that there is transparency in the use of funds in the universities while 91 percent of student leaders either indicated no knowledge of transparency or that there was no transparency in funds use in the universities. This implies a section of staff in the universities and most student leaders do not have trust in the transparent managing of funds in the universities and this may account for student discontent and destruction of university properties when there is upward adjustment of

fees in the universities. A major means for improving IGR mobilization is the adoption of efficient management of available funds. Respondents indicated that the universities make efforts to operate within the financial resources available and to minimize budget overruns. Departments and spending officers are giving monthly expenditure returns to educate and direct them about funds spent on specific expenditure items and the limits they could spend to for the remaining fiscal year.

However, some universities overspend their projected revenue as indicated by a labor union leader interview respondent (key member of the finance staff) and he said that his university records between 3 to 5 percent budget deficit annually. On how the budget deficit is financed, the arrears which are in the form of debts to suppliers, contractors and others are often brought forward in the subsequent budget design which becomes debt overhang, as 43.8% of respondents explained. Ironically, a section of respondents constituting 50% indicated that the debt overhang is not incorporated into the new budget design, but debtors are paid when funds are available. A university management interview respondent indicated that the faculty is not interested in efficient use of funds and that expenditures are made without emphasis on value for money as focusing on economics of expenses would compromise on quality of output. The non-prudent use of funds in some universities was re-echoed by a labor union leader interview respondent who indicated that some academic heads are not interested in prudent use of resources and are not ready for advice on funds use.

Further, some universities adopt centralized financial management where sections and cost center units are issued with funds adequate to manage their sections and all funds not immediately in use are invested for returns, no fund remains idle. A finance director interview respondent indicated that centralized financial management has enabled his university to effectively invest funds not immediately in use and that the returns have helped construct physical infrastructure to boost the stock of academic facilities in his university. The centralized financial management ensures better management (Mayanja 2008; Dressel 1981). Though investing all idle funds in some universities is generating additional resources to improve upon their funding, a government institution interview respondent (Ministry of Finance) indicated that it is against statutory financial management policy to invest government funds for interest in

areas such as treasury bills and fixed deposits. Government therefore makes an effort to collect such idle funds back from the universities through the capping policies which generates misunderstanding between government and stakeholders within the universities.

9.4.3 Staff Motivation for Successful IGR Involvement

Staff motivation for successful engagement in IGR mobilization is another method adopted to enhance funding in the universities. Most academic heads' respondents indicated that their successful engagement in consultancy services enhanced their professional progression when the consultancy reports are published as required by the university standards. It was however revealed that academic heads involved in too much teaching for the purposes of mobilizing IGR in the universities are unable to publish which adversely affects their professional progression in the universities. However, staff respondents generally confirmed that improved IGR enhanced general conditions of service in the universities in such areas as improved sponsorship to attend conferences/seminars and improved research facilities. Invariably, without motivation, staff would resist IGR operations with the justification that it constitutes extra work and should be rewarded appropriately (McInnis 2001).

9.4.4 The Use of Effective Logistics Support

Design and use of IGR strategic policy documents which define the goals, objectives and target setting is essential to direct, supervise and enhance IGR mobilization. Universities with the policy document in place (40.6%) to guide their IGR operations confirmed that the strategic document has been very useful in increasing IGR and improving the cash flow of their universities. Again, these documents usually have well-defined motivation packages for staff involved in the mobilization activities. However, more than half of the universities (59.4%) do not have such a policy document to ensure economic viability of their IGR mobilization operation. This makes the impact of subvention decline severe and such universities encounter cash flow challenges which impact negatively on the effective delivery of their mandate.

The availability of a reliable database to ensure effective budget design and implementation is another logistical support mechanism required in the universities to enhance IGR mobilization. Most universities (65.6%) have such a database in place, with a considerable number of the universities (34.3%) lacking this vital database to guide their annual fiscal management. Unguided fiscal management causes distortions in the universities' fiscal policy which results in government interfering in the affairs of the universities. The unavailability of a reliable database and IGR policy blue-print in some universities accounts for budget implementation distortions, fiscal indiscipline and a wide funding gap as espoused by Nganga (2016), Odita and Bello (2015) and Yigezu (2013).

Other strategies identified as being relevant to improve IGR mobilization activities in the universities are the establishment of IGR coordination centers and the availability of fundraising experts. Ironically, most universities (62.5%) do not have the IGR coordination centers and do not appreciate its relevance. This was confirmed by a finance director interview respondent that his university does not have a specific office to coordinate IGR mobilization. Further, more than half of respondents (59.4%) accepted the usefulness of fundraising experts to improve IGR mobilization but a larger percentage of the universities (65.6%) do not have the experts in place to facilitate their IGR operations. An important asset to improving IGR mobilization in the universities is a lack of corruption and most respondents (53.1%) do not observe any corrupt practices with IGR management. However, the number (46.9%) who perceived the IGR management to be corrupt is substantial and requires management attention to correct the impression.

9.5 IGR Expenditure Patterns in the Universities

How public universities spend IGR funds on programs and projects was the focus of research question four and the major findings are summarized hereunder.

9.5.1 Patterns of IGR Expenditure in the Universities

The universities spend IGR on administrative costs such as purchasing teaching and learning materials, office facilities/equipment, payment of external assessment costs, managing student practical academic work, office furnishings and stocking libraries, among other expenses. Further, the IGR subsidizes the cost of academic programs that are not popular and enroll few students. Such programs are maintained and mounted annually with the funding support from IGR. Further, the accounting professionals who were respondents indicated a minimum of 30 percent of IGR is spent to provide physical infrastructure and academic equipment in the

universities. Physical projects constructed with IGR funds since 2010 include ICT infrastructure, lecture theatres, laboratory equipment, health infrastructure, staff and student offices, banking infrastructure and others.

9.5.2 The Impact of IGR Support for Academic Infrastructure

Most respondents (71.9%) indicated that the IGR projects have raised the corporate image of the universities by making available expanded infrastructure for use by both staff and students, enhanced beautification of the universities campuses, improved health facilities which have contributed to expanding universities enrollment and improved the work attitude of staff and students in general. Respondents explained that there are inadequate incentive packages for staff who successfully engage in IGR mobilization in the universities as most of the incentive packages have been withdrawn to make more funds available for academic activities in lieu of state subvention decline. A section of the respondents was not satisfied with the expenditure pattern of their institutions in providing infrastructure for the various interest groups in the universities. While the accounting professionals perceived that the expenditure pattern favors the provision of facilities to enhance the welfare of academic staff, academic labor union leaders complain that academic staff are instrumental in IGR mobilization but IGR support for infrastructure is mostly for student residential accommodation while most of their members do not have campus residential accommodation.

9.5.3 State Policy Differences with Universities Use of IGR

There is misunderstanding between the universities and government on how public universities generate more IGR than what they project in their annual budgets and invest surpluses in commercial banks who in turn use such funds to purchase government securities for interest. Government funds are therefore used to secure interest from government which is unacceptable in the financial management policies of Ghana, as explained by government institution interview respondent. However, the universities perceive such ventures as good financial practices that yield interest which is utilized in infrastructural development to improve upon their stock of academic facilities government is unable to provide. Such investment practices are found in universities in developed economies in Europe and USA who utilize their surplus budget for

endowment funds in addition to other sources to generate further interest to boost the fiscal health of their institutions, without any encumbrances from government (Baum, Hill, and Schartz 2018).

9.6 Effects of IGR Mobilization on University Mandate Delivery

This was the fifth and last research question of the study which dealt with the positive and negative impacts of the vigorous IGR activities on the core mandate delivery in public universities involved in the study. The findings are summarized below.

9.6.1 Relevance of IGR on Faculty Capacity Development

The faculty staff in the universities require a doctoral degree to be able to teach and without which their professional progression would terminate at senior lecturer level and its equivalent grades. Departments involved in the study, indicated that 64.5 percent of their academic staff have a PhD degree while 35.5 percent have a master's degree. The IGR mobilized in the study area has been instrumental in sponsoring some faculty for PhD programs to improve upon the human resource capacity of the universities. Though the award for staff to pursue terminal degrees is often inadequate and the awardees must access extra funding, it is expected that there would be improvement in such funding should IGR mobilization improve. The IGR financial support for PhD programs has not only helped to develop the human resource capacity but has been instrumental in providing motivation for staff to improve upon their productivity. Again, the human capacity training support with IGR funds is extended to cover attendance at both international and local conferences, workshops and seminars with 44 percent of departments having sponsored attendance for at least 21 staff each year since 2010.

9.6.2 Contribution of IGR to Office Facilities and Equipment and Research

The role of IGR in the provision of furnished offices for staff and students has been phenomenal because state funding support only covers workman's compensation. Though some academic head respondents (27%) could not tell how IGR had assisted in providing furnished offices, 49.3 percent of respondents confirmed the role of IGR in furnishing offices for staff. IGR support for the faculty research agenda is small as 4 percent of respondents indicated that at most 40 percent of IGR is spent on research, compared with 13.3 percent of respondents who explained that a

minimum of 40 percent of their department IGR had been spent on office refurbishing since 2010. The effects of low sponsorship of IGR for research has been that faculty are generating donor-driven research knowledge which is not always useful to the local communities. Thus, universities serving as a public good should produce academic knowledge useful to their surrounding communities and not to be commercialized for financiers who can afford to pay and monopolize research output (Bok cited in Hejwosz 2010).

9.6.3 IGR Drive and Faculty Workload

The extensive IGR drive has expanded the workload of staff in the universities as confirmed by 58.7 percent of academic head respondents. The expanded workload is due to increases in student enrollment with some faculty staff teaching on both weekdays and weekends while undertaking research at the same time. Faculty staff find it difficult to organize class exercises and cannot set critical thinking examination questions which deprive students of critical thinking training, while other academic staff are deeply involved in consultancy services at the expense of quality teaching. The consequences have been poor quality output as students are not trained to be critical thinkers because faculty use MCQs as the main means of assessment for students with the marking of the examinations done by MCQ machine readers. University graduates are therefore trained to be vocationally-minded and could easily be manipulated as their ability to interrogate and investigate issues is minimal.

9.6.4 Subvention Decline, IGR Drive and Universities' Mandate Delivery

The state funding decline of public universities in addition to inflation and the reduced value of the Ghanaian currency (cedi), has negatively affected the real and nominal value of workman's compensation and the general conditions of service for staff. The consequences have been demoralized staff with low productivity and poor-quality delivery which affect the corporate image of public universities both locally and internationally. Commenting on the state funding decline effects on the mandate delivery of universities, Johnstone (2006); and *Sawyer*r (2000) have indicated that it has resulted in poor quality delivery of the mandate of public universities.

The increasing IGR drive resulting from state subvention decline force the universities to mount any market-oriented programs attractive to students and students who are willing to pay for such programs. Enrollment in academic programs has now become competitive among universities who make efforts to attract students for fees. The outcome has been the over-subscription of arts and humanities programs contrary to the national policy of enrolling more into sciences; the national policy of 60:40 enrollment for sciences and arts/humanities is currently 60:40 for arts/humanities and sciences, as explained by the Ministry of Education interview respondent. Ironically, the NCTE that should coordinate and monitor tertiary education institutions to ensure compliance with the national policy on student enrollment is not mandated to sanction noncompliance in terms of the NCTE ACT 454, 1993 that established it (NCTE 1993).

An important finding is the absence of specialization in the public universities. Though each university was established with a specific mandate of academic areas of specialization, the quest for IGR has collapsed these areas of specialization with all competing for students for popular programs students are ready to pay for. A university management interview respondent placed it in perspective, "my university decided to focus on our assigned core mandate just to realize that other universities are engaged in programs far different from their assigned mandate, and in some cases, deeper into these new areas than what the state assigned them. We have also decided, from 2017 academic year to mount programs which are not part of our mandate to raise IGR". In all instances, the regulatory body, NCTE is helpless as the law that established it does not equip it to sanction noncompliance.

