CATHOLIC UNIVERSITY COLLEGE OF GHANA

THE ROLE OF BUDGETING IN THE MANAGEMENT OF PUBLIC FUNDS IN TERTIARY INSTITUTIONS: A CASE STUDY OF THE UNIVERSITY OF ENERGY AND NATURAL RESOURCES, SUNYANI

EMMANUEL BLAY

2020

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BY

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Dissertation submitted to the Faculty of Economic and Business Administration, Catholic University College of Ghana, in partial fulfillment of the requirements for the award of Master of Business Administration degree in Accounting

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature:………………………… Date:………………………

Name: Emmanuel Blay

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Catholic University College of Ghana.

Supervisor's Signature:………………………… Date:………………………..

Name: Dr. Yaw Bediako

ABSTRACT

Budgeting role in public funds managements has become an integral part of public organisations. This study assessed the role of budgeting in the management of public funds in tertiary institutions using University of Energy and Natural Resource, Sunyani. The study adopted a case study research design using cross sectional survey methods. Stratified sampling and simple random sampling were used to select 244 respondents for the study. Data collected were analysed using descriptive statistics, frequencies, means, and standard deviation. Findings of the study revealed that Government funds are the main sources of funds at the university followed by internal generated funds. The study further established that, zero-based budget, participative budget and flexible budget are used at the university. The study concluded that budget preparation and implementations do not have challenges. The study again concluded that budgetary control practices such as budget practices, regulatory framework and auditing practices have effect on public financial management at the university. The finding again revealed that there is budget planning and development, budget implementation and budget monitoring and control at the University. The study recommended that the university should explore and identify potential financial resources within the university to augment government funding. It further recommended that managers at the university should improve on budget forecast estimates and avoid delays in approving budget by the executive board. This study suggests that a replica of the study should be conducted in most tertiary institutions in Ghana to give more national outlook for generalization.

KEYWORDS

Methods of Budgeting

Budgeting Control Practices

Public Financial Management

Public Funds

Role of Budgeting

Sources of Funds

Tertiary Institutions

University of Energy and Natural Resources

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DEDICATION

To my father and friend: Mr. Stephen Blay and Prince Mensah.

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CHAPTER ONE

INTRODUCTION

Public funds are a growing group of instruments in the hands of the public sector, which are used to achieve the goals and objectives relevant to this sector (Scott &Enu-Kwasi, 2018). These funds come from various sources and for an organisation to achieve success in the achievement of its goals and objectives, it is very important that such organisations employ budgeting in the running of their activities in order to effectively use these funds (Scott &Enu-Kwasi, 2018).

The need for prudent public financial management for development objectives to be achieved is emphasized in many circles. For example, while underlining the importance of favourable environment for undertaking productive economic activities as necessary for development, the World Bank (2011) emphasizes the need for developing countries to ensure efficient management of funds. In the same vein, Jordaan (2013) observed that understanding public financial management is imperative as it forms an integral element in national development and growth.

Budgeting which is one of the key components of the public financial management has been termed as the genesis of functional public administration. Tyer and Willand (1997) cited in Scott and Enu-Kwasi (2018) defined budgeting as valuation of receipts and expenditures or a public balance sheet, and as a legislative act establishing and authorizing certain kinds and amounts of expenditures and taxation. Horngren et al. (2004) described a budget as the quantitative expression of a proposed plan of action by management for a specified period, while Blumentritt (2006) defined budgeting as the process of allocating an organization's financial resources to its units, activities and investments.

Budgeting has thus become crucial, and the need for proper budgeting practices has been identified as essential for developing nations, including those in Africa. Siswana (2007) cited in Speer (2012) notes that proper budgeting assists public sector entities to ensure that expenditure patterns in relation to programmes and projects occur within a budgeted vote. Furthermore, as noted by Russell and Bvuma (2009) there is a need to plan, budget for and implement actions which have the potential of radically improving the reach, accessibility and quality of service delivery in the African public sector. According to Tsheletsane and Fourie (2014), financial management fulfils an important role in the South African public sector, because without public funds to cover operational and capital costs, and without appropriate personnel, no public institution can render effective services.

This study looked at budgeting as practiced in the Ghanaian universitiesusing the University of Energy and Natural Resources as a case study. The study sought to identify various methods, through which funds are made available to these institutions and identify the kinds of budgeting they employ in fund management. The study also sought to identify the challenges the institutions face with regard to types of budgeting they employ in managing their funds and also evaluate how these budgetary controls are practised.

Background of the Study

The notion of public funds is very broad, including that of expenditure on salaries, social insurance for employees of public administration, operating expenses, pension funds, public investment, and public revenue (Hendriks, 2013).

Public funds are a growing group of instruments in the hands of the public sector, which are used to achieve the goals and objectives relevant to this sector (Scott &Enu-Kwasi, 2018). Through these funds, the public sector makes possible the existence and continuation of its activities. More specifically, public funds are all monetary assets, which are collected, received, maintained, distributed and spent by public sector entities that consist of revenues, expenditures, loans and grants for public sector entities (Hendriks, 2013).

Given the difficult economic period in which the country is experiencing, losses arising from public funds abuse are the most serious, because in this time of crisis a single penny must be used effectively and it has to be avoided as much as possible (Carney, 2011). According to Achim (2009) cited in Pintea et al., (2013), budgets must be drawn to check how these funds are used. A budget, hence, can be described as a quantitative statement for a defined period of time, which may include planned revenues, assets, liabilities and cash flows. It provides a focus for the organization, aids the co-ordination of activities and facilitates control. Quite simply, it provides an overall framework of control without which it would be impossible to manage Achim (2009) cited in Pintea et al., (2013).

Budgeting always leads to accountability. Clear accountability for results at all levels in an organisation enables public officers to exercise their responsibility to deliver with judgement, intuition and innovation. Accountability is an obligation to ensure that work has been conducted economically, efficiently and effectively in compliance with agreed rules and standards. The major objective of budgeting in both the public and private sectors is to ensure efficient and effective utilization of funds and for the realisation of the objectives of the organisation or any institutions (Gustafsson & Parsson, 2010). In view of the role of budgeting for efficient and effective management of public funds, it is therefore prudent to research into budgeting techniques employed by tertiary institutions in Ghana to ascertain its effectiveness.

Statement of the Problem

Managing public funds has attracted attention around the globe with many countries making conscious and important efforts in strengthening public financial management application (Hedger & Renzio, 2010). The standard reforms on improving financial managements focused on comprehensiveness of budget operations, building better links between annual allocations and medium-term policy objectives, introducing performance indicators and management systems and computerising budget management and expenditure control (Hedger & Renzio, 2010).

Public funds play an important role in the development of a country or any public institution/organisation and it must be managed through best regulatory public financial management standards (World Bank, 2019). Public financial management relates to the way public organisation manages funds earned through revenue mobilization and how such funds are spent for the growth of an organization (World Bank, 2019). Public financial management begins with budget formulation and preparation based on how much money such public organisation earns from all possible sources, and how much money the orgainsation intends to spend by the finance officer.

A budget is a standard against which the actual performance can be compared and measured. It is a financial blueprint that quantifies an organisational plan for the future and communicates top management's expectations to managers and employees Achim (2009) cited in Pintea et al., (2013). According to Frederick (2001) cited in Imuezerua and Chinomona (2015), budget is a key management tool for planning, monitoring and controlling the finances of a project in an organisation. It estimates the incomes and expenditures for a set of projects or items within a period of time for an organisation. In reference to the above, budgeting is the key aspect to public financial management tool.

In spite of the importance of budget in public financial management, the Auditor General's reports in Ghana 2017 identified a trend of financial malpractices including outright thefts, embezzlements, misappropriation and misapplication of various funds including both internally and externally generated funds. The Auditor General reports also highlight weak internal revenue generation practices and need strong and enforceable rules and regulations in order to implement them effectively.

Oduro (2003) and Roberts (2003) cited in Scott (2017) also argued that the public financial management practices in Ghana do not meet the rules of interrelatedness amongst themselves, their relation to service delivery and consequently lead to allocative inefficiencies. Inkoom (2011) observed that the national budgeting and accounting systems are difficult to align with the accounting needs at the local levels thus creating problems in comparative reporting and auditing.

In Ghana, studies conducted on public financial management have focused more on National, Metropolitan, Municipal District Assemblies and Banks. Studies related to public financial management undertaken by the Ministry of Finance and Economic Planning and German Technical Cooperation were focused at the national level with different methodological approach (De-Renzio & Smith, 2005). Scott et al., (2018) also examined the role of budgeting practices in service delivery in the public sector of District Assemblies in Ghana, Pimpong and Laryea, (2016) studied on budgeting and its impact on financial performance; the case of non-banks financial institutions in Ghana. Bempah, (2015) also looked at the factors affecting budgeting and financial management practices of districts health directorates in Ghana.

In the same vain, William et al., (2019) examined practical challenges of budgeting and budgetary control from the perspective of a developing country, using the health service sector of Ghana as a case in point. Wonder et al., (2018) explored the role of budgeting and its effect on financial performance of listed manufacturing firms on the Ghana Stock Exchange. Edmund et al., (2015) examined budgeting and budgetary control as a management tool in Ghanaian Metropolitan Assemblies. Ackah et al., (2014) also looked at implementation of budget and its preparations in the private organization in Ahantaman Rural Bank in Ghana. Scott (2017) analyzed how public financial management regulatory frameworks, as practised in Ghana's District Assemblies influence service delivery.

At the tertiary institutions, public financial management in terms of policy based budgeting; credibility of budget, revenue generation and allocation in relation to public funds managements has not been much done. Public financial management is now considered critical in combating corruption, alleviating poverty, and ensuring the effective use of internal and external resources and financial accounting and reporting (Burger, 2008). In the light of this, the study sought to assess the role of budgeting in the management of public funds using the University of Energy and Natural Resources in Sunyani as a case study.

Purpose of the Study

The main purpose of the study is to examine the role budgeting plays in the management of public funds in tertiary institutions using University of Energy and Natural Resources (UENR) as a case study.

Objectives of the Study

The specific objectives of the study are to:

1. Identify the methods through which funds are made available to UENR.
2. Identify the kind of budgeting operated in UENR.
3. Assess the challenges faced in the preparation and implementation of their budgets.
4. Evaluate the extent to which budgetary controls are practised as a public financial management process.

Research Questions

The study is guided by the following research questions.

1. What are the methods through which funds are made available in UENR?
2. What kind of budgeting is operated in UENR?
3. What are the challenges faced in the preparation and implementation of their budgets?
4. What budgetary controls are practised as public financial management process?

Significant of the Study

This study gives reasons for the need to examine the role budgeting plays in the management of public funds in the University of Energy and Natural Resource, Sunyani (UENR) from its preparation stage to implementation. This study will be useful, for instance, in assisting the various stakeholders in making informed decisions with disbursement of funds. From the university's viewpoint, it may enable, for instance, identifying the various departments with in-depth knowledge of budgeting and its usefulness to improve the management of funds in the university.

The study will serve as a tool for stakeholders in the tertiary institutions in matters relating to their budgets geared at efficiently utilizing public funds. It will also enlighten stakeholders within the tertiary institutions on the role budgeting plays in the management of public funds. The findings of the study will also increase the theoretical understanding and knowledge for further research. It will seem plausible to the existing literature and be of immense importance to aid further research in the area.

Delimitation

The study focused only on the University of Energy and Natural Resources due to the fact that studies conducted in Ghana on role of budgeting in the management of public funds, university had not been examined. The target respondents of the study were employees at the university. The justification for this is that they are the core employees and understand the issues and activities of the university with regard to revenue mobilization and budgeting. Respondents were given questionnaires to provide their opinions, views and information on the topic.

Limitations

The constraints of the researcher in carrying out this study are as follows: Only quantitative research techniques were employed for the study. The researcher could not assess the qualitative views of the respondents due to time and financial resources.

Again, the study was limited to only primary data and not including secondary data due to time constraints. Also, the study extended the sample size for the study to include senior staff members and not restricted to only budget committee members at the University.

Some of the bottlenecks experienced were lack of cooperation of some respondents to fill correctly the questionnaire as they overlooked the significance of the study. However, lack of commitment from the participants was used by the researcher to take time to meet with all potential respondents and clarified to them the scope of the study and its significance to the University.

The respondents were also unwilling to give responses due to fear of the unknown and in that the information collected may be used to intimidate them or print a harmful image about them. Some respondents even turned down the request to fill questionnaires. This was mitigated by obtaining a letter of introduction from the Catholic University College of Ghana, Fiapre, which assured the respondents of the academic purpose of the study and that it would be treated with maximum confidentiality.

Definition of Terms

Public Financial Management:

It is the set of laws, rules, systems and processes used by sovereign nations (and sub-national governments), to mobilize revenue, allocate public funds, undertake public spending, account for funds and audit results (Lawson, 2015).

Budgeting:

It is a control practice, which played a key role in managing institutions by providing a roadmap for future activities and to set a series of goals to be achieved and the way to achieved them.

