Budget Implementation in Ghana: A Case Study of Ministry of Food and Agriculture (MOFA)

Author’s Details:

(1) Huang Qifa  (2) Rosemond Atampokah  (3) Priscilla Avonie  (4) Enoch Darkwah  (5) Baku Raphael kwame

Affiliation: Jiangsu University, School of Management
Address: No 301 Xuefu Road, Zhenjiang, Jiangsu Province, 212013, China

Abstract
Budgeting is one of the most important activities that is carried out in every government. The efficient allocation of scarce resources to every sector of the economy is done through budgeting. Thus, a budget is a powerful tool and serves as the focal point for key resource decisions. The purpose of the study is to examine the effects of disparities between Government’s approved budget and actual outturn, using the Ministry of Food Agriculture (MOFA) as a case study. Also, to determine the effect of budget difference on the performance of the Agricultural sector and compare the disparities between Government’s approved budget and actual outturn, with regards to the MOFA and MOH. There exist differences between approved budgets and actual amount received by Ministry of Agriculture over the period 2006 to 2016 in Ghana. The budget disparity negatively affects the performance of the Agricultural sector. With regards to comparing the disparities between Government’s approved budget and actual outturn, in Agricultural sector and the Health Sector, there were no significant difference.

Keywords: Budget Implementation; Ghana; Ministry of Agriculture

1.0 Introduction

1.1 Background of the Study
Budgeting is one of the most important activities that is carried out in every government. The efficient allocation of scarce resources to every sector of the economy is done through budgeting. Thus, a budget is a powerful tool and serves as the focal point for key resource decisions. Any government that wants to succeed must plan; but planning in government, begins with budgeting. Planning involves the determination of the future overall goals or objectives, preparing policy statement and monitoring of result (Faludi, 2013).

Public sector budgeting has become a repetitive annual ritual which is characterized with poor performance (Olurankinse, 2013). The reason being that most public-sector budgets are poorly executed and also lack proper performance evaluation (Olurankinse, 2013). Lack of funds has often been cited as the major problem hindering effective and successful execution and completion of many public projects. However, poor finance management, rather than inadequate finance is the bane of governments’ inability to achieve substantial development (Ojofeitimi, 2000).

According to Foster and Zormelo (2002), there have been reported cases of budget disparity, budget indiscipline, poor or non-performance of budget and poor budgetary implementation in Ghana. Abekah-Nkrumah, Dinklo & Abor (2009), in their study on “Financing the health sector in Ghana: a review of the budgetary process” in critiqued parliament for not seriously scrutinizing budget documents before giving approval. They also held government responsible for late passage of budget and release of funds, and selective implementation of budget. Poor budget implementation slows down the pace of development, particularly in terms of capital projects and physical Infrastructure (Olaopa et al., 2012). According to Kwakye and Owuo (2014), the phenomenon of budget deviating from its estimate, especially in the Ghanain context worsens during election years. The reason being that the government tried to impress the citizens by fulling some of the campaign promises, thus over spend and channel its resources on fuling their campaing promises. According to Hadley & Welham (2016), in instances where budget outturns deviate considerably from plan, the end result is that, that budget becomes a poor guide for managing the action of the various actors in both the
public and private sectors. The resultant effect is a less effective delivery of public services and other desired outcomes. The Ministry of Food and Agriculture (MOFA) is the sector mandated to ensure the promotion of sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, processors and traders for improved livelihood” (MOFA, 2012). The core functions of MOFA are to: Plan and advice the Government on agricultural development policies, administration and management of the agricultural sector of Ghana’s economy; Monitor and evaluate the total agricultural sector with emphasis on Crops, livestock, fisheries, irrigation and mechanization of agricultural industry; Implement and supervise Agricultural programmes and projects and finally; Coordinate Agricultural research (MOFA, 2012).

A World Bank report (2013), on the agricultural public expenditure diagnostic review, stated that within the periods 2005 and 2011, agricultural sector recorded an average actual expenditure of 86% of the approved budget of the Ghana government. The total expenditure of MoFA for 2014 was GH¢285.29 million, which represent 0.78% of the national expenditure.