9.6.5 The Impact of IGR Mobilization on Access and Learning in the Universities

Student leader respondents indicated that the universities are exploring many sources of IGR to complement the state subvention decline, with student fees being the major source of IGR. The universities push their funding-gap burden onto students as fees payment as reported by 85.4 percent of student respondents. The national students' president interview respondent explained that the increasing fees deprive prospective students from poor family backgrounds access to university education while some continuing students defer their programs due to their inability to pay fees. The student leaders were not satisfied with the efficient use of funds in the universities, with 86.5 percent of respondents dissatisfied with how university management use IGR funds. Students were however against payment of full fees in the universities and they

access government loans to pursue their university education but accept the necessity of costsharing.

Student leader respondents expressed that IGR mobilization is making available improved academic infrastructure for effective teaching and learning in the universities. Again, improved IGR provides motivation packages for students to achieve academic excellence. Further, the student leader respondents indicated that IGR efforts in the universities have made many academic programs available and given students the opportunity to select programs of their choice, and also has improved the commitment of lecturers to deliver their lectures professionally.

9.7 Recommendations

9.7.1 Experiences and Perceptions of Staff and Students in State Subvention Decline in the Universities

a. Managing University Curricula for Improved Post-Graduation Employment

The belief that the acquisition of a university degree enhances the opportunity of good employment that guarantees a middle-class life has prompted university education massification with parents ready to contribute for the cost of their children's university education. The number of university education institutions in Ghana has therefore increased from three (3) in 1991 to 72 in 2015 (9 public universities and 63 private university colleges); with the total number of students increasing from 15 365 in 1993/94 to 300,000 in 2015 (Duwiejua 2015; NCTE 2014). However, the increased enrollment has not been accompanied by national relevance of the academic programs (Bingab, Forson, and Baah-Ennum 2016). This has created graduate unemployment and defeated the aspirations of the increasing number of university graduates as most depend on government for employment; a responsibility the government cannot shoulder alone. The way forward would be for the universities to restructure their academic programs and train more graduates to be employers and not employees. The university education institutions should incorporate into their academic curricula, entrepreneurial training programs where industrialists and high-achieving self-employed individuals would be invited as adjunct professors to interact with students and inculcate in them entrepreneurial skills to make them independent employers after graduation. This would enhance higher education externalities to

society, which would call for government to reprioritize its expenditure and allocate adequate funding to the universities to restructure and manage their curricula effectively.

b. The Role of the State in Employment Creation

Government should play a facilitating role by equipping graduates to establish their personal enterprises to grow the Ghanaian economy. This will help minimize graduate unemployment and motivate parents to fully embrace cost-sharing in the universities if they are assured of their wards enjoying a middle-class life after graduation. Experience from countries such as Finland, Korea, India, Indonesia and other Asian countries indicates how these countries have managed to explore higher education to develop their economy by emphasizing high-quality, technically focused curricula, as well as science, mathematics, and information and communication technology programs (Bloom et al. 2006). This would mean that the Ministry of Education in Ghana should enforce its policy of 60:40 tertiary education enrollment for sciences and humanities respectively. Defaulting public universities should be resourced and the NCTE that coordinates tertiary education institutions in Ghana should be resourced and empowered to implement its mandate appropriately.

c. Remedial Actions for Improved Finding in the Universities

University management should lobby government through the Parliamentary Select Committee on Education for quarterly release of workman's compensation from government and the release should be at the beginning of every quarter. This would ensure that if government could not increase its funding, payment of workman's compensation to the universities would be ready at the end of every month and save the universities from seeking bank overdrafts and the accruing interest payments.

Universities should allocate points for grants won by staff with the universities' share indicated and postgraduate supervision undertaken in the professional progression assessment of staff. The points should be allocated according to the magnitude of funds paid to the university. In the case of postgraduate supervision, the order of points should be downward from PhD to the smallest postgraduate program with PhDs attracting the highest points. Staff who indicate awards won but pay nothing to the university should be investigated further and sanctioned if found culpable. The sanction should include refund of the defaulted amount with interest and any additional punitive measures that will be enough of a deterrent to compel staff to be honest.

The university management should make efforts to equip all interested staff with grant proposal writing skills to increase staff participation in consultancy work. Again, there should be an annual award program depending on the capacity of the university, to reward a minimum of 10 staff who contribute to the university in terms of grants won and postgraduates supervised and graduated. These packages should be well documented with the university community well sensitized to accept and appreciate the packages and work for its success.

d. Role of University Management in Improving Access for University Education

The increasing search for IGR and resultant increases in AFUF and fee-paying programs is a real challenge to students and prospective applicants from poor family backgrounds. Universities should look beyond student fees and diversify their IGR sources to fund their annual programs. The university management and student leaders' efforts at soliciting financial support from donors to support needy students should be encouraged and intensified. Students from rich families should be encouraged and motivated to donate a minimum of US\$11.00 (GHC50.00) per annum into such funds. The different religious groups on campuses should be opened and documented to show the universities' appreciation. University management should consider offering part-time paid jobs to poor students to support them financially. Again, access to the financial support facility in the universities should not be restricted to only continuing students but should be made flexible for prospective applicants who have financial challenges and may not even wish to apply for admission.

As practiced in other countries, payment of fees should not be tied to student registration and writing of end-of-semester examinations in the universities to enable all students to register successfully. Students indebted to the universities after graduation should not be issued with their certificates until the debt is paid. The student body should be well sensitized to and educated about the student registration processes and conditions in order to prevent deregistration of any student. Students indebted to the universities should be offered part-time jobs and could use their weekly or monthly remuneration to defray their indebtedness.

The weak relationship between public universities and high school institutions makes it difficult for universities to expose their academic programs and prospects to high school students. Again, identifying academically bright students from poor families especially in the under-privileged rural high schools, and offering them admission through the special-quota system in some public universities is difficult. On the way forward, public universities should target the rural high schools in Ghana and mount two or three-day programs of exhibitions at schools to interact and sell the universities' programs. The final day should include a symposium with the high school teachers and management in attendance and including all students. The universities should draw up an action plan for this and ensure that the plan is implemented. At the end of the symposium the contact addresses of the best final year students who qualify for various academic programs should be collated and these students should be advised to apply to the universities. Should such students do well after the release of the high school examinations the special admissions quota would be easy to administer.

9.8 Funding Challenges and Opportunities in Public Universities in Ghana

9.8.1 Funding Challenges

a. Managing Effects of State Regulatory Policies

Government's non-consultation with the various stakeholder groups in public universities on major decisions that affect the running of public universities is a recipe for industrial conflict and labor unrest which often leads to avoidable staff demonstrations and distortions in the academic calendar. Soliciting the views and inputs of the different labor unions on major decisions that affect public universities would enrich and enhance implementation of such policies. Such consultations would further avoid loss of work-hours and reduced productivity associated with staff demonstrations; in most cases, compelling government to drop unfavorable policies. Government should, through the NCTE, mandate the chief executives of public universities to dialogue with the labor unions on major government policies and send a written report to government on the inputs of the unions before major decisions are implemented.

Government's categorizing of public universities as part of their revenue agencies in Ghana to mobilize revenue partly for government to implement its policies, is unacceptable and should not be encouraged if industrial harmony and autonomy is to be maintained in the university institutions. Obviously, IGR generated in public universities is public funds as confirmed by the visitation team in the Makerere University (Mamdani (2009) and Mayanja (2008), but public universities are compelled by state funding cuts to intensify IGR mobilization to complement state subvention. Government should insist on accurate annual revenue and expenditure budgeting and efficient utilization of IGR mobilized for quality service delivery in the universities. Instead of requesting a percentage of universities' IGR to be paid to government, a specified percentage of the IGR should be allocated to improve upon physical infrastructural projects such as lecture halls, laboratory halls and equipment, road networks, staff and student accommodation and others. This would improve the infrastructure gap, improve academic quality and staff and student welfare. Funding responsibilities in public universities in South Africa largely lies with government, whose funding amounts to 50 percent and depending on the ability of the universities to mobilize funding, the government allocation may be less or more than the 50 percent; government does not request any mobilized IGR to be paid into state accounts (Ministry of Education 2004).

9.8.2 Funding Opportunities in the Universities

a. Negotiating for Improved Public Funding

The revelation that IGR constitutes 71.9 percent of the revenue of public universities involved in the study implies flouting of the "Akosombo Accord" in 1987 because government should provide 70 percent of the financial requirements of public universities in terms of that accord (Manuh et al. 2007). Public universities should negotiate for block funding of 1.0 percent of GDP for research and postgraduate studies, in line with the recommendation of the African Union for its member-countries. Ghana currently allocate 0.3 percent of GDP for research (Yankah 2015). The allocation should be channelled mainly into scientific and postgraduate research to enhance and improve knowledge generation, development and innovation for socio-economic development. This could attract quality academic staff into public universities and make them competitive at the local and international levels.

b. Exploring and Strengthening IGR Sources

Staff and student experiences indicate that university management should explore traditional and non-traditional means to raise IGR for their business. This has expanded staff workloads without corresponding direct benefits which lowers the morale of staff and affects their productivity.

The university management should separate the traditional sources where they have comparative advantage from the non-traditional sources. A consortium of training-of-trainers should be constituted where university staff with expertise in grant proposal writing and fund-raising would be sponsored for further training to enhance their expertise and skills and reassigned with a well-furnished secretariat. Each section of the consortium would focus on their area of expertise, for instance: grant proposal writing, fund-raising, financial management training, and others and train the university staff in this expertise at a highly subsidized fee. The same services should be extended to the public both local and international for commercial fees and should be supported with extensive advertisement to publicize the packages available to enhance patronage. This consortium in addition to equipping university staff with the needed expertise in grant proposal writing skills would be raising IGR for the universities through the commercialization of the training programs to the public and private sectors such as government institutions, NGOs, private business organizations and others.

The universities should engage in dialogue with government to be allocated a minimum of 50 percent of the national annual capacity development training programs to train public servants and other state workers for a fee. Again, all national major consultancies and projects awarded to international bodies should partner with the university education institutions to ensure that there is transfer of technology-know-how to the universities, in addition to the fees payable to the universities to improve upon their funding. The technological know-how gained by the faculty would then be passed on to the students to prepare them for life after graduation. Bidding documents should be designed to incorporate a clause mandating all international bidders to have a local university institution as a partner.

The consortium secretariat should be given the additional responsibility of raising funds to create endowment funds for the universities. An important source of this fund-raising could come from the university alumni, corporate organizations both local and international and other well-wishers. The donations from alumni should not necessarily be lump sums but could be 0.1 or 0.5 percent of their monthly basic salary for at least two years to maximum of five years to motivate many contributors. The contribution should not be for physical academic infrastructure but purposely for endowment for future benefits. Returns in the form of annual interest would boost

the IGR in the universities and help fund projects, or financially support needy students or both, depending on needs.

9.9 Strategies for Improving IGR Mobilization

The processes for improving IGR generation require designing action plans and indicating required resources to achieve the set objectives in the short, medium and long-run as espoused by Akinsulire (2008). The major strategies public universities should adopt or strengthen for GR mobilization are enumerated below.

9.9.1 Consolidating the Non-Traditional IGR Sources

The non-traditional IGR ventures should be registered as limited liability companies with boards of directors drawn from well experienced business people outside the university but having a representative from the university to serve on the boards. The finance committees of the university should play a liaison role between the companies and the universities. Staff and operations of the companies should be separated from the main stream university operations and paid from the proceeds of the companies, but highly connected in terms of patronizing the training programs of the university for a commercial fee. The universities should also procure all their supplies from the companies to offer a ready market. Areas of operations should include but not be limited to, commercial farming for both local and international markets, estate and hospitality management and others.