Public Fund:

Funds obtained through taxes that are used to help the public through goods and services. The funds are gathered and distributed on different levels such as the federal level, state level, and even local level

Organisation of the Study

This study is organized and presented in five chapters. Chapter One covers the background information on the topic under study, provides a statement of the problem, purpose of the study, research objectives and research questions. Also, the significance of the study and limitations of the study are captured in this chapter. Chapter Two is devoted to review of related literature. This chapter reviewed books, journals, and expert papers published by authorities on topics similar to the subject under study. Opinions expressed by earlier writers were made known at this stage. Chapter Three focused on research design, population of the study, sampling procedure, data collection instruments, methods of collecting and data analysis. Chapter Four, analysed and discussed the data collected. Finally, Chapter Five centered on the findings of the research, conclusions and recommendations for remedying the issues and problems identified.

CHAPTER TWO

LITERATURE REVIEW

This chapter focuses on the review of relevant literature on budgeting in the management of public funds. The literature review specifically comprises theoretical framework, conceptual framework, and empirical review on budgeting and public financial management.

Theoretical Framework

Theoretical framework involves the review of theories underlying the study. Theories covered in this section includes: Agency theory, budgeting and budget control theories and contingency theory.

Agency theory

The agency theory was developed by Jensen and Meckling (1976), cited in Mitzkus (2013), Han (2016) and it is described the agency theory as a contract under which one or more persons (the principal(s) or entity owner(s)/shareholder(s)) engage another person (the agent or manager) to perform some service on their behalf which involves delegating some decision making authority to the agent. The main purpose of agency theory concerns determining the most efficient contract governing the principal-agent relationship. Therefore, agency theory describes the conflict between managers and shareholders that arises when managers choose actions that are not in the best interest of shareholders in order to maximize their own utility. This moral hazard problem is caused by the existence of information asymmetry between managers and shareholders and can result in managers choosing investments with negative net present value. The current study finds agency theory relevant in explaining the effectiveness of budgeting as a management tool for organizational performance. In public institutions like tertiary universities, principals and staffs, act as agents for the owner of the institution which in this case happens to be the government. The agents are entrusted by the government to run these institutions on its behalf. Therefore, agents are mandated to formulate budgets and present to the government for funding. They are also required to publish the budget to all stakeholders in a transparent manner without any hidden selfish interest which may create the moral hazard in the public institution.

Budget and budgeting control theory

The budget and budgeting control theory as stated by Hirst (1987) cited in Ifrah et al., (2015) explains that an effective budgetary control solves an organization's need to plan and consider how to confront future potential risks and opportunities by establishing an efficient system of control. Hirst further defined the theory of budgeting as a detector of variances between organisational objectives and performance. Budgets are considered to be the core element of an efficient control process and consequently vital part of an organizational effectiveness

According to budgeting control theory, a good budgetary control system must be able to address the efficiency and effectiveness of the organization's expenditure. A good budget is determined by the level of income of an organisation (Robinson, 2009 cited in Ifrah et al., 2015). They argue that budgets can be used as an indicator of performance of managers. It is, therefore, essential for an organisation to understand its budgeting system and give priority to urgent matters that require attention to its control tools.

Contingency theory

The contingency theory proposes that there is no single approach to budgeting suitable for all organisations. Instead, the suitability of a particular approach is argued to be contingent upon characteristics of an organisation including its size, strategy, structure and also management's perception of uncertainty of the environment within which the organisation operates (King, et al., 2010). Therefore, it is worth argued that, tertiary institutions should not rely on one approach but rather, adapt different approaches in regard to the prevailing economic conditions. The study finds the contingency theory relevant in applying various techniques of budgeting for organizational/institutional performance with regard to prevailing conditions. In tertiary institutions, principals/budget formulators can swap through various forms of budgeting in handling their financial matters for performance. Principals/budget formulators looking at prevailing economic conditions are therefore allowed to apply the most prudent aspect of budgeting format to achieve institutional goals and objectives.

Conceptual Framework

Conceptual frameworkfor this study is based on collection of interrelated ideas or theories on budgeting in relation to financial management. The study conceptualized budget cycle dimensions as budget planning, budget development and budget implementation phases measured by items in figure 1 as independent variables, monitoring and budget control phases as mediating dimension to be enforced by administrators, budget supervisors to achieve better public financial management dimension measured by budgetary practices, auditing practices and regulatory frameworks as dependent variable.

The budget planning and development process address the kinds of budgets that the university employ in their budget preparations. The budget implementation and monitoring identifies the challenges the university faces in executing their budget practices and budgetary practices, auditing and regulatory frameworks examine public financial management process at the university. Figure 1 shows the conceptual framework.

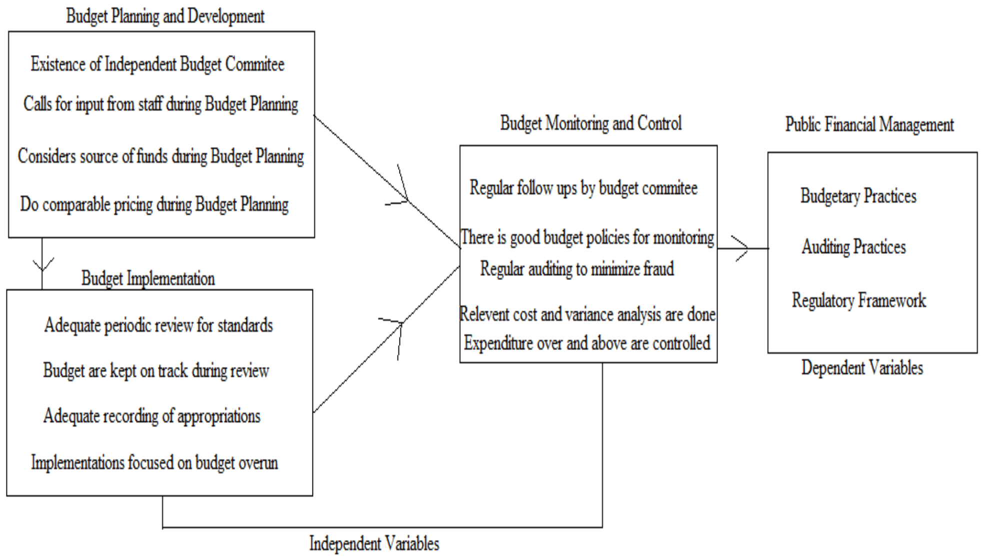

Figure 1: Diagrammatical representation of conceptual framework.

Source: Author's construct (2020)

The Concept of Budgeting and Sources of Funds

This section explains the concept of budget, budget cycle, types/methods of budget, role of budget in public financial management as well as sources of funds to public tertiary institutions and budget control systems

Definition of budget and budgeting

Achim (2009) as cited by Pintea et al., (2013) indicated that budgeting is the activity of recording financial or non-financial elements and further states that budget is a quantified, planned course of action over a definitive time period, comprising estimating inputs, costs of inputs along with associated outputs and revenues from outputs. According to Slebioda (2008 cited in Lu and Willoughby, 2015), “a budget expresses the strategic plans of an organisation for a defined period of time in quantifiable terms.” He (2011) posited that budget is an administrative document, that specifies the ways and means by which public services are provided, and establishes criteria by which the services are monitored, and evaluated. Budget is a communication tool that helps decision makers to make informed choices about the provision of services, capital assets, promotes stakeholder participation and allows public officials to interact and engage with citizens (Lapsley & Ríos, 2015). Ekholm and Wallin (2000) cited in Goddard and Mkasiwa (2016) indicated that budgeting is a control practice, which played a key role in managing institutions by providing a roadmap for future activities and to set a series of goals to be achieved and the way to achieved them. Merchant (1981) cited in Libby and Lindsay, (2010) explained budgeting system as “an integration of the flow of information and managerial activities which is normally an essential aspect of the planning for an organisation”. Siyanbola (2013) opined that budget is a financial plan summarizing the financial experience of the past, stating the current plan and projecting it over a specified period of time into future. According to Kiringai (2002) cited in Jones, (2008) budgeting is a set of procedures by which governments ration resources among claimants and control the amount each claimant spends. Within this context, the budget can be used for three purposes: as an instrument of economic policy; as a tool for economic management; and as an instrument for accountability. Surajkumar (2005) cited in Suberu, (2010)is of the position that, budget is an allocation mechanism that attempts to maximize the contribution of public expenditure to national welfare; this can be achieved by ensuring that the budget process successfully allocates scarce resources so that the marginal unit of expenditure achieves the same marginal benefit in each category of expenditure. Also, the Chartered Institute of Management Accountants (2005) indicates that a budget is a quantitative expression of a plan for a defined period of time. It may include planned sales volumes and revenues, resource quantities, costs and expenses, assets, liabilities and cash flows. It expresses strategic plans of business units, organisations, activities or events in measurable terms. Therefore, from the above definition of budget, budgeting can be defined as the process of estimating costs, revenues, and resources over a specified period, reflecting a reading of future financial conditions, goals and resource needs of an organisation.

Techniques or methods of budget

Incremental budget

Evans & Gold (1998) cited in Kamau et al, (2017) indicated that incremental budget is a type of budget which bases on the previous year‘s figures to effect adjustments in the current budget figures. The budget for the previous year was not challenged but focus was given to slight adjustments in financial expenditure. Little attempt is made to examine the soundness of spending problems on hand, and very little time is required to collect financial information and assessed options. It does not involve financial overview; and no long-term planning is embarked upon. Incremental budgeting consists of adjusting the previous year‘s values by adding a percentage on to cater for inflation or whatever, or even taking a percentage off, due to downsizing.

Fixed and flexible budget

Fixed budget is a budget technique mostly adopted by companies or organisations who place so much reliance on their forecasts. It is the method of budget which once made and accepted cannot be changed. On the other hand, flexible budgets are those which are flexible and changed based on the variability of the outcome of actions anticipated in time to come. They are immensely useful for companies or organisations, which operate in an ever-changing business environment. Using flexible budget ensures that a company or organisation is prepared, to some extent, to deal with the unexpected changes in events, and able to better guard itself against losses arising from such events.

Capital budget

Pandy (1999) cited in Cox (2017) indicated that capital budget is a technique of budgeting in which an organisation decides to invest available monetary resources in long-term projects/activities such as acquisition of new machinery, research and development projects, investment in new product lines, which are worth pursuing with the hope that future economic benefits will flow to the organisation within a period of time.

Cash budget

A cash budget is a budget which details the projected cash inflows and outflows and reflects the cash movement of an organisation. The cash inflows comprise cash sales and cash receipts from debtors, etc whilst cash outflows comprise cash purchases for goods and services, payment to creditors. The cash flow budget reflects the cash position of an organisation at the end of every month or financial year.

Zero based budget

Zero-based budget is a model of budgeting applied by management of organisations to perk up its finances. It helps in the re-examination of the organisation's finances and gives reasons for every expenditure that has been incurred. According to Drury (1997) cited in Han, (2016), zero-base budget is not based on previous year‘s expenses but commences at the decreased expenditure or base zero. There is a clean beginning each year, with little thought of the past, which is the budget is set to zero or from scratch for every activity in the organisation. Zero base budget technique enjoins management to scrutinize each process of an organisation's operations before resources are allocated.

Participative budget

Participative budgeting is the process of allowing employees throughout the organization who are impacted by the budget to be actively involved in the budget development process. This technique of budgeting can result in greater commitment to meet the budget and organisational goals. If employees are allowed to take part of the budget preparation, they will take the budget as their own rather than seeing it as an imposition on them, but it can also lead to delay due to lengthy discussions.

Master budget

A master budget puts all the functional budgets together and therefore it is made up of all subsidiary budgets. It usually comprises profit and loss account, balance sheet and cash flow statement. According to Lucey (1996) cited in Lu and Willoughby (2015) a master budget is a budget which gives a summary of all the supporting documents. Master budget process compels managers to connect their functions or units with others for realization of organisational objectives.

Functional budget

This is a budget which applies to a limited area of the organisation such as, department, division, project or other specific aspect of the organization. The most commonly used ones are; sales budget, purchase budget, production budget, selling and distribution budget, expense budget, labour cost budget, cash budget and capital expenditure budget.

Budget Cycle/Budgeting Phases

This section examined budget cycle which comprises five phases: the planning phase, development phase, implementation phase, monitoring and evaluation phase and the control phase (Jones, et al, 2010 cited in Kraan, 2017). Descriptions below shows detailed explanation of what activities are involved in each budgeting phase or process.

Planning phase

It involves the setting of goals and objectives of the budget. According to Hosack (2006) cited in Nayak and Samanta (2014), a well-planned budget focused on the primary goals of an organization and provides financial adaptability. Within this phase, the budgeting team is selected and priority areas are identified. Targets for each priority area are set and the timeline for meeting each target are also set during the budget planning phase. Planners should have knowledge on prior years' activities and the changes that are contemplated in the year(s) to come. This process should involve all stakeholders to seek their contributions and support for the identified priorities.