In 2003, African leaders met in Mozambique and signed the Maputo Declaration on Agriculture and Food Security as a means of solving the rising need of increasing food production. The Declaration required that each country committed a minimum of 10% of their annual national budget to investing in Agriculture to bring about a 6% growth in agriculture. A 6% growth was identified as what was needed to achieve the first Millennium Development Goals (MDGs) (Boateng and Nyaaba, 2014). In 2008, the World Bank endorsed and accepted the Maputo Declaration. Ghana together with other African governments after 2003 and 2008 recommitted themselves to investing in their agriculture sectors under the AU/NEPAD Comprehensive African Agriculture Development Programme (CAADP) (Boateng and Nyaaba, 2014).

In fulfilling the Maputo Declaration, Ghana in October 2009, signed the Economic Community of West African State agricultural policy (the ECOWAP) ECOWAP/CAADP thereby adopting its policy objectives. The Ghana Poverty Reduction Strategies (GPRS) I and II, Food and Agriculture Sector Development Policies (FASDEP) I and II were subsequently developed. The FASDEP was a long-term policy plan for the agriculture sector. The medium-term development plan was developed to help achieve the policies in FASDEP. To effectively achieve the policies set out by the Government of Ghana, the sector ministry has adopted strategic policy objectives to guide its efforts. These are: Food security and emergency preparedness; Increased Growth in Incomes; Increased Competitiveness and enhanced integration into domestic and international markets; Sustainable Management of land and Environment; Science and Technology Applied in Food and Agricultural Development and Improved Institutional coordination.

Since 2010, in preparation of budget for the agricultural sector, MOFA consider these objectives, hence ensure that there are funds to carry out their activities. However, the budget needed for the activities of MOFA are not implemented well. The annual reports of MOFA states that, frequent delays in release of funds and not releasing the full amount had grave implication for the activities of the agriculture sector.

This study also considers the budget implementation of the health sector. This is because health of citizens especially the working force, has been seen as a tool for achieving growth and stability, which is necessary for sustainable economic growth (Omari, 2013). Thus, poor implementation of budget can seriously affect the nation. The outcome of the comparison with respect to disparities between Government’s budgets approved against actual outturn in the two sectors (agriculture and health sector) will inform us on how the country prioritised the agricultural sector which has been taunted for a long time as the backbone of Ghana’s economy.

1.2 Problem Statement

According to Foster & Zormelo (2002), Ghana has barely implemented any of its budgets fully within any fiscal year. Apologies for government inability to implement previous years’ budgets have become a regular feature of almost all presidential budget speeches. Since the inception of the budgetary system, the Government of Ghana (GoG) does not release all the funds of the Parliamentary Approved budget, to the ministries. For
instance, in 2015, Parliamentary Approved budget for MOFA was GH 411.821 million but only GH 262.890 million was released by the Ministry of Finance (MOF) creating a difference of GH 148.931. The continuous failure of government to release all funds of the approved budget over the years may have resulted in slowing the activities of the agricultural sectors. For instance, resources required for field activities such as fertilizers, insecticides and pesticides in the first quarter may be released in the second quarter and sometimes not at all, yet most agriculture activities are time bond, which may affect production. A comparison with the health sector is done to ascertain whether the same disparities can be found there.

The issue of budget implementation has been of tremendous concern to the general public because of its implications on economic growth and development (Oke, 2013). In 2010, the parliamentary approved budget of MoFA was GH 256.886m whiles the release amount was GH 197.689m. This implies that the ministry did not received all the amount they budgeted. However, in 2012 (election year), the parliamentary approved budget of MoFA was GH 262.240m whiles the release amount was GH 375.642. This indicated that the ministry over spend in that election year (2012). Thus, the disparities between parliamentary approved and actual amount released can be positive or negative, where positive represent a situation in which the approved budget is less than the released amount. This study, therefore examines the effect of the disparities between Government’s approved budget and actual outturn in the Ministries of Food and Agriculture (MOFA) and the Ministry of Health.

1.3 Research Questions
This study seeks to answer the following research questions:

- What is the trend of parliamentary approved budget and actual amount received by MOFA and MoH over the period of 2009-2016?
- What is the relationship between the disparities of the approved budget and amount received by MoFA and the performance of the agriculture sector?
- Is the magnitude of the disparities in the agricultural sector significantly different from that of the Heath sector?

1.4 Objectives
The primary objective of the study is to examine the effects of disparities between Government’s approved budget and actual outturn, using the Ministry of Food Agriculture (MoFA) as a case study. Specifically, the study seeks to:

1. Identify the behaviour of parliamentary approved budget and actual amount received by MOFA and MoH over the period of 2009-2016.
2. Determine the relationship between of budget disparities and the performance of the Agricultural sector.
3. Compare the disparities between Government’s approved budget and actual outturn, with regards to the Agricultural sector and the Health Sector.