9.9.2 Implementation of Sound Financial Management Practices

Universities should demonstrate transparency, accountability and efficiency and fiscal discipline in their use of IGR and management of other resources at their deposal. This would facilitate public support and attract donors as well as dissuade the government from undue interference in the management of the universities. There should be continuous training and building of capacity in management and their vote controllers' capacity about sound financial management, effective budget preparation, and implementation and effective supervision to minimize distortions in the annual budget. Prudent use of funds, fiscal discipline, effective use of internal monitoring systems such as internal audit services, outsourcing of some services such as cleaning, artisanry works, catering services and others is vital. Internal and external perception of corruption in the universities should be reduced through publicizing university accounts in the national dailies every year to explain clearly how funds received were spent. This would minimize rumour mills from staff and students which are easily accepted by the surrounding communities and the nation at large, and act as a disincentive to prospective public-private-partnership (PPP) investors and other donors.

The need to design systems and policy blue-prints for implementation of IGR mobilization is imperative. The IGR policy blue-print should be supported with a reliable database for effective and efficient planning and target setting to ensure realistic fiscal policy implementation. The policy blue-print should specify the set goals and objectives, potential, opportunities, challenges, constraints, resource implications, and the time frames to achieve the set objectives in line with the recommendations of Odita and Bello (2015). The active involvement of university top management (Vice Chancellor, Pro-Vice Chancellor, and the Registrar) in policy-document design, implementation and monitoring is vital for achieving the set objectives.

9.9.3 Designing and Mounting Market-Oriented Academic Programs

The "dual-track" admission process where student enrollment is allocated on a 50:50 percent for regular and fee-paying respectively, for the popular university programs is unfair to prospective applicants from poor families who cannot afford the fee-paying packages, this promotes inequality and make the rich richer and should stop. This should be replaced with parallel programs to enroll applicants who can afford to pay fees for evening lectures, after equal opportunity has been applied to all applicants on the regular admissions platform. Staff who would be engaged to implement the parallel evening lectures should be well compensated after they have satisfied the maximum teaching load requirements for each faculty. Proceeds from these programs should be extensively utilized to construct student residential accommodation and lecture pavilions in the early stages of the programs to attract more students from far and near. Fortunately, there is a large student clientele to take advantage of the parallel program facility and the introduction of free high school education creates further opportunities to expand enrollment in the universities if academic infrastructure is available. Ghana should have doubled its university education intake of students to 300 000 in 2015 to produce the required manpower

to propel the country beyond the lower-middle income status (Duwiejua 2015). Total youth population in Ghana between the ages of 15 - 35 years was 9 123,427 in 2010 (Ghana Statistical Service 2013).

To attract a fair share of the foreign students, public universities should re-examine their cost structure to make their programs reasonably affordable and competitive. A reduced and affordable fee could attract many foreign students to the public universities and the high numbers could compensate for the reduced fees, especially with the revelation that employment opportunities for public university graduates is much better than their private university counterparts (University World News, April 2018). In as much as public universities should not compromise on academic quality to attract foreign students, the need for flexibility and improved student support services such as counselling, cultural adaptation and socialization programs should be arranged for the foreign students to enable them to adjust quickly in their new environment to enhance their academic performance.

Public universities should be strict with their mentoring role of the private universities/colleges and insist on academic quality and rich curricula before recommending students in private universities for graduation. Again, private universities that adopt unfair and poor academic practices to attract foreign students at the expense of academic quality should not be recommended to charter. Further, public universities that monitor and mentor these private universities should distinguish between the certificates for public and private universities to help employers and other users of these graduates

9.10 IGR Expenditure Patterns in the Universities

9.10.1 IGR Allocation for Academic Infrastructure

The percentage of IGR allocated to academic infrastructure should be progressively increased annually as improved infrastructure could improve student enrollment and increase IGR. Improving the academic infrastructural base would also serve as a motivator to other donors to financially support the universities. Again, the need to balance provision of academic infrastructure with residential accommodation for staff is also relevant to motivate staff to grow their commitment to their universities. An important resource base that could be explored to undertake such balanced infrastructure is public-private-partnerships (PPP). The conditions for the PPP should be acceptable to the private entrepreneurs who have the funds to invest, to motivate them, for in the long-run, the universities would stand to benefit.

As much as possible, public universities should minimize expenditures on goods and services with regular recurrent expenditure components which do not directly contribute to academic quality delivery. For instance, stocking the university administration, colleges and faculty/school offices with a fleet of vehicles which would require employing drivers, routine running and maintenance costs, and other related expenditures. Where the university does not intend to outsource such services, a pool of vehicles for use could be created and well-coordinated to effectively and efficiently service the entire university to minimize waste and ensure value for money.

9.10.2 Dialogue with Government on IGR Investments

Public universities must engage in dialogue with government on the efficient management of IGR to reduce the mutual suspicion and conflict of interest between the two bodies. Public universities should make their case clear that the investments in the commercial banks is a way of making extra revenue to bridge their funding-gap and that there are no idle funds that the universities invest. That the investments are all project funds which are managed in a manner that would accrue interest pending the commencement of the intended projects, the funds are allocated. Again, universities should convince government that the funds are invested in other investment portfolios and not government treasury bills.

As much as possible, the university management should minimize interest payments on loans and overdrafts contracted to kick-start projects government is expected to fund if government is not ready to reimburse the accrued interests. In respect of payment of workman's compensation with bank overdrafts and the accompanying interests, government assumes that the universities can manage this payment and thus it would continue to delay subvention releases, in some cases, for three months. There should be dialogue with various labor unions who would educate their constituent members on the causes of late or non-payment of workman's compensation and then the unions' action would be targeted at the government. The fear of becoming unpopular among the many universities workers would make government reprioritize its spending and release funds for early payment; should the earlier option of lobbying for bulk quarterly release of the workman's compensation grant not be approved by government.

9.11 Effects of IGR Mobilization on the Core Mandate Delivery in Public Universities

The IGR mobilization activities in public universities have positive and negative impacts on the core mandate delivery of public universities. The recommendations are designed to strengthen the positive effects while minimizing the negative impacts.

9.11.1 Human Resource Capacity Development and Improved Office Facilities

Training the human resource base of the universities is vital for achieving quality delivery of their mandate, in addition to motivating staff to improve upon their productivity. Universities should have linkages and memoranda of understanding (MOU) with other higher education institutions at the local and international levels to arrange for full-time and split-site PhD degree and other professional training programs for their staff to minimize the stress on their staff, especially, faculty staff who are compelled to have a PhD degree to have a secured professional progression. This would minimize the pressure on the use of IGR to partly or fully sponsor staff for further studies, and at the same time, train and improve upon the human resource capacity for improved quality delivery. Philanthropists and other donors could be motivated to adopt departments, schools, and even colleges for refurbishing and provision of facilities and equipment after which these facilities are named after the donor or recognized in a special way, such as awarding donor's honorary membership of the university with special rights which would cover their children as well.

9.11.2 Strengthening Institutional Research with Improved Local Relevance

Universities should make efforts to improve upon their linkage with local industries and private donors and lobby industry to fund their institutional research. This would mean the institutional research agenda should target the specific industry-related problems to ensure a win-win situation for both parties. Thus, postgraduate students should be assigned to the stakeholder industries to study the existing challenges and select their thesis topics from the identified challenges. On completion of the thesis, a well-organized forum to disseminate the findings and the way forward for the institutions should be held. There is the need to strengthen

institutionalization of faculty chairs where renowned academics are offered the opportunity to attract research funding for the universities and they should be motivated from the quantum of funds won. A well-furnished office should be made available for an appointed chair to motivate them to deliver.

9.11.3 Improving Academic Quality and Relevance

Ensuring the quality of graduates produced is crucial for enhanced productivity. Efforts to produce graduates with analytical and critical thinking skills should not be sacrificed for mass production of empty brains. Efforts should be made to reduce the lecturer- student ratio which is projected to be six times higher than the internationally accepted norms. For instance, the current lecturer-student ratio for business programs is 161:1 compared to the acceptable level of 27:1; and medicine 30:1 instead of 12:1 in 2015 (NCTE 2015 cited in Ntim 2016:166). The need to assign critical thinking assessment tasks would require that classes are broken down into manageable sizes even if it would mean having double stream classes, and more lecturers engaged to assist with teaching. The academic quality assurance section of universities should be well resourced to monitor, assess, and evaluate the various actors in their institutions, including ensuring the availability of teaching and learning materials, as well as academic infrastructure needed for effective teaching outcomes. Academic staff should be closely monitored to ensure effective use of their lecture hours and those who misuse or divert lecture hours for personal gains should be brought before specially constituted academic disciplinary committees and sanctioned when found culpable.

There is the need for the Ministry of Education to motivate and encourage larger proportions of students to pursue natural sciences, ICT, mathematics, and vocational academic programs at the basic and high school levels to feed the tertiary education institutions. Emphasis should be laid on technical and vocational education and training (TVET) and ensure that enough personnel are trained in the universities as resource personnel for the technical and vocational institutes as well as the high schools. Tutors in these areas should be given continuous teaching skills and special motivation packages for quality delivery. This would then extend to the universities in terms of their admission ratios in favor of the desired skills and expertise required for socio-economic development. Obviously, university education massification is relevant so long as the curricula is linked to the country's socio-economic developmental agenda and the children of the poor in

society have access. The NCTE should ensure that universities do not deviate from their core mandates for which they were established to ensure the needed specialized human resources are adequately trained for the various sectors of the economy to accelerate socio-economic development.

9.11.4 Motivating Staff for Improved Productivity

Government should reconsider the payment of professional/academic allowances to all staff of universities in any year when inflation and devalued currency affect the real value of their workman's compensation and the level of devalued income should be evaluated in relation to the United States dollar and any difference paid to all staff. This facility was in place in the mid-2000s until the single-spine salary policy was implemented, though the facility only covered senior members, academic and non-academic; this allowance should be incorporated into the conditions of service of all staff. This benefit would motivate and attract professionals and experts in the various academic fields into the universities for permanent appointments as well as retain them when appointed. Staff would also be motivated to improve their productivity and quality of output. Further, staff who excel in their field of operation should be given special recognition to motivate others to achieve quality and increased productivity.

9.11.5 Making University Education Accessible and Affordable

Cost-sharing is acceptable to student leaders, however, several prospective applicants cannot access university education because of the high cost involved and the poor family background of these prospective applicants as asserted by Nkadimeng (2014). The per capita income (per purchasing parity) in Ghana in 2015 was US\$3953, with 24.2 percent of the citizens earning US\$694.00 in the same year (WHRDR 2016). This implies that many citizens cannot access university education which cost between US\$2797.00 and US\$3586.00 per student per year in 2010 (Adu-Acheampong 2010).

Government should therefore identify the sector of the population earning US\$4000.00 or less per year and offer their children free education up to university (first degree) level. Funding for this category of students should include all university charges, residential accommodation, and monthly stipend. Children of families earning more than US\$4000 up to US\$7000 per year

should be offered interest-free income contingent loans and the quantum of loan should be adequate to pay all expenses at the university, including living expenses; the payable interest should be borne by government. Children of families earning more than US\$7000.00 per year should be offered income contingent loans with very low interest which is computed when the beneficiary has employment after graduation. Payment of the loans with or without interest should start after the beneficiary has an appointment on graduation. An effective database for implementing this funding scheme should be compiled and harmonized from the Ghana Statistical Services, National Health Insurance Scheme and biodata provided by the university applicants to ensure that awards are given to deserving applicants.