Budget development

This phase involves estimating the costs of attaining each goal and budget preparation expenses. Sources of revenues are identified during this phase as well planning for alternate scenarios. Resource mobilization team is selected during this phase and cash flow forecast are made Libby & Lindsay (2010) cited in Goddard, & Mkasiwa (2016). The last activity under this phase is securing the approval of the budget by the executive board.

Budget implementation

Budgetary implementation consists of tracking and registering operations concerning appropriations and their uses (Faleti & Myrick, 2012). It covers appropriations, apportionment, any increase or decrease in appropriations, accounting obligations, expenditures at the delivery stage, and payments. Adequate recording of appropriations such as; revisions in appropriations, transfers between appropriations, apportionment etc is prerequisite for good budget implementation. The budget implementation plan should be updated regularly to take into account decisions concerning appropriations.

Accounting obligations are essential in keeping budget implementation under control. They provide the basis for budget revisions. Decisions to increase or decrease appropriations and the preparation of cash plans must take into account obligation already made. For internal management, spending agencies need to follow up accurately the orders and the contracts they have awarded Faleti & Myrick (2012). Accounting for budgetary expenditures at the verification stage is important to manage an organization project implementation. Recording budgetary expenditures is also required for managing payables and contracts and it is a requirement of any accounting system that recognizes liabilities. Budget implementation should be reviewed periodically to ensure that programmes are implemented effectively and to identify any financial or policy slip-ups. The review of budget execution should cover financial, physical and other performance indicators. Cost increases due to inflation, unexpected difficulties, insufficient initial study of projects, and budget overruns must be identified so that adequate countermeasures can be prepared. A comprehensive midterm review of the implementation of the budget is needed, while the financial implementation of the budget should be reviewed monthly.

Budget monitoring

Monitoring and evaluation of budget implementation assumes critical importance. Fisher et al., (2002) cited in Lapsley & Ríos (2015) indicated that budget monitoring and evaluation helps in comparing actual revenues and expenditures and therefore determines the budget variance for activities budgeted for have been effectively accomplished as predetermined. It aids in efficient steering of projects towards value-added results and provides evidence of impact. It also helps organizations in being realistic about their expectations. However, the authors argue that the most critical argument for budgetary monitoring and evaluation is for ensuring transparency and accountability through organisational work, which forms the very essence of budget work.

Budget Control Practices and Public Financial Management

Budget control practice is the process of managing individual line items within a budget so that expenditures over and above the allocated amounts do not take place. This type of control is necessary in order to make sure that operational expenses do not exceed projected revenue for the period (Brown & Howard, 2013). There are several elements that go into the task of budget control, including the preparation of a realistic budget such as: linking budget development to corporate strategy/goals, align cost management efforts to budgeting, minimize the budget complexity and time and develop budgets that can easily accommodate change (flexibility of budgets), monitoring income levels, and engaging in comparison shopping before actually executing any purchases. The first step taken by organisations in effective budget control is the creation of a budget that is based on factual information regarding the revenue needed to operate effectively. Relevant cost and variance analysis information is fundamental to improve both the accuracy and the speed of a budget process (Brown & Howard, 2013). This means using information obtained from consumer markets regarding the prices of different goods and services. As part of the process, budget control involves making sure that fixed costs are accurately reflected within the budget, and any items that are considered flexible or floating are covered with a budget amount that reflects the standard and usual usage of the operation.

Once the workable budget is in place, the process of budget control focuses on making sure that expenditures for any particular item remain within the budgetary amount. At times, this may mean reducing expenditure in order to prevent going over the budget on a particular line Wilhelmi & Kleiner (1995) cited in Siyanbola (2013). If an organisation has a monthly budget of A dollars for staff feeding and consumed B dollars by the second week of that monthly, where A $> B$, budget control will require that the organization find ways to spend not more than the balance (A-B) dollars on feeding for the remainder of the month. This may mean adjusting the consumption of different foods, substituting higher priced purchases with other foods that are less costly. It evaluates managers basically on how they are able to achieve the budgeted plan as well as assessing every unit within the organisation through constant monitoring to achieve best use of allocated resources.

Role of Budget in Public Financial Management

According to Frederick, (2001) cited in Imuezerua and Chinomona, (2015), budget is a key management tool for planning, monitoring and controlling the finances of a project in an organisation. It estimates the income and expenditures for a set of projects or items within a period of time for an organisation.

Budget monitors income and expenditure of an organisation over a year, helps to determine adjustments need of an organisational goals, helps to forecast income and expenses for projects, provide basis for accountability and transparency (Lu & Willoughby, 2015).

Budgeting offers plain guiding principles for managers and is the most important means in which organisational objectives are communicated and translated into specific tasks Lucey (1996) cited in Lu & Willoughby (2015). Lucey further stated that budget is necessary to highlight financial implication of an organizational plans and defines the resources required to achieve these plans and provides a means of measuring and controlling the plans

Gustafsson and Parsson (2010) indicated that budgets are often used for distribution of responsibility. A study proved that during budgeting process, responsibilities are assigned to managers/employees. A follow-up is made to guarantee that the managers/employees lived up to their commitment. Further, budget is a tool to make managers responsible for their actions and to work in the best interest of the organization.

Some other benefits derived from budget includes; it facilitates reduction of cost, provides a basis on which management plan and formulate policies, provides an easy means for effective integration of activities of various departments, guarantees profit maximization, cost control and optimum utilization of resources, checks the continuous review of performance of different budget centers, assists in the management of efficient and economic production control, facilitates corrective actions, whenever there are deficiencies and weaknesses comparing actual performance with budget and directs management in research and development (Gustafsson & Parsson, 2010).

Challenges of Budget Preparation and Implementation.

According to Anderson, (2000) cited in Otieno, et al., (2016) indicated that the major challenge of budget preparation and implementation is mapping out the future, something that can never be done with perfect precision due to technological changes and the complexities of global competition.

Budget preparation is based on estimates or projected values hence forecasting cannot be considered to be an exact. Sometimes budget preparation and plans are made on the basis of inaccurate forecasts and uncertainties leading to future challenges. Due to changing circumstances budget may prove short or excess of actual requirements.

Budget system can be ineffective depending on the level of unwillingness of implementers, lack of co-operation and understanding among employees, lack of data, data in the budget office may be misleading, mismatch of actual expenditures and budgeted expenditures, Inadequate knowledge of macroeconomic constraints, poor estimates of programme costs, budget determined by spending-agency requests, budget with short-sighted policies, no anticipation of future events (Adongo et al., 2013).

Carter et al., (1997) cited in Edmund et al., (2015) identified a number of problems that could arise from budgeting. The budget could be seen as pressure devices imposed by management, thus resulting in bad labour relations and inaccurate record-keeping. It could also lead to departmental conflicts arising from disputes over resource allocation and departments blaming each other when targets are not met. It is also difficult to reconcile personal and corporate goals. Managers may overestimate costs so that they will not be blamed in the future should they overspend.

Prendergast (2000) cited in Ackah et al., (2014) identified three main problems associated with budgeting. First, a lot of guesswork is involved in the budgeting process. Second, budgets are increasingly inaccurate as a result of shorter product life cycles and rapidly changing business environment. Finally, the extent of budget gamesmanship. She argues that over the years, budgets have resulted in a conflict between top management and their subordinates. While top management attempts to “get the most out of their staff’, subordinates, on the other hand, work to build slack in their budgets in an effort to make budget numbers easier to attain. This could lead to budgetary slack.

Thomas (1998) cited in Han & Hong (2019) noted that the success of budgetary control systems depends, to a large extent, on the accuracy with which estimates are made, budget plans are based on estimates. Despite the fact that numerous statistical and other techniques may give satisfactory results, forecasting cannot be an exact science. It must also be adopted continuously to fit changing circumstances requiring that old methods must be discarded and replaced with new ones. It therefore takes a long period to adapt to a particular system of budgetary control.

Furthermore, one of the biggest problems with budgeting and budgetary control is that, it tends to promote an inward-looking, short-term culture that focuses on achieving a budget figure, rather than implementing business strategy. For all these reasons, it is believed that these weaknesses lead collectively towards business under performance and should therefore be dealt with.

Credibility of Budget

Public financial management processes are structured around the budget cycle. In many countries particularly low-income and fragile states, national budgets are often poor predictors of revenue and expenditure (Simson & Welham, 2014). There are many ways of approaching and determining whether a budget is 'credible' or not. The term could refer to the legitimacy of the process by which a budget has been created. In the same vein, budget credibility could refer to whether the allocations within the budget under consideration are technically appropriate to its stated goals. This means that a government whose stated priorities are to deliver a number of specific infrastructure projects might be accused of delivering a 'non-credible' budget if the spending allocations were focused on different infrastructure projects. Finally, a budget may be considered as credible even if its allocations are technically appropriate to stated government policy, and its overall revenue and expenditure forecasts fall within the limits of reasonable judgments and simply adhered to plan (outturns will match plan).

In this context, credibility is used to mean the degree of deviation between planned and actual spending over a twelve-month period rather than relating it to the concepts of legitimacy or technical appropriateness (Simson & Welham, 2014). A credible budget would have no deviation from plan over the course of a year. According to Public Expenditure and Financial Accountability (2005), non-credible budget may lead to shortfalls in the funding of priority expenditures. This may arise from expenditure ceiling cuts resulting from revenue shortfalls, under-estimation of the costs of the policy priorities or the non-compliance in the use of resources. Budgets where outturns deviate considerably from plan will be poor guides resulting in less effective delivery of public services and other desired outcomes (Simon & Welham, 2014). On the contrary, Aborisade (2008) indicated that budgets may not be implemented exactly as agreed in the annual budget. He argues, deviation of actual spending from the budget could arise as a result of executive abuse, conscious change of policy direction or fundamental economic or other changes beyond the control of the executive. Therefore, the degree of deviation should fall within reasonable limit.

Public Financial Management

A public organisation or institution development is influenced, in part, by how effectively its raises, manages, and expends public resources (Burger, 2008). There is wide agreement that effective institutions and systems of public financial management have a critical role to play in supporting implementation of policies of national development and poverty reduction (Public Expenditure Financial Accountability, 2005). A review of literature on public financial management showed that there are many ways to define public financial management (Pretorius & Pretorius, 2008). It has been defined by the Chartered Institute of Public Finance and Accountancy (CIPFA, 2010) as the system by which financial management resources are planned, directed and controlled to enable and influence the efficient and effective delivery of public service goals. This definition of public financial management applies to how to deal with the pressures of balancing limited resources with expanding demands and expectations, and with their obligation to spend the taxpayer funds carefully.

Alternatively, Simson, Sharma and Aziz (2011) defined public financial management as the mobilization of revenue, the allocation of these funds to various activities; expenditure and accounting for spent funds. This means that public financial management has to do with efficient use of funds. They further submitted that it is about taxing (raising revenue) and spending by the government, and the impacts this has on resource allocation and income distribution.

Furthermore, the Department of Budget and Management (2012) stresses that public financial management encourage the local government to generate its own sources of revenues and ensure availability of resources to meet the people’s priority needs. At the same time, it encourages public sector to manage limited financial resources to ensure economy and efficiency in the delivery of outputs required to achieve desired outcomes that will serve the needs of the community International Federation of Accountants (IFAC) (2012). It is through the public financial management system that national and district policies are transformed into actions and services are delivered. It provides for collective decision-making, for citizens to express their preferences and fiscal transparency.

Andjun (2010) cited in Scott (2017) argued that efficient public finance management is an integral component of economic growth and has the ability to reduce poverty in a sustainable manner. Andjun further argues that effective public administration systems are necessary so that increased financial resources can be turned into concrete welfare services and measures that promote growth.

Ahmad (2013) cited in Sarkar et al., (2014) discussed the processes related to efficient management of funds and describes public financial management as consisting of five key sub-sectors identified as budgeting controls, financial reporting, auditing practices, regulatory framework and revenue collection. Further, Imuezerua and Chinomona (2015) confirmed that all the identified sub-sectors of public financial management are important in a development context and must be improved in order for government to implement its development objectives. It is further stated that, these sub-sectors exist as a system of related components and that reform or development of one sub-sector is dependent on and conditioned on the state of the other components if development objectives are to be met.

Several authors globally (Ahmad, 2005; Andersen & Isaksen, 2003; Broback & Sjolander, 2001; Ojo, 2009 cited in Simson, Sharma, & Aziz, 2011) based on the systems approach note that although there is no succinct definition of public financial management there are six key core components which emerge. The six components are planning and budgeting, revenue mobilization, public expenditure and payments, financial reporting, auditing and regulations framework.

Objective of Public Financial Management

The World Bank's Handbook (World Bank, 2011); Sjolander et al., (2007) as cited in Department of Budget and Management (2012) outlined the three main objectives of public financial management. Firstly, aggregate fiscal discipline (expenditure control): According to Sjolander et al., (2007), aggregate fiscal discipline ensures that public spending is in line with available resources. They argue that budget totals should be the result of explicit enforced decisions. Budget should not merely accommodate spending demands. Failure to achieve this objective will endanger macroeconomic stability. These totals should be set before individuals spending decisions are made and should be sustainable over the medium term and beyond.