1.5 Justification of Study
The Agriculture sector in Ghana has been taunted as the backbone of its economy. The sector has provided food security to the nation by provide enough food for consumption. Moreover, the country also earn money from some food crops such as cocoa, cashew that are exported. As a result of the produce, capital spent on importing this produce can be used for another developmental project. In addition, the Government benefits from some export earnings. More industries can be built for processing some of the produce to reduce post-harvest losses, thereby reducing unemployment the more. Thus, the importance of this study can be seen in diverse ways. This study will provide an opportunity for policy makers to identify the effect of budget execution on activities of the MOFA in Ghana. The work will also serve as literature for studies of implementation of budget.
1.6 Methodology
The study relies heavily on secondary data, that is, the various Budget Statements of the Government of Ghana over the period 2009–2016. The other source of data was collected from the annual reports of MoH and MoFA. The data was analysed using independent t-test and correlation analysis, the reasons for the choice of models can be seen in chapter three.

1.7 Organisation of the Study
The study is organised in five chapters;
Chapter one gives an introduction of the research study. Chapter two reviews the relevant literature of different authors whose findings have been defined in relation to the topic under study. Chapter three explains the methods used in analysing the data to achieve the objectives. Chapter four presents and discussed the results, and chapter five consists of a summary of the study conclusions and recommendations.

2.0 Literature Review

2.1 Introduction
This section discusses the concept of budget, general overview of budget in Ghana, budget preparation, the approval of budget, implementation of budget, benefits and challenges of budgeting and empirical research on budgeting.

2.2 Definitions and Concept of Budget
Budget has been defined by various authors in different ways. Balmori (2003) described the budget of any government as the technical instrument by which commitments are translated into monetary terms. The budget is a key instrument for macroeconomic management in most economy and its efficacy determine the success of governments in meeting solid goals. According to Eaton (2005), budget is defined as “a quantitative statement for a defined period of time, which may include planned revenues, assets, liabilities and cash flows. Budgeting is the process of expressing the predicted costs and resources for a planned course of action over a specified time period. Budgets can be drawn up for business units, departments, products, teams or the entire organisation (Olurankinse, 2012). Another term for a budget is a financial plan, but budgets can refer to non-cash resources, such as staff or time. Budgeting helps all types of organisation to plan and control their operations, and to support their managerial strategies (Omolehinwa, 2003).

A budget sets out the benchmark against which performance will be measured. For example, this might be the minimum profit and loss performance expected by senior management. Performance against budget may be part of the organisation’s appraisal system for individuals who are deemed accountable for such performance. Therefore, budgets are a management tool, expressed in quantitative terms because this is the easiest way to prioritise and co-ordinate complex competing decisions throughout the organisation. Budgets are created with the intention to moderate the expenditure of a governing institution or body, hence prioritizing the needs of the spending institution. However, among developing countries, the gap between budget and accomplishments are so wide (Olurankinse, 2012). Budget preparation and implementation still remain challenging, hence, the need for adequate control aimed at improving effective resources utilization at the budget implementation stage (Oke, 2013).

The budget process is similar across countries, though there exist to some extent dissimilarities. Among the Anglophone African countries, the legal framework for the budget is guided by the Constitution, the Financial Act and Regulations, and the Standing Orders of Parliament. However, countries such as Uganda and Kenya have in addition to the main sources of authority, the Budget Act, 2001 and the Fiscal Management Act, 2009 respectively (the Budget process in Africa, 2010).
2.3 Overview of the budget process in Ghana: Preparation to implementation

In order to provide for a responsible governance, budgeting can be related to a circle (Olurankinse, 2012). The cycle allows for the system to absorb and respond to new information and in doing so the government is held accountable for its action though it should be recognized that many factors curtail the extent to which major changes can be made in the budget. Figure 2.1, shows the various components of the budget cycle.

2.4 Budget preparation

The Ghana government budget derives its authority from three main legal documents (Budget Process in Africa Report, 2010). These comprise the 1992 Constitution, the Financial Administration Act (FAA) and the Financial Administration Regulations (FAR). Other supporting laws, procedures and regulations include the Audit Service Act, 2000 (Act 584), the Bank of Ghana Law 2002 (Act 612), and tax laws (IRS, CEPs & VAT Acts) that exist to complement the general provisions. The Standing Orders of Parliament (Order no. 138-150) are also an important guide to the budget process especially with regard to legislative approval.