9.12 Implications for Policy and Practice

The main goal of the research was to delve into how the state funding decline of universities has caused university institutions to engage in extensive IGR mobilization to remain in business. The effects of the IGR mobilization on access to public universities, quality of delivery, as well as the products trained and the general impact on socio-economic development of the country were discussed. The study is vital for its focus on how adequately-funded higher education propels knowledge generation which is relevant for a country's socio-economic development.

The study revealed that the quest for university education among the increasing numbers of youth is motivated by the desire to get employment to enjoy a middle-class life style which is not tenable for graduates with basic education. The increasing demand made government increase the number of public universities from three (3) to nine (9) between 1991 and 2015, as well as involve the private sector in the provision of university education to improve upon access. However, government is unable to cope up with the funding requirements of the public universities and the increasing student enrollment with its increasing completion rate and associated graduate unemployment due to over-reliance on the formal sector for employment. Government has restricted its funding support to the payment of workman's compensation to the public universities, more so, as the relevance of the trained graduates to the development agenda of the country is questioned. This is the genesis of the extensive IGR mobilization activities in public universities geared towards closing their funding gap and exploiting the general idea of the youth and their parents that university education would guarantee employment and eradicate

poverty which makes parents accept cost-sharing in their children's university education. The findings of the research would be very useful to policy makers and other stakeholders of university education on how to fund a very relevant university education capable of training graduates with the relevant skills and expertise the nation requires to develop and become competitive globally. Certainly, training the graduates with the relevant skills and expertise needed in Ghana is highly tenable given that some Asian countries have achieved this which has helped them to develop their economies and become competitive globally (Bloom et al. 2006).

The study findings have exposed for university management the challenges and concerns of their staff which affect their productivity as well as the existing opportunities that could be accessed to improve upon funding in the era of dwindling public financial support inflows. Obviously, the universities as communities and their surrounding environments are a complete existing market that could be exploited to undertake both traditional and non-traditional commercial operations, taking advantage of public-private-partnership avenues to mobilize the required capital. The government is also enlightened on the consequences of its funding cuts on public universities as the latter embark on extensive IGR activities at the expense of quality delivery and equal access for the poor in society which is anti-egalitarian. Another important issue for government policy formulation consideration is the "academic-free-range" stance of public universities in their quest for IGR; the resultant effect of government's policy of funding cuts, resulting in non-specialization, over concentration on production of humanities graduates and their concomitant underemployment and unemployment.

The effects of the "academic-free-range" in public universities totally contravenes the policy directives of the Ministry of Education which insist on a 60:40 ratio enrollment for science related programs and humanities respectively, but the research revealed a ratio of 64 to 36 for humanities and sciences respectively. The NCTE which coordinates tertiary education institutions is unable to call the university institutions to order, first, as the required funding is not provided by the state, and second, the NCTE Act 454, 1993 that established the NCTE makes it an advisory body that cannot enforce its decisions; this would require policy intervention. The study highlights the relationship between public and private universities with regards to foreign student enrollment and the related quality challenges which require policy direction to protect the
corporate image of university institutions and tertiary education in Ghana in general. The need for adequate funding and how to mobilize the funding to the satisfaction of the key players for quality university education relevant to the developmental agenda of Ghana is raised in the study for the appropriate policy interventions.

9.13 Suggestions for Further Research

This research study focus has been on IGR mobilization efforts as a major complementary funding measure and its impact on public universities. Though many research studies about the funding of tertiary education in Ghana have been undertaken by different researchers at the masters and doctoral levels, not much has been done on IGR as a major funding facility in public universities in Ghana and this study tried to accomplish that. The study interrogated the possible causes of the state funding decline of universities in Ghana resulting in extensive IGR operations and the emerging issues worth further research include:

- Tackling graduate underemployment and unemployment: A critical assessment of the role of tertiary education reforms in linking academic curricula to the developmental agenda to make tertiary education relevant in Ghana
- Inadequate institutional capacity of public universities in Ghana to explore clear opportunities in consultancy services, endowment funds, fundraising activities, public-private-partnership ventures to improve upon their funding as it pertains to universities in developed economies
- Funding issues and how IGR mobilization activities in private universities impact on tertiary education delivery in Ghana. Though this study's focus was on public universities, the observation that private universities are a major competitor with public universities for foreign students in order to raise IGR, make it imperative to research funding systems and their impact on quality delivery; more so as graduates trained in the private universities complement those trained by public universities and both constitute a vital human resource base in Ghana
- Evaluating methodologies earmarked for research studies and the actual design applied to the field to identify any gaps and reasons and justification for the gaps if indicated.

Other issues and observations that emerged from the research study which would require critical examination are the following:

- A holistic evaluation and review of the ACTs that established the coordinating bodies of tertiary education in Ghana to equip and resource them to be relevant to modern tertiary education management. These include: NCTE-1993 (ACT 454); NAB-2007 (ACT 744); and NABPTEX-1994 (ACT 744)
- Evaluating and strengthening the role of GETFund in tertiary education funding in Ghana to minimize the infrastructure-gap
- Reviewing and resourcing the SLTF facility to make it relevant to the real needs of students
- Implementing and promoting the science, technology, ICT, and TVET education agenda at the basic education level to feed into the tertiary education system in Ghana.

9.14 Conclusion

The focus of this research study was to examine the role of IGR in public universities in Ghana in complementing the declining public subvention to enhance implementation of public universities' core mandate, and the impact of the IGR activities on public universities. To achieve the set goal, the study looked at:

- The experiences of staff and students about state funding in public universities
- Funding challenges and opportunities in the public universities
- Strategies adopted to manage the challenges and opportunities to improve upon funding
- How the available financial resources are utilized
- The effects of the extensive IGR operations on the mandate delivery of public universities and recommend the way forward for improving funding in public universities.

The study results confirmed that the state funding decline is not limited to expenditures on administration, investment, and services but affects workman's compensation payments in public universities as well. Public universities' management are compelled to utilize staff to engage in extensive IGR mobilization in addition to their regular teaching, research, and community engagement without corresponding direct benefits to them. The outcome has been demotivated

staff with reduced productivity, as well as the increasing cost of university education for students with the children of the poor being highly disadvantaged in terms of access.

An important observation of the study findings is the common phenomena where different governments at different times interfere with the IGR operations of the universities, to the extent of requesting for a percentage of IGR from public universities to be paid into government accounts for national use. The findings further revealed among others, that public universities do not have the institutional capacity to explore vital opportunities available to improve upon their IGR mobilization, including good financial management skills. The positive and negative effects of the extensive IGR operations were delved into and discussed, with many recommendations for the way forward indicated. Vital issues that emerged in the study for policy consideration included: university educated graduates' quest for employment opportunities mostly in the public sector which are insufficient resulting in unemployment, extensive IGR activities with its associated slide into non-specialization resulting in the 'academic-free-range' in the public universities, and others. Recommendations for further research focused on how to link tertiary education academic curricula to the developmental agenda of Ghana to reduce graduate unemployment; examining the inadequate institutional capacity to explore vital IGR opportunities in public universities; and funding issues in private universities and their effects on the quality of human resources trained in Ghana.

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APPENDEXES

APPENDIX 1: QUESTIONNAIRE FOR HEADS OF ACADEMIC DEPARTMENT

I am a graduate student at the University of Kwazulu-Natal, South Africa. This questionnaire is designed to enable me collect data for my research work on the topic: **"Funding Dilemmas in Tertiary Education Institutions: The Case of Internally Generated Revenue (IGR) in Public Universities in Ghana".** You are kindly invited to participate in this research study as head of academic department. The research work is purely for academic purpose with no compensation for responding nor is there any known risk, and all information will be treated as confidential. Data collected will provide useful information for stakeholders of higher education on how increasing internal revenue mobilization resulting from dwindling public grant is affecting higher education access, quality, and general welfare of staff and students. Recommendations on the way forward will be provided.

A. Demographic Information

 a. Up to 30 years b. 31 to 40 years c. 41 to 50 years d. 51 to 60 years e. 61 and above 2. Gender Male { } Female { } 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { } Second degree { } Second degree { } Second regree { } Second regree { } Length of service at your present work place? Less than 5 years { } 6 -10 years { } 11 - 15 years { } 21-25 { } { } 26-30 { } } 	1. Age as at 30^{in} June, 2016
 b. 31 to 40 years c. 41 to 50 years d. 51 to 60 years e. 61 and above 2. Gender Male { } Female { } 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { } Second degree { } Second degree { } Second degree { } Institution/Work Place Designation/Rank Length of service at your present work place? Less than 5 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	a. Up to 30 years
 c. 41 to 50 years d. 51 to 60 years e. 61 and above 2. Gender Male { } Female { } 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { } Christiation/Work Place Designation/Rank Length of service at your present work place? Less than 5 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { } 	b. 31 to 40 years
 d. 51 to 60 years e. 61 and above 2. Gender Male { } Female { } 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } 5. Institution/Work Place 6. Designation/Rank 7. Length of service at your present work place? Less than 5 years { } 6-10 years { } 11 - 15 years { } 21-25 { } 	c. 41 to 50 years
 e. 61 and above 2. Gender Male { } Female { } 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { } Institution/Work Place 6. Designation/Rank 7. Length of service at your present work place? Less than 5 years { } 11 – 15 years { } 16 - 20 { } 21-25 { } 26-30 { } 	d. 51 to 60 years
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 3. Marital Status (a) { } Single (b) { } Married (c) { } Seperated (d) { } Divorced (e) { } Widowed 4. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { } 	Female { }
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Second degree{Terminal degree{5. Institution/Work Place6. Designation/Rank7. Length of service at your present work place?Less than 5 years{6 -10 years{11 - 15 years{16 - 20{21-25{26-30{	First degree { }
Terminal degree{ }5. Institution/Work Place6. Designation/Rank7. Length of service at your present work place?Less than 5 years{ }6 -10 years{ }11 - 15 years{ }16 - 20{ }21-25{ }26-30{ }	Second degree { }
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6. Designation/Rank 7. Length of service at your present work place? Less than 5 years { } 6 -10 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	5. Institution/Work Place
7. Length of service at your present work place? Less than 5 years { } 6 -10 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	6. Designation/Rank
Less than 5 years { } 6 -10 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	7. Length of service at your present work place?
6 -10 years { } 11 - 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	Less than 5 years { }
11 – 15 years { } 16 - 20 { } 21-25 { } 26-30 { }	6 -10 years { }
16 - 20 { } 21-25 { } 26-30 { }	11 – 15 years { }
21-25 { } 26-30 { }	16 - 20 { }
26-30 { }	21-25 { }
	26-30 { }
31 and above { }	31 and above { }

B. Experiences of Staff on Funding in Public Universities

- 8. To what extent do you agree or disagree that there is national financial crisis resulting into state reduction in public universities funding to help revive the financial downturn?
 a. Strongly agree { } b. Agree { } c. Neutral { } d. Disagree { } e. Strongly disagree { }
- 9. Explanation of the Reason for Reduction in State Subvention to the Universities
 Please tick (√) the appropriate box to indicate your opinion on these statements.
 Key: SA=strongly Agree, A= Agree, UD= Undecided, D=Disagree and
 SD = Strongly Disagree

STATEMENT	SA	Α	UD	D	SD
Bad economic situation in the country affects public					
grant to the University					
Fully funded universities by the public is no longer					
feasible and unsustainable					
University education delivery through the free market					
mechanism does not require public funding					
Pressure on demand for equally important social					
services adversely affect public grant to the university					
University education is a private good and the recipient					
is the primary beneficiary					
Recipient of university education is the major					
benefactor and should be made to fully pay for the cost.					