Secondly, allocation of resources in accordance with strategic priorities (Strategic allocation): Expenditure should be based on public policy priorities and on effectiveness of public programmes (Department of Budget and Management, 2012). It is about allocating resources effectively between different expenditure areas in pursuit of the desired development objectives. It entails the strategic shifting of resources from less effective uses to more effective uses. Finally, efficient and effective use of resources in the implementation of strategic priorities: Sjolander et al., (2007) cited in Department of Budget and Management (2012) stressed that resources are used in such a way to maximize value for money. There should be operational management to ensure both efficiency (minimizing cost per unit of output) and effectiveness (achieving the outcome for which the output is intended).

Sources of Funds to Tertiary Institutions Ghana

Revenue mobilization is the act of marshaling, assembling, and organizing financial contributions from all incomes accruing from identifiable sources in an economic setting. Every educational institution, whether profit or non-profit organization, government or non-governmental agencies, requires money to achieve its objectives. So are the tertiary institution as a service provider and non-profit making organisation. The ability and the success of the tertiary institutions in Ghana to achieve their objectives of providing high quality education efficiently and effectively depend on the revenue available to the universities and how reliable and adequate the sources are (Twene, 2014). The main sources of funds available to the tertiary institutions in Ghana are:

Government of Ghana

Education Sector Performance Report (ESPR, 2012 cited Twene 2014) noted that higher education in Ghana is mainly finance by the Ministry of Education and the Ghana Education Trust Fund (GETFund). This report was in line with (Benneh, 2002) who indicated that overwhelming majority of basic research funding in universities come from the public purse. The government of Ghana is the main financier of tertiary institutions. Hence, most of the funds required for the administration of the universities come from the government. Government of Ghana funds are the money (subventions) received from the government to support the running of universities. These monies are received quarterly as part of government commitment to ensure quality and affordable education to the citizenry. The Government of Ghana funds is made up of Administrative Grant, Scholarships and GET Fund.

Internally generated funds

Internally Generated Funds (IGF) by tertiary institutions in their quest of providing better services to their stakeholders, generate revenue through the following activities such as academic user fees, admission of graduate students, research for local industries, admission of international students and building technological capacity for local entrepreneurs and small scale business ESPR (2012). Revenue generated internally are used to run the affairs of the university expenses.

Donations/external funds

Maassen (2010) explained external funders to mean a range of public agencies and private foundations who contribute directly to the functioning of higher education institutions by funding projects implemented by university academic staff. They include national and supra-national research councils, international agencies; such as the World Bank, national development cooperation agencies, non-governmental organisations, multilateral and bilateral donors, alumni associations, philanthropic societies and private enterprises that fund research/consultancy activities from academic university staff. These moneys usually come in as donor support for the universities. These donations come from, for instance, alumni associations, philanthropic societies, individuals etc.

Empirical Review

William et al., (2019) qualitatively analysed the practical challenges of budgeting and budgetary control from the perspective of a developing country, using the health service sector of Ghana as a case in point. The paper argues that harnessing the opportunities for improvement inherent in systematized budgeting and budgetary control could produce synergistic effects in the face of the apparent challenges.

Sarkar, et al (2014) used secondary sources of data to appraise both the revenue and development budget allocation for education in Bangladesh compared to other South Asian countries giving special emphasis to higher education. It was observed that insufficient budget for education in Bangladesh had a negative impact on expansion of higher education and the human development index. The results further revealed that inappropriate distribution among different subheads and noncompliance of the guideline for implementation of a higher education budget were two serious problems indentified.

Scott and Enu-Kwesi (2018) examined and analysed the role played by budgeting as practiced in the district assemblies of Ghana towards service delivery by using mixed-methods. The findings showed that citizens rated service delivery poorly, while district assembly officials rated service delivery as satisfactory. The study established that budgeting practices had positive significant influence on public financial management leading to service delivery.

Imuezerua and Chinomona (2015) analysed the budgeting and service delivery patterns of Sedibeng Municipality in South Africa. Thirty-four participants comprising heads of department in the budget and integrated development plan, managers, assistant managers and municipal officials involved with budget preparation and integrated development plan within the municipality provided data for the analysis. The study found skills inadequacy among budgeting staff as having led to the poor services offered by the municipalities, which could explain the service delivery protests which have been experienced in the South African Municipalities

Nayak and Samanta (2014) evaluated the role of public participation on decision making in the budget making process in West Bengal, India. The study revealed that all forms of participation offered the citizens a forum to 'raise their voices' on matters concerning projects in their localities.

Gonçalves (2014) investigated whether the use of participatory budgeting in Brazilian municipalities during 1990–2004 affected the expenditures pattern and had any impact on living conditions. The authors used econometric analysis, specifically panel data regression, based on data for the period 1990 to 2004. They found that adoption of participatory budgeting is associated with increased expenditure on basic sanitation and health services thus ensuring better water and sewage connections, waste removal in addition to significant reduction in the infant mortality rates. The study further revealed that budgeting is more effective in determining the quality of services delivered when the citizens are more actively engaged and participate in the process.

Marcarmick and Hardcastle (2013) carried out a research to ascertain how budgetary control and corporate financial performance in government parastatals in Europe for a period of Ten (10) years using 40 government parastatals. Secondary data and regression model were applied to analyse independents and dependent variables for the study. Findings revealed that budgetary controls and performance of parastatals are positively related.

A research was carried on application of budgets as a management tool for effective performance in University of Calabar, Nigeria by Ekpenyong (2014). The target population was the university staff. The study used survey inferential design to collect data using a sample of 250 members of senior staff, comprising of 120 academic staff and 130 non-academic staff. The data was analysed statistically using mean and independent t-test statistics. It was concluded that application of budgets in the University of Calabar as a management performance tool was effective.

An investigation to ascertain the relationship between budgeting and performance in remittance companies in Mogadishu, Somalia was carried by Abdirisag and Ali (2013). The target population was seven (7) remittance companies in Somalia. The study used judgmental sampling technique of non-probability sampling to select a sample of 103. The result revealed that moderate relationship between budgeting and remittance companies' performance existed. Similarly, a study to determine how budgets and budgetary control enhances financial performance of an electric supply company limited in Tanzania for the period 2006-2012 was done by Marygoreth (2014) cited in Moore and Petrin, (2017). A case study design was used and it was revealed that budget and budgetary control contributes much to the effectiveness and performance of the company.

Kimini (2014) performed a research to examine effects of budgetary on performance of non-governmental organisations in Kenya. The study target population was 7,127 obtaining a sample of thirty (30) non-governmental organisations. The study used judgmental sampling technique and descriptive statistics methods. The results revealed that there existed a slight positive relationship between budgetary controls and financial performance of non-governmental organisations

Otieno, et al (2016) determined the effects of Financial Budgeting in the Management of Public Secondary Schools in Uriri Sub-County, Kenya**.** The study employed survey design comprising of 18 public secondary schools. Purposive sampling was employed in the study to select a sample of 16 principals, 16 parent teacher association chairpersons and 64 boards of management members and collected data by using questionnaires. Findings revealed that there was a problem in cooperation among the members caused by lack of team work, inadequate financial knowledge and lack of regular financial training and budgeting.

Wonder et al, (2018) performed a study to explored the role of budgeting and its effect on financial performance of listed manufacturing firms on the Ghana Stock Exchange. Both cross-sectional and convenient sampling techniques were used to select fifty-one (51) respondents as the sample size of the study. Correlation matrix was used to establish a positive relationship between budgeting and financial performance. The study discovered that budgeting plays imperative roles in the financial performance of listed manufacturing firms. The study again unveiled that there is a strong positive correlation between budgeting and financial performance. The study also concluded that planning; monitoring and control; coordination and evaluation play a vital role and had a positive effect on the financial performance of manufacturing firms.

Edmund et al, (2015) examined budgeting and budgetary control as a management tool in Ghanaian Metropolitan Assemblies with the view to find out the importance attached by metropolitan, municipal and district assemblies in Ghana to how budgets are prepared and implemented, benefits and problems associated with budgeting and the extent at which budget variance reports are used as a performance measure. The findings of the study revealed that, metropolitan assemblies prepare budgets and plans to guide their activities and operations and that there is generally a high level of budget participation. It again revealed that metropolitan assemblies used a rigorous budgetary control practices in its operations and attaches much importance to budgets and budgetary control as vital tool to aid them in effective and efficient management of their operations.

Ackah et al., (2014) conducted a study about implementation of budget and its preparations in the private organisation (Ahantaman Rural Bank Ltd in Ghana). The study revealed that to address issues of delay in budget implementation there should be appropriate persons to constitute the budget committee. The study again revealed that there should be authority and different group of people in place to check proper and faster implementation of the budget. The study further revealed that authority should institute training programmes for budgeting officers to update their knowledge and facilitate their work and identify deviations and taking corrective actions. Lastly, there should be in place some reward scheme for budget officers who perform and discharge their work with proficiency. Also, budget committee members should be independent of what happen at their various departments. This will serve as a motivational tool for budget officers and even inspire others to work hard.

Kabiru, Dandago and Adah (2013) conducted a study to determine the relevance of variance analysis in managerial cost control within the context of Nigeria. The study found out that the efficient or realistic standards are those standards that are set by the effort of operator/technical managers and top management of an organization so that they can lead to greater commitment towards meeting the targets set therein, the standard to be adopted should be the one that will assist management to attain its strategic goals with less cost through control of costs, reviewing of the variances should focus on the most concerned areas so that management can become aware of any changes in the organisation, that management must create time to investigate cost variances that require investigation for control purposes in order to improve the efficiency of an organisation and that variances should be disposed away as soon as possible to achieve the opportunities for corrections.

Rehman et al. (2011) studied the impact of zero-based budgeting on employee commitment. The study based upon data collected from two big cities of Pakistan. The objective of the research was to find out if there was any relation between zero-based budgeting and employee commitment. Findings of the research were that zero based budgeting has moderate effect on employee commitment in an organisation.

Meliano (2011) surveyed management perception on the usefulness of zero based budgeting: evidence from non-governmental organizations in Kenya. The objective was to establish the managerial perception on the usefulness of zero based budgeting among nongovernmental organizations in Kenya. Findings revealed that zero based budgeting is very useful in Non-Governmental Organizations in Kenya given that it has flexibility, communicate corporate goals, cost minimization and knowledge sharing.

Ekanem (2014) surveyed zero-based budgeting as a management tool for effective university budget implementation in university of Calabar, Nigeria. Results revealed that the application of zero-base budgeting for university budget implementation was effective; some factors inhibited the application of zero-based budgeting while the application of zero- based budgeting was dependent on university senior staff. The study again revealed that zero-based budgeting was credible and rewarding to the university budget implementation.

Aruomoaghe & Agbo (2013) investigated the application of a variance analysis as a tool for performance evaluation with a particular focus on the cost and benefit associated with its utilization as a performance evaluation tool. The objectives of the study were to ensure that the departmental managers don't deviate from the budgeted standards put in place in the organisation as whole. The study found out that it is reasonable for managers to exercise caution in the use of variance analysis so that the correct decisions will be made. Also, managers should exercise considerable care in their use of a standard cost system and it is particularly important that managers go out of their way to focus on the positive, rather than just on the negative, and to be aware of possible unintended consequences of the choices they make on their organisational objectives.

Nawaiseh et al., (2014) carried out an empirical assessment of measuring the extent of implementing responsibility accounting rudiments in Jordanian Industrial Companies listed at Amman Stock Exchange. The objectives of the study were to identify the extent the Jordanian Industrial Companies fully implement responsibility accounting, to disclose the obstacles that may abstain full implementation of responsibility accounting rudiments. The study recommended the necessity for public shareholding companies to give generally more interest to managerial accounting, specifically for responsibility accounting by recruiting professionals in accounting departments.

Ifrah et al, (2015) examined how budgetary control can impact on the performance of Dara-salaam Bank. The objectives were to find out how responsibility accounting influences organizational performance, to determine whether variance cost analysis affects organisational performance and to establish how zero based budgeting affects organisational performance. Findings on effectiveness of budgetary control techniques showed that responsibility accounting, variance analysis and zero based budgeting enhances budget control and improves efficiency and productively. Further, it was established that Variance cost analysis alone may not affect performance of an organization but it will influence decision making which will in turn affect organisational performance. The study further revealed that organisational staff need to be trained on the existing budgetary control techniques to enhance business decision making and improve efficiency and productivity.

Scott (2017) analysed how public financial management regulatory frameworks, as practised in Ghana's district assemblies influence service delivery by adopting mixed methods research design. Findings showed that citizens rated service delivery poorly, while district assembly officials rated service delivery as satisfactory. The study revealed that Public Financial Management Regulatory Framework practices did not have significant influence on service delivery. It is recommended that DAs should train their staff to enhance the understanding of PFM policies, laws and regulations so as to perform their duties within the regulatory framework for efficiency. There is also need for constitutional review to ensure bigger share of the District Assemblies Common Fund (DACF). Such amendments should also ensure efficient and timely transfer of funds to the DAs.