In Ghana, the President is mandated by the constitution to submit a budget for approval by parliament each year. Through the Medium-Term Expenditure Framework (MTEF), the Ministry of Finance (MOF) prepares the budget on behalf of the President. Budget preparation begins with an advertisement in the print media by the ministry requesting interested individuals/civil society organizations (CSOs) to submit proposals on issues worthy of consideration in the coming year’s budget (Budget Process in Africa, 2010).
Furthermore, the sector Ministry then undertakes a revision of the macro-economic framework taking into consideration the provisions of the National Development Plan (NDP), cabinet/executive directives and other.

Figure 4.1: Budget Cycle
Source: The Budget Process in Africa, 2010
policy frameworks of Government and international agreements. The Ministry of Finance expedites a cross-sectorial meeting of MDA’s to discuss cross-sectoral issues and to examine activities to avoid replication and overlaps of activities and programmes. Grounded on the revised macro-economic framework, changes in national policy direction and the relative priorities of sectors, sectorial ceilings are estimated. The ministry of finance then issues a communiqué to MDAs for Guidelines in the preparation of the Budget for the coming year.

2.5 The approval of budget
The Constitution requires the Minister of Finance on behalf of the President to present the Budget to parliament at least one month before the end of the financial year. The Budget Statement and Economic Policy of Government, is thus presented to the legislature in November on the floor of parliament. The Minister also makes a formal request for legislative approval. In his presentation of the 2017 budget for Ghana, The Minister pleads “I beg to move that this Honourable House approves the Financial Policy of the Government of Ghana for the year ending 31st December 2017” (Government of Ghana Budget, 2016). Order 140 (2) of the standing orders of parliament states that the budget shall be presented to the House by the Minister responsible for Finance on behalf of, or on the authority of the President and in such form as the house may determine. The budget is appraised by parliament and the debate on it is adjourned for not less than 3 days after the presentation. Parliament first deliberate on the overall budget policy following the introduction of the executive’s budget proposals and the estimates are forwarded to the relevant committees for further debates and approval. According to order 140 (4) of the Standing Orders of Parliament, “that part of the budget relating to the Ministries for which they have responsibility shall stand committed respectively to the committees responsible for the subject matter to which the heads of estimates relate as referred to in order 151(2) and 152 and each such committee shall consider the relevant Heads of Estimate committed to it and report on it to the House within such time as the Business Committee may determine. Technical Officers from the MDAs then appear before specific committees to explain the relevance of their proposals. As part of the approval process, they also indicate how their proposals affect national priorities. The sub-committee on finance discusses the main document concerning the macroeconomic targets, resource mobilization and recommends acceptance by the full house of parliament. The legislature has effectively one month to approve the budget or to pass the appropriation bill. This is done by first voting on the total amount of expenditure before it votes on specific appropriations. The appropriation Bill is passed into an Act to give legal backing for the budget to be implemented.

2.6 The implementation of budget
The budget is implemented by the Government Ministries, Department and Agencies (MDA). After the approval of the budget, the MDA’s present requests to MOF for the release of funds. MDAs are mandated to submit execution plans, cash plans and procurement plans to MOF immediately the appropriation law comes into effect. General warrants are issued for salary related expenditure. MDAs are expected to initiate procurement processes and request the MOF to release specific warrants for service and investments. Once this is done, monthly releases are made to MDAs to honour commitments, and expenditures are recorded and published by the Controller and Accountant General’s Department in the final public accounts within three months of the end of the financial year. This is presented to the executive. In the event that government is unable to mobilize the projected revenue as indicated in the budget, Government may cut spending even after the passage of the Appropriation Act by the Legislature or may borrow from internal and external sources to support the budget. A supplementary budget may be prepared depending on a number of factors including changing economic forecasts resulting in lower/higher expenditure or revenue.

2.7 Budget Audit
The Constitution obliges the Auditor General to audit budget implementation and report its finding to Parliament. The Auditor General performs both financial and performance audit by providing an independent
check on information and compliance with the legal provisions that guide the use of public funds. The Auditor General reports to Parliament its findings on all areas including procurement lapses. The audited reports are expected to be published six months after the end of the fiscal year. The Public Accounts Committee of Parliament (PAC) studies the reports of the Auditor General and where necessary, invites Directors of MDAs or persons found culpable to a public hearing of the Committee’s sittings to answer questions relating to the audit’s findings. The PAC then makes recommendations to the full house to take remedial actions on any irregularities uncovered by the audits (Budget Process in Africa, 2010).