- 10 (i) With declining state funding for higher education would you like government to declare public universities independent business organizations with the purpose of increasing internally generated revenue? a Yes { } b No { } (c) Don't Know { }
- (ii) Please explain your answer
- 11. What should be done at public universities to mitigate the effect of cuts in public subvention?
 - a. Closedown some academic departments { }
 - b. Combine smaller academic departments { }
 - c. Intensify commercial activities { }
 - d. Merge with other universities { }
 - e. Do nothing { }
- 12 Do you have other supplementary or additional income from research/consultancy activities? (a) Yes { } (b) No { } (c) Cant Disclose { }
- 13 Is the university management aware of your supplementary income source? (a) Yes { } (b) No { } (c) Don't Know { }
- 14 The funding cuts could eventually result in some universities merging or closing some departments. Are you worried about losing your job through redundancy as a consequence of funding cuts and commercialization? a. Yes { } b. No { } c. Don't Know{ }
- 15 Are there any change(s) in your role as a result of university marketization? a. Yes { } b. No { } (c) Don't Know { }

- 16 Have you observed any conflict between some public university managers or leaders in terms of job function or role as a result of commercial activities? a. Yes { } b. No { } c. Don't Know { }
- 17 } How manageable is your teaching load at this university? (a) Extremely manageable {} (b) Very manageable {} (c) Moderately manageable {} (d) Slightly manageable {
 - } (e) Not at all manageable {

C. Funding Strategies in Public Universities in Ghana

18. (i) Do you subscribe to the institute/department entering into commercial activities which are not academically related to raising revenue? a. Yes $\{ \}$ b. No $\{ \}$ c. Don't Know $\{ \}$ (ii) Give two (2) reasons for your answer to 17 (i)

19. (i) Has the institute/department currently adequately invested in identified profitable ventures to maximize returns from such investments and improve upon its IGR? a.Yes $\{ \}$ b. No $\{ \}$ (c) Don't Know $\{ \}$

(ii) Give two reasons for your answer

20. (i) Is the institute/department transparent with the use of IGR? (a) Yes $\{ \}$ (b) No $\{ \}$ (c) Don't Know $\{ \}$

(ii) State two (2) reasons for the answer

a. b.

21. (i) Will you subscribe to the recommendation that public universities **should not** be funded by the state? (a) Yes { } (b) No { } (c) Don't Know { }

(ii) State two reasons for your answer

a. b.

22. In your view, how should public universities be funded in Ghana?

23. Is the success of academics in generating revenue for the university used as part of the promotion criteria? (a) Yes $\{ \}$ (b) No $\{ \}$ (c) Don't Know $\{ \}$

24. Do you receive any (financial/salary, in kind) benefits as academic for successful engagement in IGR? (a) Yes { } (b) No { } (c) Don't Know { }

25. Does successful engagement in revenue generation lead to better working conditions for staff (e. g. activity portfolio; participation in conferences; better research facilities)? (a) Yes $\{\ \}$ (b) No $\{\ \}$ (c) Don't Know $\{\ \}$

26. Have you ever made any changes in your program supply or introduced market-oriented academic programs in order to generate additional resources from external sources since 2010 (a) Yes { } (b) No { } (c) Don't Know { }

27. Has your department make any changes in its research activities/portfolio in order to generate additional resources since 2010? (a) Yes { } (b) No { } (c) Don't Know { }

- 28. Did this imply a shift in focus of research towards more applied research, user-driven research (research that is especially focusing on external needs)? (a) Yes { } (b) No { } (c) Don't Know { }
- 29. Have there been or are there currently research co-operation between your department and stakeholders that bring in significant additional resources? (a) Yes { } (b) No { } (c) Don't Know { }

D. Effects of IGR on Public Universities in Ghana

- 30. What is the size of faculty members in your School/Department?
- 31. What is the gender ratio? Males..... Females.....
- 32. How many have terminal degree? Males..... Females.....
- 33. (i) How many of the faculty members have solely/partly been supported with internally generated revenue to pursue local/international terminal degree since 2010? (a) 1-5 { } (b) 6-10 { } (c) 11-15 { } (d) 16-20 { } (e) 21 and above { } (f) Don't Know { }
- (ii) Kindly indicate the type of support given:
- a. Payment of all expenses involved in the program { }
- b. Payment of tuition fees for the program { }
- c. Payment of monthly stipend, air ticket/transport costs { }
- d. Payment of monthly stipend only { }
- e. Payment of air ticket/transport costs only { }
- f. Indicate other assistance not covered

34. (i) How many faculty members have solely/partly been supported with internally generated revenue (IGR) to attend local/international conference since 2014? (a) $1-5 \{ \}$ (b) $6-10\{ \}$ (c) $11-15\{ \}$ (d) $16-20\{ \}$ (e) 21 and above $\{ \}$ (f) Don't Know $\{ \}$

- (ii) Kindly state the type of support given
- 35. (i) How many new academic programs have your institute/department designed, approved and mounted since 2010? (a) 1-5 { } (b) 6-10 { } (c) 11-15 { } (d) 16-20{ } (e) 21 and above (f) Don't Know { }
- (ii) Explain how the internally generated revenue (IGR) supported the new programs design
- 36i. Has your departmental research agenda been motivated by the search for IGR since 2010?(a) Yes { } (b) No { } (c) Don't Know { }
- (ii) Did the research focus change to applied/user-driven agenda toward external needs for IGR?
- (a) Yes (b) No (c) Don't Know

37i. Has internally generated revenue (IGR) been supportive in the institute/department effort to provide furnished offices for its faculty members? a. Yes { } b. No { } c. Don't Know { }

(ii) What is the level of support from internally generated revenue (IGR) for the provision and furnishing of faculty members' offices? (a)) $81-100\% \{ \}$ (b)) $61-80\% \{ \}$ (c)) $41-60\% \{ \}$ (d)) $21-40\% \{ \}$ (e)) $1-20\% \{ \}$ (f)) Nil $\{ \}$

38i. Explain how your Institute/Department funds its research activities?

(ii) How do internally generated revenue (IGR) in the institute/department support research funding?

(a) 81-100% { }(b) 61-80% { }(c) 41-60% { }(d) 21-40% { }(e) 1-20% { }(f)) Nil { } 39i. Does IGR drive increases work load at your institute/department? a. Yes { }

b. No { } (c) Don't Know { }

(ii) Explain your answer

40. Explain how IGR drive affects the core business of your institute/department vis-à-vis:

i. Teaching

ii. Research

iii. Outreach programs/Community engagement

41 Declining Public Subvention and IGR Management in Public Universities

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, UD= Undecided, D=Disagree and

SD = Strongly Disagree

i. Ext	pected Outcome	of State Sub	vention Decline	e on the Unive	rsities Deliverv
1. 1. 1.	Jeelea Outcome	of State Sub	vention Decenii		

STATEMENT	SA	Α	UD	D	SD
Withdrawal of public subvention will make public					
universities run as commercial organization					
Withdrawal of public subvention will necessitate					
downsizing of staff and reduced conditions of serviced					
in public universities					
Reduction in public subvention necessitates					
withdrawal of some services provided by public					
universities					
Reduction of public subvention adversely affect the					
quality of teaching and research in the university					
Reduction in state subvention results in phasing out					
unattractive academic programs at the university					
Reduction in state subvention cause public universities					
to be managed like business organization					
Inadequate subvention makes universities unsustainable					
and management ineffective					
State subvention to the university greatly enhances					
delivery of its core mandate					

ii. Outcome of IGR Mobilization Drive on Staff Delivery

STATEMENT	SA	Α	UD	D	SD
Internally generated revenue drive of the department					
has expanded staff workload recently					
Internally generated revenue drive has adversely					
affected the quality of staff output at the department					
I am satisfied with my current role and responsibility at					
the university					
My current remuneration at the university is very fair					
and commensurate with my roles and responsibilities					
Resources required to effectively discharge my duties					
is always available at the department					
My department has conducted research which was					
fully/partly funded with internally generated revenue					
since 2010					

STATEMENT	SA	Α	UD	D	SD
Universities should be managed as business					
organizations to generate funds internally					
The university should generate internal revenue and					
wean itself from public grant					
The department has designed market oriented					
academic programs to attract students					
Mounting attractive academic programs expand					
student enrollment and increase IGR					
Creation of internally generated revenue co-ordination					
centre is relevant for improving revenue generation in					
the department					

APPENDIX 2: QUESTIONNAIRES FOR DIRECTORATES OF FINANCE AND INTERNAL AUDIT

I am a graduate student at the University of Kwazulu-Natal, South Africa. This questionnaire is designed to enable me collect data for my research work on the topic: **"Funding Dilemmas in Tertiary Education Institutions: The Case of Internally Generated Revenue (IGR) in Public Universities in Ghana**". You are kindly invited to participate in this research study as accounting professional of the university. The research work is purely for academic purpose with no compensation for responding nor is there any known risk, and all information will be treated as confidential. Data collected will provide useful information for stakeholders of higher education on how increasing internal revenue mobilization resulting from dwindling public grant is affecting higher education access, quality, and general welfare of staff and students. Recommendations on the way forward will be provided.

A. Demographic Information

- 10. Age as at 30th June, 2016
- a. Up to 30 years b. 31 to 40 years c. 41 to 50 years d. 51 to 60 years e. 61 and above 11. Gender Male { } Female { } 12. What is your highest qualification? Certificate { } Diploma { } First degree { } Second degree { }
- Terminal degree
- 13. Indicate any additional academic or professional qualification
- 14. Institution/Place of work
- 15. Designation/Rank
- 16. Length of service at your present work place?

{ }

Less than 5 years	{ }
6 -10 years	{ }
11 – 15 years	{ }
16 - 20	{ }
21-25	{ }
26-30	{ }
31 and above	{ }

B. Current Experiences of Staff on Universities Funding

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements. Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree

8i. What have been the consequences of reduction in state subvention on staff delivery?

STATEMENT	SA	Α	UD	D	SD
Increased responsibility to source for extra funding to					
finance planned programs and activities at the					
university					
Delays in paying staff legitimate financial entitlements					
lower morale and productivity at the work place					
Reduction in the university staff-sponsored					
conferences and workshops					
Delays in payment of workers' salaries often lead to					
labour agitations					
Management is often accused by staff as difficult and					
not prepared to release funds to meet their legitimate					
demands					

ii. What are the implications of funding decline on university instituions

STATEMENT	SA	Α	UD	D	SD
Reduction in the annual planned programs and					
activities at the university which have adversely					
affected productivity					
Often the university cannot honour its financial					
obligations and indebted to many service providers					
University is burden with interest servicing loans and					
overdrafts contracted at the commercial banks					
Difficulty in having approval from the appropriate					
authorities to employ new faculty members to replace					
retired ones is a worry					
Corporate image of the University is negatively					
affected					

C. Funding Challenges and Opportunities in Public Universities

- 9. How do state regulatory policies affect the IGR drive of the university?
- 10. Does requested state subvention released timely to meet the exigencies and expenditure patterns of the university/division? (a) Yes { } (b)) No { } (c) Don't Know { }
- 11. If the payment of state subvention delays, how does the university fund programs/activities covered by the projected subvention? (a) expenditure suspended pending release of funds { } (b) hire purchase { } (c) use of internally generated revenue{ } (d) use of credit facilities { } (e) Bank loans { }
- 12. What are the effects on the universities if state subvention payments are not released time?
- 13. What happens to a project/program tied to donor support/state subvention if the support/fund is not released? (a) the entire budget is reprioritised with a focus on the highest priorities { } (b) the expenditure item(s) is abandoned { } (c) loan accessed to

finance the item(s) { } (d) Internally Generated Revenue is used to finance the item(s) {
} (e) expenditure item(s) suspended till release of funding { }

- 14. (i) Is the university capable of self-financing? (a) Yes { } (b) No { } (c) Don't Know { }
 (ii). Should public subvention be withdrawn entirely? (a) Yes { } (b) No { } (c) { }
 Don't Know { }
 - (iii) Give two reasons for your answer in 14 (ii)

i. ii

15. State three major sources of funding for the University

i. ii.

iii

- 16. List two (2) areas that the University can explore to improve upon its IGR collection i.
 - ii.
- 17 . Has the University expanded its IGR base since 2010? (a)) Yes { } (b)) No { } (c) Don't Know { }

18. If your answer to (17) above is yes, list three new items that have been added to the IGR base since 2010?

i.

ii.

iii.