Summary of Literature Review

Various theoretical frameworks have attempted to explain the role of budgeting in the management of public funds. The researcher has discussed three theories under theoretical framework namely:- Agency theory, budget and budgeting control theory and contingency theory. The researcher has also discussed budgetary types, budgetary controls, revenue mobilization, challenges of budget implementation, public financial managements and objective of public financial management. Some empirical studies carried on both global and local context have been covered and their findings discussed under this chapter.

The underlying literature on both international and local on role of budgetary and management of public funds has identified some lapses in budgetary process in managing public funds. Again, local studies focused their work on national, metropolitan, municipals district assemblies, banks and some few health directorates to the neglect of tertiary institutions in Ghana specifically University of Energy and Natural Resource, Sunyani as a gap. The researcher then focused on this area of study where no empirical study had been stated.

CHAPTER THREE

RESEARCH METHODS

This chapter looks at the research methods that was used to undertake the study. Research methods entail research design, study area, population, sampling and sampling techniques, data collection instrument, data collection procedure, research instrument, validity and reliability, data analysis and ethical issues.

Research Design

Research design is a plan which specifies how data relating to given problem is collected and analyzed. It provides an outline for the conduct of any study Amadahe & Gyamfi (2016). The study adopted non experimental research design (Case study approach) and cross sectional survey method for the data collection. Case study involves investigating an institution or a social unit to determine and reports the way things are Amadahe & Gyamfi (2016). The research design employed was to examine the sources of funds at the University of Energy and Natural Resources, kinds of budgeting operated at the university, assess challenges of budgeting preparation and implantation and their effects on public financial managements. Case study design was used because the study intended to explore and probe to bring more light into sources of funds, budget practices, and their effect on public financial management at the university for future research hypothesis.

Study Area

University of Energy and Natural Resources (UENR) is the study area of this study. University of Energy and Natural Resources (UENR) was established by an Act of Parliament, Act 830, 2011 on December 31, 2011. The

University is a public funded national institution which seeks to provide leadership and management of energy and natural resources and be a centre of excellence in these critical areas. The University approaches its programmes and research emphasizing interdisciplinary collaboration and taking into account, areas such as economics, law and policy, management, science, technology and engineering as well as social and political issues affecting energy and natural resources. When fully operational, the University would have six schools. These are: School of Engineering; School of Sciences; School of Geosciences; School of Agriculture and Technology; School of Natural Resources; and School of Graduate Studies

The University is a multi-campus set-up and currently has three campuses located in Sunyani, Nsoatre and Dormaa Ahenkro. The Sunyani campus which is approximately 85 acres is home to the School of Sciences; School of Natural Resources; School of Graduate Studies and the Main Administration of the University as well as the University Library.

The School of Engineering is located at the Nsoatre campus with land size of approximately 2,000 acres. The School of Agriculture and Technology and Geosciences is situated at DormaaAhenkro on approximately 2000 acres of land. The University has four field training stations in Mim, Bronsankoro and Kyeraa for the Agriculture and Forest Resources Management students and one at Bui for Engineering students. The University hopes to become a centre of excellence for the training of scientists and technologians for Ghana and beyond.

Population

Amedahe and Gyamfi (2016) define a population as a group of individuals, objects, or items from which samples are taken for measurement or as the entire aggregation of cases that meet a designated set of criteria. The target population of this study was made up of senior staff members and those involve in financial matters at the departments at University of Energy and Natural Resources, Sunyani. The target population of the study is shown in table 1.

Table 1: Population of the Study

Departments/Schools	Population Size
Registry/Administration	361
School of Natural Resources	56
School of Management Sciences and Law	36
School of Engineering	60
School of Agriculture	34
School of Geographic Sciences	10
School of Sciences	71
Total	628

Source: Field survey (2020)

Sample and Sampling Procedure

Sampling is the process of selecting a portion of population to represent the entire population (Amedahe & Gyamfi, 2016). The study used a sample size of 244 senior staffs and staffs that are involves in financial issues at the University constituting 38.85% of the population. According to Amadehe and Gyimah (2016) quantitative studies with sample size of 5% to 20% of the population is sufficient for generalization. Stratified and simple random sampling techniques were used to compute and select respondents respectively. This sample size was used in the sense that at the University, the budget committee meets and set budget ceiling for all departments. Afterward the templates of the budget lines are sent to all the departments to allocate their needs for the academic year. Then, the various departments would have meeting to discussed the budget lines and fill in with their ceiling in mind. Afterwards the budget committee meets and evaluates the inputs from various departments for acceptance. Table 2 shows the sample of the study.

Table 2: Sample Size of the Study

Departments/Schools	Stratum Sample Size
Registry/Administration	140
School of Natural Resources	22
School of Management Sciences and Law	14
School of Engineering	23
School of Agriculture	13
School of Geographic Sciences	4
School of Sciences	28
Total	244

Source: Field survey (2020)

Data Collection Instruments

The study adopted primary sources of data collection techniques. Primary sources are original sources from which the researcher directly collects data that have not been collected previously. Primary data were collected through questionnaires related to the variables in the research objectives. The questionnaires were designed into sections. Section A and B of the questionnaire consist of respondents' characteristics and sources of funds respectively at the University. Section C through to E contains Likert-type items relating to methods of budgeting instruments', challenges of budget preparation and implementation, budget controls practices at the university (Anderson, 2000 cited in Otieno, et al 2016).

All items were on a scale rating from 1= strongly disagree to 5 = strongly agree to assess respondents' opinions. Likert scale type measurement was adopted in the sense that, according to Taherdoost (2016), it is psychometrics scale devised in order to measure and quantify subjective preferential thinking and feeling of a subject through social interactions. Validity of the questionnaires was assessed by allowing expert knowledgeable in budgetary control and public financial management to look at the items and agree that the tests are valid measure of the concept which it is being measure. Reliability of the questionnaire items was established using a pre- test after collecting data from subjects not included in the sample. Data collected from pre- test were analysed and their reliability was tested for internal consistency. Table 3 shows the Cronbach's alpha of all constructs greater than 0.7.

Table 3: Reliability of Questionnaire Items

Construct	No. of Items	Cronbach's alpha (α)
Government of Ghana Funds	3	0.76
Internal Generated Funds	6	0.70
External Donation/Source	5	0.79
Kinds of Budgets	8	0.72
Challenges of Budget Preparation and Implementations	13	0.81
Budget Planning and Development	6	0.81
Budget Implementations	4	0.78
Budget Monitoring and Controls	7	0.71
Budget Practices	5	0.79
Auditing Practices	6	0.73
Regulatory Framework	4	0.71
Overall Cronbach' alpha (α)		0.76

Source: Field survey (2020)

Data Collection Procedures

Questionnaire was sent personally to the respondents in order to afford the researcher the opportunity to establish rapport with the respondents within the period of data collection. Questionnaires were given to the respondents on the second visit in May 25th after the researcher had already introduced himself to the authorities of the university. The researcher took advantage to brief the respondents on the objective of the study and also explained each item on the questionnaire, as well as offer any assistance that is needed by the respondents who needed it. A time lapse of four days was allowed to enable respondents to complete the questionnaires. The respondents were assured confidentiality of the information they provided.

Data Analysis

Data collected were edited to minimize errors, coded before analyzing which facilitated easy identification. Data collected were analysed using Statistical Product for Service Solution (SPSS) version 23. Percentages were used to analyse the socio-demographic characteristics of the respondents' means and standard deviation were employed to analyse all the research questions. Mean was used on the basis that it is the measures of central tendency and it describes the nature or condition and the degree in detail of the present situation of the data. Standard deviation employed measures the homogenous or the heterogeneous responses of the respondents around the means. Bar chart depicts pictorially the results of the study in graphical forms.

Ethical Consideration

The researcher followed ethical standards as expected in research studies. Respondents were assured that participation is voluntary and that they can withdraw their participation willingly. To avoid invasion of their privacy, their consents were sought first. As respondents are more inclined to share the perception that their privacy is been invaded, they were assured of confidentiality of data. Again, respondents were assured that data collected would be limited to academic purposes.

Chapter Summary

This study employed case study as a research design. The general population for the study was all department members of the University of Energy and Natural Resources, Sunyani. Stratified sampling techniques were used to compute respondents to form the sample size. Purposive non probability sampling procedure was employed to identify respondents with inform knowledge of university budget preparation to respond to issues of budgeting practices at the university. Percentages were used to analyse the socio-demographic characteristics of the respondents. Means, standard deviation and bar chart were employed to analyse all the research questions.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the findings and discusses them in the light of the research questions that guided the study. The specific objectives of the study were to identify the methods through which funds are made available to the university, identify the kind of budgeting operated in the university, assess the challenges faced in the preparation and implementation of the budget and to evaluate the extent to which budgetary controls are practisedas a financial management process.

The chapter begins with the bio-demographic data of the respondents, followed by sections that answer the research questions of the study. The findings were presented usingdescriptive statistics, frequencies, percentages, mean and standard deviations, tables and bar charts.

Socio-Demographic Characteristics

This section presents the socio-demography characteristics of the respondents and the variables were sex, age and qualifications as shown in table 4

Table 4: Socio-Demographic Characteristics of Respondents

Variables	Category	Frequency	Percentages
Gender	Male	139	53.0
	Female	105	43.0
Age	20 – 29	55	22.5
	30 – 39	98	40.2
	40 – 49	79	32.4
	50 – 59	12	4.9
Qualification	Diploma	9	3.7
	Degree	73	29.9
	Masters	100	41.0
	PhD	62	25.4

Source: Field survey (2020)

Table 4 revealed that 139 (53%) of the respondents were males while 105 representing (43%) were females, which is a clear case of sex imbalance of the respondents.

On age distribution of the respondents, Table 4 indicates that the majority of the respondents were relatively young, within the age bracket of 30-39, representing 40.2% of the respondents, 55 of them representing 22.5% were at age range of 20-29, 79 of the respondents representing 32.4% were at age range of 40-49 and 12 of them representing 4.9% were at age range of 50-59.

With respect to the level of qualification, the results indicate that the majority of the respondents, 100 representing 41% have master’s degree, 73 representing 29.9% have first degree, 62 representing 25.4% have PhD and 9 representing 3.7% have diploma.

Methods at which Funds are made Available at the University

To identify the methods through which funds are made available to the university, respondents were asked to rate their levels of agreement using a Likert scale questions of 1-5 on methods of sourcing funds; government of Ghana funds, internal generated funds, external donation/source, with 1 showing least rating and 5 showing strong rating. For analysis purposes, the mean and standard deviation of the responses given by the respondents were computed. These were analyzed with mean ranks. The mean score closer to 4 and above were interpreted as agreement, those closer to 2 and below were interpreted as disagreement, whereas those equal to or closer to 3 were neutral. The results are shown in table 5 to 7.

Table 5: Government of Ghana

Variables	Mean	Std
The university source of funding is from Ministry of Education.	3.82	1.28
Ghana Education Trust fund provide fund to the university	3.96	0.98
Grants from other governmental organisations.	3.87	0.82
Grand Mean	3.88	1.03

Source: Field survey (2020)

Results as shown in table 5 indicated that Ghana Education Trust fund was rated as the most influential source of funds for the university. It obtained a mean score of 3.96 and a standard deviation value of 0.98 revealing homogeneity of views expressed by the respondents. Grants from other governmental organisations with regard to source of funds, recorded a mean score of 3.87, which signified respondents' agreement. The standard deviation value was 0.82, which demonstrated the fact that respondents share similar views.

The Ministry of Education as a source of funding was rated third with a mean score of 3.82 and a standard deviation score of 1.28 shown a minimal divergence of views expressed by the respondents. The grand mean and standard deviation values were 3.88 and 1.03 respectively. This result shows that respondent at the university were of the view that Ministry of Education, Ghana Education Trust Funds and other governmental organisations provide funds to the university.

Table 6: Internal Generated Funds

Variables	Mean	Std
The university gets revenue from academic facility user fees.	4.07	0.84
The university gets funds from fees of undergraduate part time.	4.09	0.90
The university gets funds from fees of graduate students	4.18	0.86
The university gets from research for local industries	3.22	1.06
The university gets funds from research for small scale business	2.77	1.04
The university gets funds from ICT fees, students and ID card	3.71	1.02
Grand Mean	3.67	0.95

Source: Field survey (2020)

Table 6 summarizes source of funds to the university with respect to internal generated funds. It indicated that fees of graduate students were rated as the most influential internal source of funds at the university. It obtained a mean score of 4.18 and a standard deviation of 0.86 revealing respondent homogeneous opinion.

Fees from undergraduate part time students were rated second with mean score of 4.09 and standard deviation of 0.90, which demonstrated a close divergence of views of respondents. Academic facility user fees was identified as the third source with mean score of 4.07 and standard deviation 0.84 showing a close views expressed by the respondents.