D. Revenue Generation Strategies in Public Universities in Ghana

Kindly read the Questions Below and Tick ($\sqrt{}$) the Correct Answer

- 19. What efforts are made by the University to boost its projected revenue required to finance its planned programs and activities in a given year?
- a. Increase students' academic facility user fees per year { }
- b. increase the service charges to clients per year { }
- c. Negotiate with the appropriate state authorities to increase annual grant payment { }
- d. Solicit for funding from donors { }
- e. Negotiate with financial institutions for loans and soft interest rate { }
 - (tick as many as applicable).
 - 20. Has the University expanded its IGR base since 2010? (a)) Yes { } (b)) No { } (c) Don't Know { }
 - 21. List at most, three activities that the University has undertaken to generate extra revenue since 2010
 - 22. How does the University deal with its staff who engage in consultancy services or personal income generating activities while they remain full-time staff?

a. the University does not encourage staff to engage in any revenue generating activity as full-time staff $\{ \ \}$

- b. the University does not keep track of its full-time staff who engage in other personal revenue generation activities { }
- c. full-time staff who engage in other personal income generating activities pay a percentage of extra income earned to the University { }

- d. most full-time staff who engage in other personal income generating activities do not honour their financial commitment to the university { }
 - 23. If part of the extra income earned by staff is paid to the university state the percentage payment to the university
 - 24. (i) Would you subscribe to the University entering into commercial activities which are not academically related to raise revenue? a . Yes { } b. No { } c. Don't Know { }
 - (ii) If yes, list two of such activities
 - (iii) If no, give two (2) reasons for your answer
 - 25. How is expenditure items managed to ensure that budget overruns are very minimal in a fiscal year at the University? a. Vote controllers are given monthly expenditure returns to guide their spending { } b. spend any available funds as and when necessary { } c. spending on any expenditure item ceases if funds allocated in a year is exhausted { } d. the budget is reviewed if a particular expenditure item is critical for the university/division but its vote is exhausted before its completion { } e. Approval will be sought from a higher authority for additional spending on that expenditure item { }
 - 26. How does the university/section treat unpaid bills payable to clients when designing a budget for new fiscal year?
 - a. unsettled bills do not reflect in the new budget but payments are made when funds are available { } b. bills are incorporated in the new budget as unpaid arrears { } c. no arrears is carried over to the next fiscal year { }
 - d. Others.....
- 27. What happens to on-going programs/activities with its funding exhausted in a particular fiscal year when a budget is being designed for the ensuing year?a. programs/activities are abandoned { } b. programs/activities are incorporated for

completion { } c. programs/activities are reprioritized among others { }
d. programs are not incorporated but will continue when resources are available { }

- 28. Has the University designed Internally Generated Revenue Policy to improve upon its IGR generation? (a) Yes { } (b) No. { } (c) Don't Know { }
- 29 If yes, explain how the policy implementation has affected internally revenue generation.

30 . Has the University developed a reliable database for annual revenue and expenditure projections? a. Yes $\{ \}$ b. No $\{ \}$ c. Don't Know $\{ \}$

31i What Facilities and Systems has the University put in place to improve its IGR since 2010

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=Strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree

STATEMENT	SA	Α	UD	D	SD
Creation of revenue generation coordination centres to support					
relevant units will improve the financial flow of the University					
Management of the University is transparent with the use of					
internally generated revenue					
The university could substantially increase its IGR if the					
services of fund raising experts are hired					
The university has engaged the services of fund raising expert to					
improve upon its revenue mobilisation					
The university has a planning manual to guide the preparation of					
annual revenue projection					
The university has designed a strategic plan to guide and					
enhance revenue generation					

31ii. What Specific Actions has the University adopted to Improve its IGR since 2010

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly disagree

STATEMENT	SA	Α	UD	D	SD
Creation of revenue generation coordination centres to support					
relevant units will improve the financial flow of the University					
Management of the University is transparent with the use of					
internally generated revenue					
The university could substantially increase its IGR if the					
services of fund raising experts are hired					
The university has engaged the services of fund raising expert to					
improve upon its revenue mobilisation					
The university has a planning manual to guide the preparation of					
annual revenue projection					
The university has designed a strategic plan to guide and					
enhance revenue generation					

32. How should public universities be funded in Ghana?

E. How Funds are spent in Public University

Read the statements below and tick ($\sqrt{}$) the appropriate answer

33. What percentage (average) of your internally generated revenue is allocated for development projects in the university/division annual budget since 2010? (a) up to10 { }

(b) 11-20 { } (c) 21-30 { } (d) 30 and above { } (e) don't know { }

i.

ii.

36i. Have such projects/program facelift the image of the university/division? (a) Yes { }

- (b) No () (c) Don't Know { }
- (ii) List two reasons for your answer in 36i above

37i. Has the university/division any motivation package for staff engage in IGR mobilization activities? (a) Yes { } (b) No { } (c) Don't Know { }

- (ii). If your answer for 37i is yes, list two of these packages
 - i.
 - ii.
- (iii). Please explain how each package is funded

ii. If you are to rate the university/division in terms of efficient use of internally generated revenue to improve upon academic staff welfare, how would you describe it? (a) Excellent { }
(b) Very Good { } (c) Good { } (d) Average { } (e) Poor { } (f) Very Poor { }

iii. If you are to rate the university/division in terms of efficient use of internally generated revenue to improve upon non-academic staff welfare, how would you describe it? (a) Excellent { } (b) Very Good { } (c) Good { } (d) Average { } (e) Poor { } (f) Very Poor { }

THANK YOU

APPENDIX 3: QUESTIONNAIRE FOR STUDENT ASSOCIATION LEADERS IN ACADEMIC DEPARTMENTS

I am a graduate student at the University of Kwazulu-Natal, South Africa. This questionnaire is designed to enable me collect data for my research work on the topic: "Funding Dilemmas in Tertiary Education Institutions: The Case of Internally Generated Revenue (IGR) in Public Universities in Ghana". You are kindly invited to participate in this research study as a leader of the academic department students association. The research work is purely for academic purpose with no compensation for responding nor is there any known risk, and all information will be treated as confidential. Data collected will provide useful information for stakeholders of higher education on how increasing internal revenue mobilization resulting from dwindling public grant is affecting higher education access, quality, and general welfare of staff and students. Recommendations on the way forward will be provided.

D. Respondents' Background Information

· . 0
17. Age as at 30 th June, 2016
18. Gender
Male { }
Female { }
19. Home Town
20. Faculty/Department
21. Designation or current position
22. Level

E. Current Experiences of Students on State Funding Of Public University in Ghana

- 23. Who pays for your education at your current level of study? (a) Myself { } (b) Both parents { } (c) Mother Alone/Father Alone { } (d) Friends/Relatives { }
 - (e) Sponsor/Benefactor { }

(f)Other(specify)

8. Have you ever sourced for any financial assistance for your current education anywhere? (a) Yes { } (b) No { }

9. If yes to question 8, where did you solicit for the financial assistance? (a) Teachers Fund { } (b) Students Loan Trust Fund { } (c) GETFund { } (d) Bank { } (e) Financial Assistance from School/Scholarship { } 10. If no to question 9 above, please state why you did not apply for the Student Loan Trust

Fund?

11. How do students pay fees to the university before they are allowed to register as students?(a) { }minimum of 50- 69 percent payment before registration as student

(b){ } at least, 70 percent payment before registration as student (c) { }100 percent payment before registration as student (d) { } students registration not tied to payment of fees

- 12 How should the University be funded to ensure all stake-holder satisfaction?
- 13 Revenue from fees makes a substantial percentage of your university's revenue. So some universities will charge high fees to meet revenue targets if state subvention is cut. Reduction in state subvention will therefore shift the financial burden to students: a. { } Strongly agree b. { } Agree c. { } Neutral d. { } Disagree e. { } Strongly disagree

14. Students are charged high fees at the University to minimize the effect of reduction in public subvention to the University (a) $\{ \}$ True (b) $\{ \}$ False (c) $\{ \}$ Don't Know

- 15 Reduction of state subvention will compel your university management to charge high academic user fees which could reduce student numbers. Do you think the likelihood of a reduction in student numbers is good for higher education in Ghana? a. { }Yes b. { }No c. { } Don't Know
 - 16. How should the university treat high achieving but financially-needy students who are unable to pay their indebtedness to the university?
 - 17. List three facilities that are in place to facilitate quality academic work for students at the University?
- 18. How are the facilities financed?
- 19. Does financing affected by cuts in government subvention? Explain your answer
- 20. Should government abolish payment of fees at the university? a. { } Yes b. { } No c. { } Don't Know
- 21. Available lecture rooms at your university meet the learning needs of students
 - a. { } Strongly Agree b. { }Agree c. { }Undecided d. { }Disagree e. { } Strongly Disagree
- 22. It is easy to obtain the resources you need from the university library
 - a. { } Strongly Agree b. { }Agree c. { } Undecided d. { }Disagree e. { } Strongly Disagree
- 23. It is easy to access internet facility to support the learning needs of student in the university?a. { } Strongly Agree b. { }Agree c. { } Undecided d. { }Disagree e. { } Strongly Disagree
- 24. The University has effective internet facility to support the learning needs of students a. { } Strongly Agree b. { }Agree c. { }Undecided d. { }Disagree e. { } Strongly Disagree
- 25. The University has spacious state-of-the-art library facilities for good students' learning outcome a. { } Strongly Agree b. { }Agree c. { }Undecided d. { }Disagree e. { } Strongly Disagree

F. Strategies to deal with Funding in Public Universities in Ghana

26. (i) Will you subscribe to the recommendation that public universities **should not** be financially supported by the state but should be managed solely with IGR ? (a) { } Yes (b) { } No (c) { } Don't Know

(ii) State two reasons for your answer.