The fourth rated source of funds was from information, communication and technology fees, students identity cards etc with means 3.71 and standard deviations 1.02. The university gets funds from research for local industries were ranked fifth. It recorded a mean score of 3.22 indicating respondent opinions close to midway agreement and a standard deviation of 1.06, which revealed respondents' opinions relatively spread around the mean indicating heterogeneous views. Also, funds from research for small scale business was considered sixth source of funds. It attracted a mean value of 2.77 and standard deviation of 1.04. The grand mean and standard deviation of internally generated funds were 3.67 and 0.95. This results confirm Education Sector Performance Report (ESPR, 2012 cited in Twene, 2014) indicates that academic user fee, admission of graduate students and research for local industries are sources of revenues to tertiary institutions.

Table 7: External Donations/Source

Variables	Mean	Std
The university gets funds from non-governmental organisation.	3.50	0.75
The university gets funds from Alumni associations.	3.28	1.04
The university gets funds from external research consultancy.	3.56	0.85
The university gets funds from World Bank	3.67	0.90
The university gets funds from local authorities, chiefs	3.18	1.09
Grand Mean	3.44	0.93

Source: Field survey (2020)

Table 7 summarizes source of funds to the university with respect to external sources. It indicated that the university gets funds from World Bank were rated as the most influential external source of funds at the university. It obtained a mean score of 3.67 and a standard deviation of 0.90 revealing respondent’s homogeneous opinion.

The university gets funds from external research consultancy were rated second with mean score of 3.56 and standard deviation of 0.85, which demonstrated high homogeneous respondent’s views. Non-governmental organisation was identified as the third external source with mean score of 3.50 and standard deviation 0.75 showing a close viewexpressed by the respondents.

The fourth rated external source of funds was from Alumni associations with means 3.28 and standard deviations 1.04 indicating divergence respondents’ views. The university gets funds from local authorities, chiefs and other was ranked fifth. It recorded a mean score of 3.18 indicating respondent opinions close to midway agreement and a standard deviation of 1.09, which revealed respondents’ opinions relatively spread around the mean indicating heterogeneous views. The grand mean and standard deviation of external sources of funds to the university was 3.44 and 0.93. These results corroborate with Maassen’s (2010) discovering that external funds contribute directly by private and non-governmental organisation to the functioning of higher education institutions.

Figure 3 shows the bar chart of sources of funds at the university. Bar chart below shows that Government funding emerge as a prevailing source of funds at the university indicating that the university gets much of funds from Government.

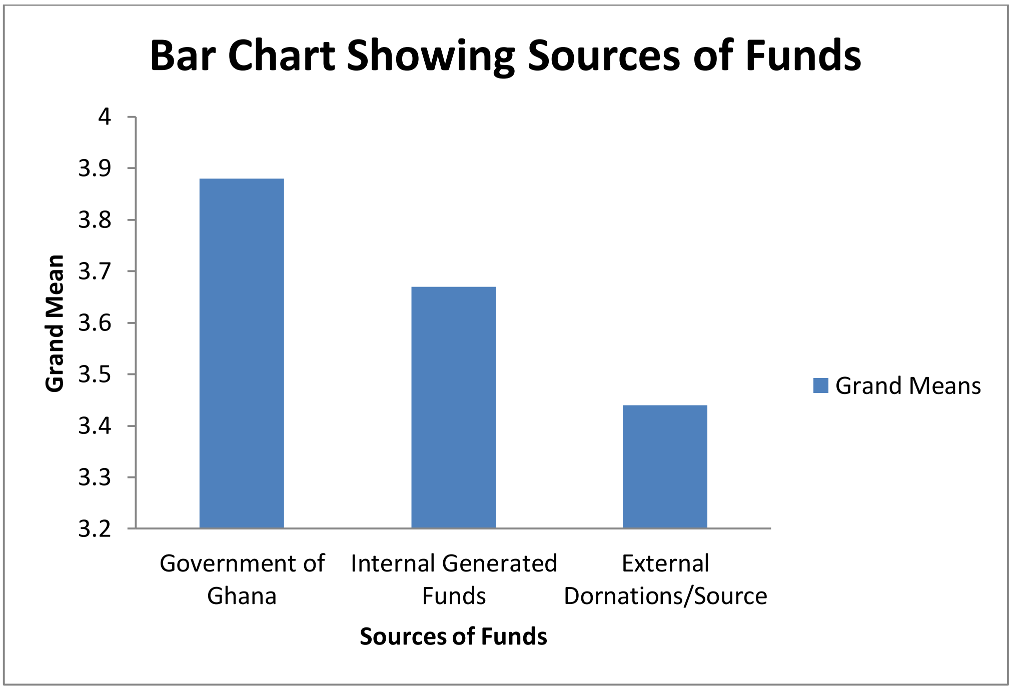

Figure 2: Bar chart showing sources of funds at the university

Source: Field survey (2020)

Kinds of Budgeting Operated at the University

This section assesses kinds of budget operating at the university. Respondents were asked to rate their levels of agreement using a Likert scale questions of 1-5 with 1 showing least agreement and 5 showing strong agreement. For analysis purposes, the mean and standard deviation of the responses given by the respondents were computed. These were analyzed with mean ranks. The mean score closer to 4 and above were interpreted as agreement, those closer to 2 and below were interpreted as disagreement, whereas those equal to or closer to 3 were neutral.

Table 8: Kinds of Budgets

Variables	Mean	Std
Incremental Budget	3.44	0.69
Fixed Budget	2.48	1.15
Flexible Budget	3.57	1.50
Zero-based budget	4.14	0.86
Participative Budget	3.88	0.85
Cash Budget	2.89	1.29
Capital budget	2.74	1.37
Master Budget	2.66	1.45
Grand Mean	3.23	1.15

Source: Field survey (2020)

Results as shown in table 8 indicated zero-based budget, that is the university prepares clean budget at the beginning of each year was rated as the most influential. It obtained a mean score of 4.14 and a standard deviation 0.86 revealing respondents' homogenous views. Participative budget that is, the university in preparing budget allows employees throughout the university to be actively involved in the budget development process was rated second. It recorded a mean score of 3.88, which signified respondents' agreement. The standard deviation value was 0.85, which demonstrated the fact that respondents share similar views.

Flexible budget that the university prepared and accepted cannot be changed was rated third with a mean score of 3.57 and a standard deviation score of 1.50 shown divergence views expressed by the respondents. Incremental budget that is, the university adjusts previous years' values to cater for inflation for current year budget was rated fourth with a mean score of 3.44 and a standard deviation score of 0.69 showing homogeneous views of respondents.

The least rated budgets prepared by the university was cash budget that is, the university budget preparation consists of projection of cash inflows and outflows for a defined period in the future with mean 2.89 and standard deviation 1.29, capital budget that is, the university prepares budgets that seek to invest available monetary resources in long-term projects/activities such as acquisition of new machinery with mean 2.74 and standard deviation 1.37.

Again, others are master budget that is, in preparing budgets puts all the functional budgets together, comprises the budgeted profit and loss account, balance sheet and cash flow statement. It obtained a mean score of 2.66 and standard deviation 1.45 indicating respondents' divergence views. Fixed budget that is, the university budget if prepared and accepted cannot be changed with mean 2.48 and standard deviation of 1.15 showing respondent's divergence views. Figure 3 show the bar chart of kinds of budget prepared at the university in terms mean weight. Bar chart below shows that zero-based budget emerges as a prevailing budget prepared at the university indicating thatthe university prepares clean budget at the beginning of each year.

The next prevailing budget are participative budget, flexible budget, incremental budget and they are all above neutral rating of 3 indicating respondents' average agreement of preparing such budgets at the university.

The bar chart shows that fixed budget, cash budget, capital budget and master budget mean values are below the neutral level value of 3 indicating respondents' average disagreement of preparing such budgets at the university

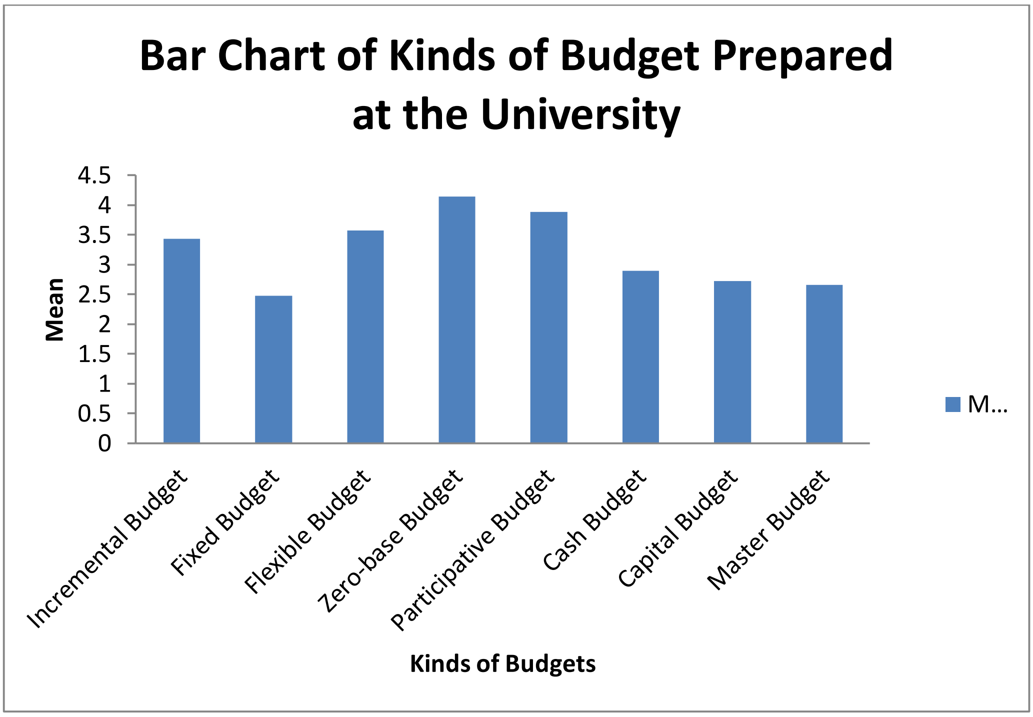

Figure 3: Bar chart showing Kinds of Budget Prepared at the University, (2020)

Source: Field survey (2020)

Challenges of Budget Preparation and Implementations

This section examines challenges of budget preparation and implementation at the university. Respondents were asked to rate their levels of agreement using a Likert scale questions of 1-5 with 1 showing least agreement and 5 showing strong agreement. For analysis purposes, the mean and standard deviation of the responses given by the respondents were computed. These were analyzed with mean ranks. The mean score closer to 4 and above were interpreted as agreement, those closer to 2 and below were interpreted as disagreement, whereas those equal to or closer to 3 were neutral.

Table 9: Challenges of Budget Preparation and Implementation

Variables	Mean	Std
Inadequate co-operation among those preparing the budgets	2.73	1.14
No proper communication during budget preparation	2.51	0.86
There were inadequate information for effective budgeting	2.73	0.94
Budgeting preparation guidelines are clear to the participants	3.53	0.78
Budget department are not well resourced	2.43	0.91
Inadequate stakeholders consultation toward budget preparation	2.71	0.95
Budgets implementation are time consuming and costly	3.16	0.96
Poor forecast of budget estimates is a challenge	3.18	0.85
Lack of skilled personnel to formulate and implement budget	2.48	1.13
Delay in securing approval of budget by the executive board	3.07	0.95
Changing environment is a constrain to budget implementation	2.92	1.02
Lack of clear policy is a hindrance to budget preparation	3.11	1.09
Departments do not prepare budget proposal prior to budget year	2.81	1.14
Grand Mean	2.88	0.98

Source: Field survey (2020)

Table 9 summarizes challenges of budget preparation and implementation. It indicated that poor forecast of budget estimates was rated as the most influential challenge on budget preparation and implementation. It obtained a mean score of 3.18, which shows respondents' mid-way agreement with standard deviation value of 0.85, which revealed respondents' homogeneous agreement.

Budgets implementations are time consuming and costly was rated second as a challenge. It recorded a mean score of 3.16 and standard deviation of 0.96, which demonstrated respondents' views and a close homogeneous respondent's view. Lack of clear policy is a hindrance to budget preparation was identified as the third challenge with a mean score of 3.11. The standard deviation score of 1.09 shown a close divergence of views expressed by the respondents and demonstrate the fact that respondents had mid -way views.

Respondents disagree with the following variables as a challenge of budget implementation. Budget departments are not well resourced with means 2.43 and standard deviations 0.91 shows that respondents disagree with homogeneous views. No proper communication during budget preparation recorded a mean score of 2.51 indicating respondent's disagreement and a standard deviation of 0.86, which revealed respondents' opinions relatively close around the mean score indicating homogeneous views. Inadequate stakeholders' consultation toward budget preparation obtained a mean value of 2.71 and standard deviation of 0.95 indicating respondents' disagreement for the variable as budget preparation and implementation challenges. Inadequate co-operation among those preparing the budgets as a challenge of budget preparation and implementation recorded a mean value of 2.73 and standard deviation of 1.14 indicating respondents' disagreement.

Also, there are inadequate information for effective budgeting as a challenge of budget preparation and implementation. It attracted a mean value of 2.73 and standard deviation of 0.94 indicating homogeneous respondents' disagreement. Departments do not prepare budget proposal prior to budget year as a challenge of budget preparation and implementation recorded a mean value of 2.81and standard deviation of 1.14 indicating respondents’ disagreement. Also, changing environment is constrain to budget implementation as a challenge of budget preparation and implementation recorded a mean value of 2.92 and standard deviation of 1.02 indicating respondents’ disagreement.

Lack of skilled personnel to formulate and implement budget with mean 2.48 and standard deviation of 1.13. The grand mean and standard deviation of challenges of budget preparation and implementation is 2.88 and 0.98.

Budgetary Controls Practices and their Effect on Public Financial Management

This section examined budgetary control practices at the university under budget planning and development, budget implementation and budget monitoring and control. Respondents were asked to rate their levels of agreement using a Likert scale questions of 1-5 with 1 showing least agreement and 5 showing strong agreement of budgetary control practices at the university. The results are shown in table 9 to 11

Table 10: Budget Planning and Development

Variables	Mean	Std
University has independent budget committee to prepare budget	4.00	0.76
University calls for input from staff during budget planning	3.86	0.82
Budget planners’compare prices before budget formulation	3.84	0.78
University engage stakeholders in making key budget decisions	3.69	0.97
Budget planners have knowledge on prior years' activities as well as changes in the year(s) to come in line with department objectives	4.14	0.65
Budget planners considers sources of revenues during planning	3.98	0.67
Grand Mean	3.92	0.77

Source: Field survey (2020)

Table 10 summarizes budget planning and development process at the university. Results indicated that budget planners at the university have knowledge on prior year's activities as well as changes in the years to come in line with departments' objectives were rated first by respondents. It obtained a mean score of 4.14, which shows that respondents' agreement and a standard deviation value of 0.65, which revealed respondents' homogeneous agreement.

The university has independent budget committee to prepare budget was rated second in terms of budget planning and development by the respondents. It recorded a mean score of 4.00 and standard deviation of 0.76, which demonstrated respondents' agreement and a close homogeneous view. Budget planners consider sources of revenues during planning as a third budget planning and development process with a mean score of 3.98. The standard deviation score of 0.67 shown a close view expressed by the respondents and demonstrate the fact that respondents' agreement. University budget planners' calls for input from staff during budget planning was rated fourth as budget planning process. It had a mean score of 3.86 and standard deviation of 0.82. Budget planners compare prices before budget formulation was rated fifth as budget planning process at the university with mean value of 3.84 and standard deviation of 0.78. Budget planners at the university engage stakeholders in making key budget decisions with mean value of 3.69 and standard deviation of 0.97. The grand mean and standard deviation of budget planning and development process at the university was 3.92 and 0.77 respectively.

Table 11: Budget Implementation

Variables	Mean	Std
There is adequate periodical review to ensure budgets are implemented effectively and minimize policy slip	3.82	0.55
Budget implementation stage focuses on inflation, and budget overruns so that adequate measures can be prepared	3.59	0.78
Departments put proper accounting measures to keep budget implementation under control		
There is adequate recording of appropriations and apportionment during budget implementation at the university	3.81	0.80

Source: Field survey (2020)

Results as shown in table 11 show analysis of variable leading to budget implementation at the university. Results indicate that departments put proper accounting measures to keep budget implementation under control. It obtained a mean score of 3.91 and a standard deviation 0.74 revealing respondents' homogenous views. There is adequate periodical review to ensure budgets are implemented effectively and minimize policy slip was rated second. It recorded a mean score of 3.82, which signified respondents' agreement. The standard deviation value was 0.55, which demonstrated the fact that the respondents share similar views.

There is adequate recording of appropriations and apportionment during budget implementation at the university was rated third with a mean score of 3.81 and a standard deviation score of 0.80 showing homogeneous views expressed by respondents. Budget implementation stage focuses on inflation and budget overruns so that adequate measures can be prepared was rated fourth with a mean score of 3.59 and a standard deviation score of 0.78 showing homogeneous views of respondents. The grand mean and standard deviation of budget implementation process at the university was 3.78 and 0.72 respectively.

Table 12: Budget Monitoring and Control

Variables	Mean	Std
There is regular follow up on budget plans by budget committee to monitor and ensure proper financial management	3.72	0.62
There exist budget policies that monitor budget spending for good financial management	4.07	0.58
Managers and budget expects hold budget meeting regularly to review performance from time to time for financial improprieties	3.53	0.72
The University audit unit performs regular auditing to examine and monitor financial malfeasance within every budget year	3.79	0.85
Relevant cost and variance analysis are perform to improve budget accuracy and process during monitoring and evaluation	3.57	0.55
There is good budget control system to link budget development goals in the university	3.65	0.71
The University has good budget control practice to manage individual line items within a budget so that expenditures over allocated amounts do not take place	3.75	0.72
Grand Mean	3.73	0.68

Source: Field survey (2020)

Table 12 summarizes budget monitoring and control process at the university. Result indicated that budget committee has budget policies that monitor budget spending for good public financial management was rated first by respondents. It obtained a mean score of 4.07, which show respondents' agreement and a standard deviation value of 0.58, revealing respondents' homogeneous agreement.

The University audit unit performs regular auditing to examine and monitor financial malfeasance within every budget year was rated second in terms of budget monitoring and control by the respondents'. It recorded a mean score of 3.79 and standard deviation of 0.85, which demonstrated respondents' agreement and a close homogeneous view. The University has good budget control practice to manage individual line items within a budget so that expenditures over allocated amounts do not take place was rated as third budget monitoring and control process with a mean score of 3.75. The standard deviation score of 0.72 shown a close view expressed by the respondents and demonstrate respondents' agreement.

There is regular follow up on budget plans by budget committee to monitor and ensure proper financial management was rated fourth as budget monitoring process. It had a mean score of 3.72 and standard deviation of 0.62. There is good budget control system to link budget development goals in the university for proper public financial management was rated fifth as budget monitoring process with mean value of 3.65 and standard deviation of 0.71 .Relevant cost and variance analysis are performed to improve budget accuracy and process during monitoring and evaluation with mean value of 3.57 and standard deviation of 0.55.

Managers and budget experts hold budget meeting regularly to review performance from time to time for financial improprieties had a mean value of 3.53 and standard deviation of 0.72. The grand mean and standard deviation of budget monitoring and control process at the university was 3.72 and 0.68 respectively.

In order to examine public financial management process at the university, the study assessed budgetary practices, auditing practices and regulatory framework on public financial management at the university by soliciting respondents' opinion on how the above variables affect public financial management. The study looked at six variables of budgetary practices, three variables of regulatory framework and seven variables of auditing practices. The results of the analysis are shown in table 13 to 15.

Table 13: Budget Practices on Public Financial Management

Variables	Mean	Std
There is good budget system at the University to check public spending in line with public financial management	3.97	0.73
Spending at the university adhere to budget controls for good public financial management	4.02	0.54
Budget preparation is inclusive and consultative at the university to adhere to public financial management	4.05	0.60
Value for money concern is paramount in the university activities as well as spending to conform public financial management	4.08	0.63
Grand Mean	4.03	0.63

Source: Field survey (2020)

Table 13 summarises analysis of effect budget budgetary practices on public financial management at the university. Respondents rated that value for money concern is paramount at the university activities when spending for public financial management first. It obtained a mean score of 4.08, which show respondents' agreement and a standard deviation value of 0.63, revealing respondents homogeneous agreement.

Budget preparation is inclusive and consultative at the university to adhere to public financial management was rated second by the respondents'. It had a mean score of 4.05 and standard deviation of 0.60, which demonstrated respondents' agreement and a close homogeneous view. Spending at the university adhere to budget standards regards to public financial management was rated as third by respondents with a mean score of 4.02. The standard deviation score of 0.54. indicating close views expressed by the respondents and demonstrate respondents' agreement. There exist realistic and practically of budget at the university to check public spending in line with public financial management was the least rated variable. The mean value is 3.97 and standard deviation 0.73. The grand mean and standard deviation of budget practices on public financial management at the university was 4.03 and 0.63 respectively.

Table 14: Regulatory Framework on Public Financial Management

Variables	Mean	Std
Rules and regulations that curb wastage on public funds exist for public financial management	3.95	0.61
There is clarity of regulatory framework for budget formulators in accordance of public financial management	4.19	0.73
Transparency in financial reporting exist at the university to check funds utilization	4.03	0.64
Grand Mean	4.06	0.66

Source: Field survey (2020)

Table 14 summarizes analysis of effect of regulatory framework on public financial management at the university. Respondents rated that there is clarity of regulatory framework for budget formulators in accordance with public financial management at the university first. It obtained a mean score of 4.19, which shows respondents' agreement and a standard deviation value of 0.73, revealing respondents' homogeneous agreement. Respondents also agree that transparency in financial reporting exists at the university to check funds utilisation in line with public financial management. It had a mean value of 4.03 and standard deviation of 0.64. Respondents further agree that there was rules and regulations to curb wastage on public funds at the university. It obtained a mean value of 3.95 and standard deviation of 0.61. The grand mean and standard deviation of regulatory framework at the university is 4.06 and 0.66 respectively. This finding revealed that respondents agree that there is regulatory framework at the university

Table 15: Auditing Practices on Public Financial Management

Variables	Mean	Std
Annual audits are done at the University for Adherence of public financial management ethics	4.05	0.85
Publication of audit reports exist at the university to show financial malfeasance in line with public financial management	3.48	0.95
There is utilization of audit reports at various departments at the university to enforce public financial management	3.60	0.77
Punishment for misappropriation of funds exist at the university to enforce public financial management ethics	3.77	0.74
Internal auditing takes place at the university regularly to straighten public financial management standards	4.04	0.74
Internal auditors at the university are competence enough to handle public financial management matters	4.09	0.68
Grand Mean	3.84	0.79

Source: Field survey (2020)

Table 15 summarizes analysis of effect of auditing practices on public financial management at the university. Respondents rated that annual audits are done at the University for adherence of public financial management ethics. It obtained a mean score of 4.05, which shows respondents' agreement and a standard deviation value of 0.85, revealing respondents' homogeneous agreement.

Internal auditors at the university are competent enough to handle public financial management matters were rated second by the respondents. It had a mean score of 4.09and standard deviation of 0.68, which demonstrated respondents' agreement and a close homogeneous view. Internal auditing takes place at the university regularly to straighten public financial management standards was rated third by respondents with a mean score of 4.04. The standard deviation score of 0.74 indicating close views expressed by the respondents and demonstrate respondents' agreement. Punishment for misappropriation of funds exists at the university to enforce public financial management ethics was rated fourth. The mean value is 3.77 and standard deviation of 0.74.

There is utilization of audit reports at various departments at the university to enforce public financial management was rated fifth by the respondents. It had a mean score of 3.60 and standard deviation of 0.77, which demonstrated respondents' agreement and a close homogeneous view. Publication of audit reports exists at the university to show financial malfeasance in line with public financial management was least rated with mean value 3.48 and standard deviation 0.95. The grand mean and standard deviation of auditing practices at the university is 3.84 and 0.79 respectively.

Discussion of Results

Respondent's opinions on the sources of funds at the University averagely agreed that Government funding was the main sources of for the University followed by internal generated funds such as revenue from academic facility user fees, funds from fees of undergraduate part time and funds from fees of graduate students are the main source of revenue to the university. The respondents further agree that zero-based budget, flexible budget and incremental budget are major kinds of budget that are practiced at the university. This finding corroborates Rehman et al., (2011) studied that the impact of zero-based budgeting on employee commitment and identify zero-based budgeting has moderate effect on employee commitment in an organization. Similarly, Ekanem (2014) identified zero-based budgeting as a management tool for effective budget implementation in the University of Calabar, Nigeria.

On challenges of budget preparation and implementation, results revealed that respondents agree that specific challenge of budget preparation and implementation is time consuming and costly. Respondents again have midway opinion that poor forecast of budget estimates and delays in securing budget approval by managers are challenges. The grand mean value indicates that generally respondents at the university disagree that there are challenges of budget preparation and implementation. The results of the study were in contrast with Imuezerua and Chinomona (2015) who identified skills inadequacy among budgeting staff in Sedibeng Municipality in South Africa and concluded budgetary staff has inadequate budgetary skills in Municipality

It is also in contrast with Otieno *et al.* (2016) who determined the effects of Financial Budgeting in the Management of Public Secondary Schools in Uriri

Sub-County, Kenya and conclude that there was a problem in cooperation among the members caused by lack of team work, inadequate financial knowledge and lack of regular financial training and budgeting

On the effect of budget controls on public financial management. The grand mean of budgetary practices revealed that respondents agree that it has effect on public financial management. Specifically, respondents rated that value for money concern is paramount and there is realistic budgeting to check public spending at the university. Again, grand mean of auditing practices indicates that respondents agree that it has effect on public financial management. Specifically, respondents rated internal auditors at the university to be competent enough to handle public financial matters, internal auditing takes place at the university regularly to straighten spending patterns and annual audits are done at the University for adherence of public financial management ethics.