27. (i) Do you subscribe to the University entering into commercial activities which are not academically related to raise revenue? a . $\{\ \}$ Yes b. $\{\ \}$ No c. $\{\ \}$ Don't Know

(ii) If yes, give two of such activities

(iii) If No, give two (2) reasons for your answer

28. (i) Is the University Management transparent with the use of IGR? (a) { } Yes (b) { } No (c) { } Don't Know

(ii) State two (2) reasons for the answer

29. Give two (2) recommendations that could help University management to improve upon its IGR per year?

D. Effects of IGR Mobilization on Access and Learning in Public Universities

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree **30i IGR Management As a Substitute for State Subvention Decline**

STATEMENT	SA	Α	UD	D	SD
Management of the university is accessing all					
possible sources to generate enough revenue					
internally to complement public subvention					
In the current higher education climate universities					
competing nationally and internationally to increase					
student numbers with the view to increasing revenue is					
not good for higher education					
Management could do better with revenue generated					
internally to provide good students' support services					
for effective academic work					
Management at the university is very efficient in the					
use of funds generated from internal sources					
Reduction in state funding in the university compels					
management to charge high academic facility user fees					

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree ii. Cost-Sharing and Increasing Students Fees

STATEMENT	SA	Α	UD	D	SD
Students are charged high fees to minimize the effect					
of reduction in public subvention to the University					
Students/parents in public universities are currently					
paying too much for academic facility user fees					
Universities in Ghana should be allowed to charge full					
fees for cost of instruction, while the state provides					
loan					
facilities for students to pay for the fees and pay back					
after graduation					
Payment of full fees by students in university will ease					
the financial burden of government and university					
management					
Students fees make a substantial percentage of the					
total revenue for the university					

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree **31i Relevance of IGR in Teaching and Learning**

STATEMENT	SA	Α	UD	D	SD
Funds mobilised internally at the university is being					
utilised to improve academic facilities for use by					
students					
Improvement in revenue generation will enhance					
general infrastructural provision at the University					
Increase in IGR will lead to improved teaching and					
learning facilities for quality academic work					
Improved revenue generation has made possible					
enhanced motivation package for academic excellence					
among students					

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Ågree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagree ii. The Role of Marketization in Access, Teaching and Learning

STATEMENT	SA	Α	UD	D	SD
Increased revenue drive has made available many					
market-oriented academic programs options for					
students to choose					
Introduction of many academic programs has offered					
students the opportunity to select programs of their					
interest which they could afford					
Commercialisation has introduced competition into					
university education and make lecturers attend lectures					
regularly without delay					
My academic advisor is very helpful since he/she is					
regularly available to attend to students' academic					
challenges					
Lecturers are very committed to their work and					
deliver lectures professionally					

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree, U= Undecided, D=Disagree and SD = Strongly Disagr	ree
iii. Adverse Impact of IGR Drive on Universities Delivery	

STATEMENT	SA	Α	UD	D	SD
Increased revenue drive has necessitated the					
introduction of additional academic programs and					
increased lecturers workload					
Increased workload of lectures has adversely affected					
the quality of their delivery					
Increased revenue drive has given rise to late release					
of examination results					
Increased revenue drive has resulted in increases in					
charges for the use of university's facilities					
Increased revenue drive has commercialised university					
education and made it expensive beyond the reach of					
qualified applicants from poor families					
High academic facility user fees at the university					
could negatively affect student enrollment					
Increased revenue drive has made university education					
available for the few rich and privileged in society in					
Ghana					

Please tick ($\sqrt{}$) the appropriate box to indicate your opinion on these statements.

Key: SA=strongly Agree, A= Agree,	U= Undecided, D=Disagree and SD = Strongly Disagree
32. General Issues of Cost Sharing.	Access, and Learning in the Universities

STATEMENT	SA	Α	UD	D	SD
I feel that I can always pay for all the components of my fees					
when asked to do so					
Students pursuing higher education are prepared to pay higher					
fees if employment prospects after graduation is guaranteed (2)					
Students are willing to pay additional fees if revenue generated					
are efficiently utilised on facilities to enhance academic work					
Increased revenue drive has increased the workload of lecturers					
and adversely affected the quality of delivery					
Brilliant but financially-needy students should be fully					
sponsored by the university					
Any form of fees payment at the university should be abolished					
The university has very effective internet facility to support the					
learning needs of students					
University education is for the privileged few in society. The					
private benefit to the recipient is far higher than the benefit to					
society at large.					
Beneficiaries of university education should bear the cost of					
accessing university education					

APPENDIX 4: INTERVIEW SCHEDULE FOR PRINCIPAL OFFICERS OF PUBLIC UNIVERSITIES

1. Current Experiences of Staff on the state of Funding in Public Universities in Ghana

i What is the core business of the university? How does IGR activities affect the core business?

ii. How does the university policy of funding differ from other public universities in the country?

iii. How do the various decentralized/bureaucratic processes affect the flow of revenue to the various institutions or departments within the university?

iv. How does the university become accountable and responsible to their various sources of funding for the institution?

v. What is the status of the "Akosombo Accord" where cost sharing arrangement for tertiary education was designed and accepted by stakeholders for implementation in 1997. What were the implementation challenges and the way forward?

2. Funds Allocation and Expenditure trends in the University

- i. What major issues are considered when funds are being allocated to the various faculties and departments within the university?
- ii. How does successful engagement in IGR affect the working conditions of staff?
- iii. How does management ensure value for money at the university in its IGR mobilization and utilization processes

3. Effects of IGR Mobilisation on Public Universities in Ghana

- i. i. Has the university ever made any changes in your modes of educational delivery in order to generate additional resources from external sources?
- ii. Has there been any specific national policy/policies or regulations in the country over the past decade that have affected (positively/negatively) IGR efforts of the university? How did the university management react to such policies/regulations?

iii. How does increased IGR activities affect the quality of university education/scholarship in your institution vis-à-vis research, conference attendance, pursuance of terminal degree?

iv. How has IGR activities in your institution affected students' enrollment?

v. How does the IGR efforts of staff affect their professional progression at the university?

vi. How does IGR activities affect the core business of the University?

Summary

Do you have any other issue(s) to add?

Thank you.

APPENDIX 5: INTERVIEW SCHEDULE FOR LEADERSHIP OF WORKERS' UNIONS IN PUBLIC UNIVERSITIES:

University Teachers Association of Ghana (UTAG) Ghana Association of University Administrators and Professionals (GAUA) Federation of University Senior Staff Association (FUSSAG) Tertiary Education Workers Union (TEWU)

- i. How is the University funded currently? What do you recommend should be done to ensure sustainable funding for the university?
- ii. Are your Association members affected by public subvention cuts? How do such cuts affect delivery of the core business of your Association members at the University? How do they react to such subvention cuts?
- **iii.** What role(s) do your Association members play to facilitate IGR mobilization efforts at the University?
- iv. Does the University have a motivation package for excellence for staff? Are workers motivated by the existing motivation package? How is the package financed?
- v. What is your perception of management use of IGR in the University? Elaborate on your answer
- vi. Does the University utilize IGR on infrastructural projects that benefit your association members directly? Explain the nature of the projects and how they are financed?
- vii. Can you list some programs and projects on which the University spends its IGR? Do these programs and projects enhance the service delivery of the University? Explain your answer
- viii. How do the IGR mobilization activities of the University affect your association members in discharging their duties at the university? Explain your answer
- ix. What challenges do the university encounter in its IGR mobilization efforts? How can these challenges be resolved?
- x. How can the university improve on its IGR activities while ensuring quality and fair access for all potential students?

Summary

Do you have any other issue(s) to add? Thank you.

APPENDIX 6: INTERVIEW SCHEDULE FOR STAKEHOLDER-INSTITUTIONS OF PUBLIC UNIVERSITIES IN GHANA: MINISTRY OF FINANCE AND ECONOMIC PLANNING, MINISTRY OF EDUCATION IN CHARGE OF HIGHER EDUCATION, NATIONAL COUNCIL FOR TERTIARY EDUCATION

- i. What is/are the current position(s) of your Ministry/Organisation toward the provision of funding for higher education institutions in the country?
- ii. What is the nature of relationship between your institution and other universities regarding budget and other financial issues for running public universities?
- iii. What role does your institution play to facilitate IGR diversification and use of funds generated internally in public universities in Ghana? Explain your answer
- iv. In your estimation, does the quantum of public subvention allocated to public universities in Ghana motivate their IGR drive? Explain your answer
- v. What are the major challenges facing the generation of revenue for funding university education in the country?
- vi. How do the various bureaucratic processes affect the flow of revenue to the nation's universities?
- vii. What are the current policies designed by your institution to ensure sustainable sources of funding for higher educational institutions in the country?
- viii. What are the major future plans of your institution regarding generation of revenue for universities in the country?
- ix. Are there any funding models from other countries that influenced the Ghanaian model? Please explain
- x. What measures are your institution putting in place to address the main challenges associated with financing higher education in the country?
- xi. What are the major problems associated with the allocation of revenue among higher education institutions in the country?
- xii. What major issues are considered when funds are being allocated to the various higher education institutions in the country?

Summary

Do you have any other issue(s) to add? Thank you.

APPENDIX 7: INTERVIEW SCHEDULE FOR THE LEADERSHIP OF NATIONAL UNION OF GHANA STUDENTS (NUGS) IN PUBLIC UNIVERSITIES.

- i. Congratulation for the successful conference your outfit held on July 28-29, 2016. The communique issued at the close of the conference included a recommendation for the establishment of National Student Fund. What motivated your recommendation? How can this fund help to improve access and quality of higher education in Ghana?
- ii. What are your concerns on funding of public universities in Ghana? How can the observed concerns be resolved?
- iii. What challenges do students in public universities in Ghana encounter when paying the appropriate fees due the universities? How have your office resolved the observed challenges?
- iv. Do you think Ghanaian students receive the services for which they have paid for at the various universities they enroll? Please explain your answer
- v. What facilities are in place in the public universities to facilitate students' academic work? How are these facilities financed?
- vi. How can funding in public universities be improved?
- vii. How do the IGR activities of public universities affect access and quality of higher education delivery in Ghana?
- viii. What challenges do public universities in Ghana encounter in their IGR mobilization efforts? How can these challenges be resolved?
- ix. What is your general perception about financial accountability in public universities in Ghana, especially, in respect of revenue generated internally? Do public universities judiciously use public funds for the benefit of all? Explain your answer
- x. Do public universities have motivation package(s) to ensure excellence among students? How are the packages financed? Explain your answer
- xi. How do public universities deal with brilliant but financially needy students? How should such students be treated in public universities? Explain your answer
- xii. What is the average family income background of students enrolled in public universities in Ghana? Will you recommend introduction of tuition fees payment for all public university students in Ghana? Explain your answer.
- xiii. How should higher education in Ghana be funded for the satisfaction of all stakeholders? Explain your answer

Summary

Do you have any other issues to add? Thank you.

APPENDIX 8: INTERVIEW SCHEDULE FOR FINANCE DIRECTORS/OFFICERS OF PUBLIC UNIVERSITIES

1 Current Experiences of Staff on the state of Funding in Public Universities in Ghana.

- i. What are the major challenges regarding the generation of revenue for this university?
- ii. In terms of revenue generation or revenue management, is the university learning from practices of other universities inside or outside of Ghana? Please, explain.
- iii. How the salary structure/composition of the university and what is its (salary) ratio in relation to the annual total expenditure of the university?
- iv. How the salary financed and what is the percentage sponsorship by the various financiers?

2. Funding Strategies at the University

i What funding sources does the university have and how have the sources of funding been designed over the past six years i.e., from 2010 to date. How sustainable are these sources?

ii Apart from the government sources of funding, are there other stakeholders supporting the university financially or through infrastructure? Or other means of assistance? Please explain such forms of assistance

iii. Does the university have collaboration with international institutions which serve as sources of funding for the institution? How does it work?

iv. What are the current policies designed by the university to ensure sustainable sources of funding for its activities?

v. What are the major future plans of the university regarding generation of revenue for the institution?

vi. What measures do the university adopts to address the major challenges associated with financing its programs?

vii. What is the level of tuition fees and how was it designed/arrived at?

viii. Does the university has a specific documented plan/policy with respect to generating funds from sources other than public grants? Please explain your answer.

ix. Does IGR efforts of staff affect their professional progression at the university? Explain further.

3. Funds Allocation and Expenditure trends in the University

i. What are the major problems associated with the distribution of revenue among the departments?

ii. What happens to programs or projects tied to specific funding source if the funding is not released or delay? Explain the implication of such situation on the funding capacity of the University

iii How does the internal resource allocation arrangements affect IGR in your university?

iv. Briefly describe the internal fiscal processes of the university? Are all departments treated equally in terms of distribution of revenue?

Summary

Do you have any other issues to add?

Thank you.