Respondents indicated that there is budget planning and developments supporting the findings of Edmund *et al.*, (2015) revelation that, metropolitan assemblies in Ghana prepare budgets and plan to guide their activities and operations and that there is generally a high level of budget participation. Also, respondents agree that there is budget implementation at the university which corroborates Edmund et al., (2015) who identified that metropolitan assemblies in Ghana use a rigorous budgetary control practices in their operations and attach much importance to budgets and budgetary control. In addition, respondents generally agreed that there is budgetary monitoring and control at the University. These findings corroborate earlier findings of Kimini (2014) that there are budgetary controls in non-governmental organisations.

On the issue of budget practices, respondents generally agreed that there were budget practices at the University. This result corroborates Ekpenyong's (2014) finding when he examined application of budgets as a management tool for effective performance in University of Calabar, Nigeria and concluded that application of budgets in the University of Calabar as a management performance tool was effective with regard to financial management. Similarly, the results are in line with Wonder et al., (2018) finding when they explored the role of budgeting and its effect on financial performance in Ghana Stock Exchange and concluded that budgeting plays imperative roles in the financial management performance. Again, the results further revealed that there is regulatory framework on financial management at the University. In addition, the respondents agree generally that there is auditing practices at the University. The results corroborate earlier findings of Marygoreth (2014) cited in Moore and Petrin, (2017) when they examined the budgets and budgetary control enhances public financial performance in Tanzania and conclude that budget and budgetary control contributes much to effectiveness public financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMENDATIONS

Introduction

This chapter summarizes the main findings of the study in relation to the research questions, conclusions of the study and gives recommendations based on the findings of the study.

Summary

This study examined the role of budgeting in the management of public funds in tertiary institutions: A case study of University of Energy and Natural Resources, Sunyani under the following research questions: What are the methods through which funds are made available at the university? What kind of budgeting is operated in the University? What are the challenges faced in the preparation and implementation of the budget and what budgetary controls are practised as public financial management process?

The research design employed was non experimental research design (Case study approach) and cross-sectional survey method for the data collection. The target population was made up of senior staff members and staff involve in financial matters at the University. The study used a sample size of 244 senior staff members and other staff who involves in financial management at the University. Data were collected by means of 5-point Likert type measurement rating from 1-5, indicating 1 as the least rating and 5 as the highest rating. Data were analyzed using Statistics Product for Service Solution version 23 (SPSS) by employing mean, standard deviation, bar chart, percentages.

Research question one was to assess methods through which funds are made available at the university. The study made used of 3 variable sources to determine government of Ghana funds, 6 variable sources for internal generated funds and 5 variable sources for external donations. It was revealed that respondents rated Government funding as the main source of funds to the university, followed by internal generated funds and external donations was the least source of funds.

Research question two was to identify kinds of budgeting operated at the university. Respondents were asked to indicate their opinion on which of the 8 kinds of budget mostly use at the university. It was revealed that, zero-based budget was highly ranked by the respondent, followed by participative budget, flexible budget and incremental budget. The least rated budgets used at the university are fixed budget, master budget, cash budget and capital budget.

Research question three was to identify the challenges faced in the preparation and implementation of the budget at the university. Respondents were asked to indicate their opinion on 13 identified challenges of budget preparation and implementation at the university. The results revealed that respondents agree that specific challenge of budget preparation and implementation is time consuming and costly. Respondents again have midway opinion that poor forecast of budget estimates and delays in securing budget approval by managers are challenging. The grand mean value indicates that generally respondents at the university disagree that there are challenges of budget preparation and implementation.

Research question four was to evaluate what budgetary controls are practised as public financial management process at the university. The study examined budgetary control practices at the university, 6 variables were examined under budget planning and development, 4 variables under budget implementation and 7 variables were examine under budget monitoring and control. The results revealed that there are budget control practices at the university. Respondents specifically rated that there is independent budget committee and budget planners consider sources of revenue during budget planning and development. There are adequate periodical reviews to ensure budget are implemented effectively and proper accounting measures to keep budget implementation under control for budget implementation. Again, there exists a budget policy that monitors spending at the university to ensure good public financial management.

Under research question four, the study also assessed the effect of budget controls such as budgetary practices, auditing practices and regulatory framework on public financial management. The grand mean of budgetary practices revealed that respondents agree that it has effect on public financial management. Specifically, respondents rated that value for money concern is paramount and there is realistic budgeting to check public spending at the university. Again, grand mean of auditing practices indicates that respondents agree that it has effect on public financial management. Specifically, respondents rated internal auditors at the university are competent enough to handle public financial matters, internal auditing takes place at the university regularly to straighten spending patterns and annual audit are done at the university for adherence of public financial management ethics influential.

The grand mean of regulatory framework revealed that respondents agree that it has effect on public financial management. Specifically, respondents' rated clarity of regulatory framework at the university and transparency in financial reporting exist at the university to check funds utilization.

Conclusions

This study aimed to examine the role of budgeting in the management of public funds in tertiary institutions. The finding of study revealed that an internal generated fund is the main source of funding to the university, followed by government of Ghana, while external funding was the least source of funds. Under internal generated funds the study concludes that fees from graduate students, part time undergraduate students, revenue from academic user fees and revenue from research for local industries are the main sources of internal generated funds for the university

The study findings conclude that, zero-based budget was highly rated followed by participative budget, flexible budget and incremental budget. While, fixed budget, master budget, cash budget and capital budget are the least rated from the findings. The study concludes that zero-based budget, participative budget and flexible budget are the main type of budget practice at the university

The findings of the study again conclude that there are budget control practices effects on public financial management at the university. The study concludes that there is independent budget committee, budget planners considers source of revenue during planning, there is adequate periodical reviews to ensure budget are implemented effectively and proper accounting measures to keep budget implementation at the university. Again, the study concludes that there exist budget policies that monitor budget spending for good public financial management.

Recommendations

From the findings and the conclusions of the study, the following recommendations were proposed.

It is recommended that the university explore and identify potential financial resources such as external research consultancy, research for local industries, building technology capacity for local small-scale enterprise and workshops for entrepreneurs' to augment internally generated fund as well as reactivate and ensure constant flow of funds to the university.

The study also recommends that managers at the university should improve on budget forecast estimates. Avoid delaying in approving budget by the executive board and eliminate hindrance to budget preparation.

Suggestion for Further Research

This study has concentrated on the Universityof Energy and Natural Resources and it is suggested that a replica of the study should be conducted in most tertiary institutions in Ghana to give more national outlook for generalization

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APPENDIX A

CHATOLIC UNIVERSITY COLLEGE, FIAPRE

QUESTIONNAIRE

Dear respondent,

This questionnaire is designed to collect information on the role budgeting in the management of public funds in tertiary institutions. A case study of University of Energy and Natural Resources, Sunyani. It is purely an academic exercise and I assure you that all information given will be treated confidential and solely for the purpose of this study.

Section A: Personal Data

1. What is your highest qualification?
   a. Diploma [ ],
   b. Degree [ ]
   c. Masters [ ]
   d. Doctorate [ ]
   e. Phd [ ]
2. What is your gender?
   a. Male [ ]
   b. Female [ ]
3. What is your age?
   a. 20 – 29 years [ ]
   b. 30- 39years[ ] 4
   c. 0-49years [ ]
   d. 50-59years[ ]
4. Department?..

Section B: Main Source/Method of Sourcing of Funds at the University

5. Please indicate your opinion to the following sources of funds to the University, using the scale: SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree

Sources of Funds	**SD**	**D**	**N**	**A**	**SA**
Government of Ghana Funds					
The university source of funding is from Ministry of Education					
Ghana Education Trust fund (GETfund) provide fund to the university					
Grants from governmental organisations					
Internal Generated funds (IGF)					
The university get revenue from academic facility user fees					
The university gets funds from fees of undergraduate.					
The university gets funds from fees of graduate and students					
The university gets funds from research for local industries					
The university gets funds from research for small scale business					
The university gets funds from ICT fees, students and ID card					
External Donation/Source					
The university get funds from non-governmental organisation					
The university generate funds from Alumni associations					
The university gets funds from external research consultancy					
The university gets funds from World Bank					
The university gets funds from local authorities, chiefs					

Section C: Kinds of Budgeting of Operated at the University

6. Please indicate your opinion to the following budgetary application at the University, using the scale: SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree

Types of Budgeting Models	**SD**	**D**	**N**	**A**	**SA**
The finance office at the university adjusts previous years' values to cater for inflation for current year budget (Incremental budgeting).					
The finance office at the university budget if prepared and accepted cannot be changed (Fixed budget)					
The university budget prepared covers changes based on unexpected changes in events and losses (Flexible Budget).					
The finance office at the university prepares clean budget at the beginning of each year and not based on previous year's expenses, that is the budget is initially set to zero(Zero-based budget)					
The budget prepare by the finance office at the university allows employees throughout the organization to be activelyinvolved in the budget development process (Participative Budget)					
The finance office at the university budget consist of projection of cash inflows and outflows for a defined period in the future(Cash Budget)					
The finance office prepares budgets that seek to invest available monetary resources in long-term projects/activities such as acquisition of new machinery, research and development (Capital budget).					
The finance office budget puts all the functional budgets together, comprises the budgeted profit and loss account, balance sheet and cash flow statement (Master Budget)					

Section D: Challenges of Budget Preparation and Implementation

7. Please indicate your opinion to the following challenges posed as result of budget preparation and implementation at your department and the University as a whole, using the scale: SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree

Budget Preparation and Implementation	**SD**	**D**	**N**	**A**	**SA**
Inadequate co-operation and understanding among those preparing the budgets					
No proper communication during the process of budget preparation					
There are inadequate information for effective budgeting					
Budgeting preparation guidelines are clear to the participants					
Budget committees in various department are not well resourced					
Inadequate stakeholders consultation toward budget preparation					
Budgets implementation are time consuming and costly					
Poor forecast of budget estimates is a challenge					
Lack of skilled personnel to formulate and implement budget					
Delay in securing approval of budget by the executive board					
Changing demands from the environment is a constrain to budget implementation					
Lack of clear policy is a hindrance to budget preparation					
Departments do not prepare budget proposal prior to budget year					

Section E: Budgetary Controls Practices and their effect on Public Financial Management Process of UNER.

8. Please indicate your opinion to the following budgetary control systems being comply at your department to enhance public financial management at the University, using the scale: SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree

Budgetary Controls Practice and Compliance	**SD**	**D**	**N**	**A**	**SA**
Budget Planning and Development					
University has independent budget committee to prepare budget					
University calls for input from staff during budget planning					
Budget planners' compare prices before budget formulation.					
University engage stakeholders in making key budget decisions					
Budget planners have knowledge on prior years' activities as well changes in the year(s) to come in line with department objectives.					
Budget planners considers sources of revenues at the university during planning to strengthen public financial management.					
Budget Implementation	**SD**	**D**	**N**	**A**	**SA**
There is adequate periodical reviewto ensure budget are implemented effectively and minimize policy slip					
Budget implementation stage focuses on inflation, and budget overruns so that adequate measures can be prepared					
Departments put proper accounting measures to keep budget implementation under control					
There is adequate recording of appropriationsand apportionment during budget implementation at the university					
Budget Monitoring and Control	**SD**	**D**	**N**	**A**	**SA**
There is regular follow up on budget plans by budget committee to monitor and ensure proper financial management					

There exist budget policies that monitor budget spending for good financial management					
Managers and budget expects hold budget meeting regularly to review performance from time to time to monitor financial improprieties					
The University audit unit perform regular auditing to examine and monitor financial malfeasance within every budget year					
Relevant cost and variance analysis are perform to improve budget accuracy and process during monitoring and evaluation					
There is good budget control system to link budget development goals at the university,					
The University has good budget control practice to manage individual line items within a budget so that expenditures over allocated amounts do not take place					
Public Financial Management					
Budgetary Practices	**SD**	**D**	**N**	**A**	**SA**
There is good budget system at the University to check public spending in line with public financial management					
Spending at the university adhere to budget controls for good public financial management					
Budget preparation is inclusive and consultative at the university to adhere to public financial management					
Value for money concern is paramount in the university activities as well as spending					
Auditing practices					
Annual audits are done at the university for adherence of public financial management ethics					
Publication of audit reports exist at the university to show financial malfeasance in line with public financial management					
There is utilization of audit reports at various departments at the university to enforce public financial management					
Punishment for misappropriation of funds exist at the university so that employees adhere to public financial management ethics					

Internal auditing takes place at the university regularly to straighten public financial management standards					
Internal auditors at the university are competence enough to handle public financial management matters					
Regulatory Framework					
Rules and regulations that curb wastage on public funds exist for public financial management					
There is clarity of regulatory framework for budget formulators in accordance of public financial management					
Transparency in financial reporting exist at the university to check funds utilization					