Appendix 9 : Permission letter from UG

Statement in the second s	P. O. BOX LG 25 LEGON, A	CCRA, GHANA
A CONTRACTOR OF CONTRACTOR	ID 3	30 th November 2015
My Ref: No.:		
Desiree	e Manicom (PhD)	
School of S	ocial Sciences	
University of	of KwaZulu-Natal	
Private Bag	X01, Scottsville	
South Afric	a	
Dear Sir		
RE: REO	UEST FOR CONSENT T	D UDERTAKE RESEARCH STUDY ON FUNDING
<u>Ittli Ittly</u>	IN PUBLIC	UNIVERSITIES IN GHANA
use the Univ Dilemma in the Public U	versity of Ghana as one of h Tertiary Education Instituti Universities in Ghana.	is study areas for his research study on the topic: Funding ons: The Case of Internally Generated Revenue (IGR) in
Permission study area for	is hereby granted for Mr. I or his research.	aul Kwasi Mensah to use the University of Ghana as a
Mr. Mensal assistance re	h may contact the Directo equired.	r of Finance via roboapea@ug.edu.gh for any further
Mr. Mensal assistance re Yours faithf	h may contact the Directo equired. fully,	r of Finance via <u>roboapea@ug.edu</u> .gh for any further
Mr. Mensal assistance re Yours faithf	h may contact the Directo equired. fully,	r of Finance via <u>roboapea@ug.edu</u> .gh for any further
Mr. Mensal assistance ro Yours faithf	h may contact the Directo equired. fully,	r of Finance via <u>roboapea@ug.edu</u> .gh for any further
Mr. Mensal assistance re Yours faithf HHR Mercy Haiz REGISTRA	h may contact the Directo equired. fully, solution zel-Ashia AR	r of Finance via <u>roboapea@ug.edu.gh</u> for any further
Mr. Mensal assistance re Yours faithf Mercy Haiz REGISTRA	h may contact the Directo equired. fully, Sully, schestel-Ashia AR	r of Finance via roboapea@ug.edu.gh for any further
Mr. Mensal assistance re Yours faithf HHR Mercy Haiz REGISTRA	h may contact the Directo equired. fully, solution zel-Ashia AR	r of Finance via <u>roboapea@ug.edu.gh</u> for any further
Mr. Mensal assistance re Yours faithf Mercy Haiz REGISTRA	h may contact the Directo equired. fully, fully, cel-Ashia AR ector of Finance	r of Finance via <u>roboapea@ug.edu.gh</u> for any further
Mr. Mensal assistance re Yours faithf Mercy Haiz REGISTRA	h may contact the Directo equired. fully, solution rel-Ashia AR ector of Finance	r of Finance via roboapea@ug.edu.gh for any further

Appendix 10: Permission letter from UDS

UNIVERSITY FOR DEVELOPMENT STUDIES Tel: 03720-93382/26634/22078 P. O. Box TL 1350 Tamale, Ghana Email: registrar@uds.edu.gh Website: www.uds.edu.gh Our Ref:... December 09, 2015 Your Ref:... OFFICE OF THE REGISTRAR School of Social Sciences University of KwaZulu-Natal Private Bag X01, Scottville Pietermaritzburg, 3209 South Africa Dear Sir, **RE: REQUEST FOR CONSENT TO UNDERTAKE RESEARCH STUDY ON** FUNDING IN PUBLIC UNIVERSITIES IN GHANA I write to acknowledge receipt of your letter dated October 16, 2015, requesting permission for Mr. Paul Kwasi Mensah, a PhD student at the University of Kwazulu-Natal, South Africa to use the University for Development Studies as one of the study area for his research study on the topic: Funding Dilemma in Tertiary Education Institutions: The Case of Internally Generated Revenue (IGR) in the Public Universities in Ghana. Permission is hereby granted for Mr. Paul Kwasi Mensah to use the University for Development Studies as a study are for his research.

We look forward to collaborate with Mr. Mensah for effective research.

Yours faithfully,

Dr. A. B. T. Zakariah Registrar

Appendix 11: Permission letter from UEW



UNIVERSITY OF EDUCATION, WINNEBA

Office of the REGISTRAR

P. O. Box 25, Winneba, Ghana. Tel: 03323 22269/22139 Ext. 1161/1162/1163/1190 Fax: 03323-22269 E-mail:registrar@uew.edu.gh

Our Ref: Your Ref: Date: 11th December, 2015

School of Social Sciences University of KwaZulu – Natal Private Bag X01, Scottville Pietermaritzburg, 3209 South Africa

RE: REQUEST FOR CONSENT TO UNDERTAKE RESEARCH STUDY ON FUNDING IN PUBLIC UNIVERSITIES IN GHAANA

Your request on the above stated subject refers.

I have been directed to convey to you the University's approval to allow Mr. Paul Mensah use our University for his study.

The above is communicated for your information and the necessary action, please..

A. W. Essah

Deputy Registrar, Operations For; Registrar

Appendix 12: Permission letter from KNUST

I

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY Private Mail Bag University Post Office Kumasi, Ghana Tel: 233-3220-60331 Fax: 233-3220-60137 E-mail: registrar@knust.edu.gh

OFFICE OF THE REGISTRAR

DRAIICF/SF.1 15TH FEBRUARY, 2016 The Supervisor Ms. Phumelele Ximba University of KwaZulu-Natal Research Office South Africa

Dear Sir/Madam RE: REQUEST FOR CONSENT TO UNDERTAKE RESEARCH STUDY ON FUNDING IN PUBLIC UNIVERSITIES IN GHANA Reference is made to your letter dated 16th October, 2015, requesting for consent to undertake a research study in Public Universities in Ghana on the topic; "FUNDING DELIMMA IN TERTIARY EDUCA TION INSTITUTIONS: THE CASE OF INTERNALL Y GENERATED REVENUE (IGR) IN PUBLIC UNIVERSITIES IN GHANA".

We write to inform you that permission has been granted fo~ him to adopt KNUST as one of the study areas. He should liaise with the College Finance Officers for the exercise. By copies of this letter College Finance Officers are informed, accordingly. Yours Faithfully, \~C~ K. A. KARI KARI DEPUTY REGISTRAR ACADEMIC & STUDENT AFFAIRS FOR: REGISTRAR cc College Finance Officers Paul Kwasi Mensah ~~------

Appendix 13: Ethical Clearance Letter



23 June 2016

Mr Paul Kwasi Mensah 215079072 School of Social Sciences Pietermaritzburg Campus

Dear Mr Mensah

Protocol reference number: HSS/0787/016D Project Title: Funding Dilemmas in Tertiary Education Institutions: The case of Internally Generated Revenue (IGR) In Public Universities in Ghana

Full Approval – Expedited Application In response to your application received 02 June 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

dis

Dr Shamila Naidoo (Deputy Chair) Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: Dr Deslree Manicom Cc Academic Leader Research: Professor Sabine Marschall Cc School Administrator: Ms Nancy Mudau & Stella Shulika



APPENDIX 14: PROPOSED RESPONDENTS FOR THE STUDY

A RESPONDENTS FROM UNIVERSITIES TO BE INTERVIEWED

Vice Chancellor or Pro-Vice Chancellor	1
Registrar	1
Provosts or Deans	2
Leadership of Workers' Unions	4
Finance Directors/Officers	1
Sub Total	9

B RESPONDENTS FROM OTHER INSTITUTIONS TO BE INTERVIEWED

Chief Director or Deputy, Ministry of Education	1
Chief Director or Deputy, Min. of Fin. & Econ. Plnning	1
Executive Director or his Deputy, NCTE	1
President, National Union of Ghanaian Students (NUGS)	1
Sub Total	4

Total Respondents for interviews selected from four public universities (9*4) 36

Total Respondents from other institutions to be interviewed	4
Grand Total	40

Grand Total		

PROPOSED NUMBER OF RESPONDENTS FOR QUESTIONNAIRES С. **ADMINISTRATION**

Heads of Academic Department from four selected universities

Leadership of Students' Associations in Academic Departments

in the four selected universities

Director or Deputy Director, Finance Division

Director or Deputy Director, Internal Audit Division

College Finance or Faculty Finance Officers

*: UTAG, GAUA, FUSSAG, TEWU

UTAG- University Teachers Association of Ghana

GAUA- Ghana Association of University Administrators and Professionals

FUSSAG- Federation of University Senior Staff Association of Ghana

TEWU- Tertiary Education Workers Union, Ghana

Appendix15: Schedule of International Students' Fees in Public and Private Universities in Ghana

		Annual Undergraduate		Source of Data	Remarks
	Public/	International Students Fees'			
	Private	(Humanities Only)			
Institution		2017/2018	2018/2019		
UG	Public	US\$5297.00	US\$4717.00-	University of Ghana	US\$5336 for
			US\$5336.00	schedule of academic	Law/Admin.
				fees for the 2017 –	
				2018/2018-2019	
				academic year	
KNUST	Public	US\$4100.00-	US\$5192.00 -	Kwame Nkrumah	US\$5800 for
		US\$5800.00	US\$5892.20	University of Science	Law/Business
				and Technology	
				schedule of academic	
				fees for the 2017 –	
				2018/2018-2019	
				academic year	
UCC	Public		US\$5297.00	University of Cape	
				Coast schedule of	
				academic fees for the	
				2018-2019 academic	
				year	
UPSA	Public	US\$4000.00		https://egyptadmissio	Bachelor of
01,011	1 00110			ns.com/20172018-	Law
				upsa-fees-schedule	
GTUC	Private	US\$2000.00	US\$2243.00	Students fees	
				structure at the Ghana	
				Technology	
				University College	
				for 2017/2018 and	
				2018/2019 academic	
				years	
				https://www.gtuc.edu	
				<u>.gh</u>	
AUC	Duiveta	119\$7906 00		East and	Ease inclusive
AUC	Private	0391990.00	0391990.00	Scholarshing Ashasi	of textbooks
				University	Both local and
				University	international
				http://www.achaci.ad	students nev
				11 oh	the same fees
PUCa	Private	US\$2053 57	US\$3200.00	2017/2018 and	
1000	111/410	0000.01	0.00	2018/2019 Under-	
				graduate fees	
				structure (Freshers)	

				https://www.presbyu	
				niversity.edu.gh	
PUCb	Private	GHS7400.00	US\$2400.00	Pentecost University	Fees in Cedis
			US\$1=GHS5.1	College Schedule of	(local
		US\$1721.00		Fees for 2017/2018	currency)
		US\$1=GHS4.3		and 2018/2019	
				academic years	
				https://www.admissio	
				nsgh.com/pentecost-	
				university-college-	
				20172018-fees-	
				schedule/	
MUCG	Private	GHS4176.00		Methodist University	Fees in Ghana
Me ee	1 II vate	(US\$971 200		College of Ghana	Cedis (local
		(US\$\$771.200		Students Fees	currency)
		US\$1-GHS13		Structure for	currency)
)		2018/2010 academic	
)			
				<u>year</u>	
				http://www.mucg.edu	
				Ghana Universities	
				and their official	
				Fees- Nigeria	
				Universities	
				https://www.doilysch	
				oolnows com ng/best	
				oomews.com.ng/best-	
				privateuniversities-m-	
X /X /T I		QU021(0.00		mgeria	
VVU	Private	GHS3168.00		http://www.vvu.edu.g	Fees in Ghana
		(US\$/36./at		h	Cedis (local
		US\$1=			currency)
		GHS4.3)			
CSUC	Private		US\$2500.00	http://www.csuc.edu.	
WILIC	Private	US\$3264.00	US\$3374.00	https://www.legoncon	
	1 II valu	0000207.00		nect com/Wisconsin_	
				international collago	
				20172019 farm	
				201/2018-Iees-	
				schedule	1

NOTE:

UG University of Ghana

KNUST	Kwame Nkrumah University of Science and Technology
UCC	University of Cape Coast
UPSA	University of Professional Studies, Accra
GTUC	Ghana Technology University College
AUC	Ashesi University College
PUCa	Presbyterian University College
PUCb	Pentecost University College
MUCG	Methodist University College of Ghana
VVU	Valley View University
CSUC	Christian Service University College
WIUC	Wisconsin International University College