2.8 Benefits in Budgeting
According to Olaopa et al. (2012), the basic merit of government budgeting lies in the efficient and economical allocation of scarce resources by utilizing numerous techniques, including reorganization, priority setting, management improvement programs, better coordination and cooperation, and capital improvements.

Budgeting is vital to the decision-making process in that it helps in sharpening issues, instituting annual review of program, and long-range planning, providing more objective decisions, making evaluation easier, and providing understandable data. When budget is properly implemented, it increases the effectiveness of a program and shifts an agency’s focus from inputs to outcomes (Joyce, 2005). Budgeting clearly defines major purposes for which funds are allocated and tells the manager how program results will be measured. According to Kelly (2015), Budgeting has many virtues, it permits the evaluation of:

- The efficiency and economy of programs;
- Alternative programs and alternative way of implementing the same program; and
- Giving priority to various programs to determine their overall effectiveness. Budgeting attempts to establish the value of a government product or service rather than just its cost.

According to Kelly (2015), Budgeting is important to governments for a number of reasons,

- Provides accountability to the public
- Drives redesign of programs (focuses on improvements)
- Helps rationalize budget allocations (uses performance information as a basis of evidence)  Improves understanding of crosscutting programs in government
- Helps agencies link their daily activities to overall government outcomes and similar activities of other agencies
- Compares cost effectiveness between programs
- Helps align government spending with overall goals

Government can equally use performance measurement as a guide for decisions to fund or cut programs, for budget presentation and justification, to assess efficiency of programs, to determine service costs, to streamline program and budget structures, to curb departmental flexibility regarding fund transfers, and to eliminate or sunset programs illustrated by the measures as poorly performing (Willoughby, 2002).

2.9 Definition of Agriculture Sector
The UN Classification of Functions of Government (COFOG) system places agricultural sector in the Economic Service category. According to COFOG’s definition, the agriculture sector is made up agriculture (particularly crops and animals), fishing, forestry and hunting. The UN defines the agricultural sector to include: administration of agriculture, forestry, and fishing affairs; conservation and reclamation of arable land; and construction or operation of flood control, irrigation and drainage systems. This definition excludes research and development (R & D). The AU-NEPAD definition however, includes Research and Development (R&D). This study adopted the AU-NEPAD definition of the agricultural sector.
2.10 Agriculture Sector Budget Trends
The average budget allocation to the agriculture sector over the period of 2001 and 2011 was GH¢193 million using 2001 prices as the base year prices. The sector budget increased nominal as well as in real terms during the period as shown in Figure 2.1 (Ghins, 2014). In real terms budget allocation to the sector at the end of 2011, increased by about five (5) times the allocation prevailing in 2001. From GH¢65 million in 2001, the budget allocated to the agricultural sector rose to a whopping GH¢315 million in 2011.

![Agricultural sector Budget Disbursed and Budget Released from 2001 to 2011](chart)

**Figure 2.1: Agriculture Sector Budget Trends**

2.11 Definition of Health Sector
Health sector include all the sectors that deals with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health (WHO, 2017). The Ministry of Health (MoH) provides public health services, managing Ghana's healthcare industry, and building Ghana's hospitals and medical education system. However, private sector participation in Ghana heath sector is about 52%. The ministry is also responsible for policy formulation, monitoring and evaluation, resource mobilization and regulation of the health service delivery in the country. The ministry agencies include Ghana Medical and Dental Council (GMDC), Pharmacy Council Ghana (PCG), Ghana Registered Nurses and Midwives (GRNM), Alternative Medicine Council (AMC), Foods and Drug Authority (FDA), Private Hospitals and Maternity Homes Board (PHMHB), National Health Insurance Authority (NHIA), Ghana National Drugs Programme (GNDP), Ghana Health Service (GHS), Allied Health Professionals Council (AHPC) and Occupational Therapy Association of Ghana.

2.12 Health Sector Budget Trend
Total Health Sector Budget of the country over the period keep on increasing, from GH¢583,183,200 in 2007 to GH¢1,598,438,000 in 2011. In 2010, the Ghana Health Sector (GHS) total non-wage recurrent was predominantly from internally generated funds (IGF), constituting over 60%. Programme receipts were also fairly high (35%), whereas Government of Ghana (GoG) receipts were significantly low (2%). Although there was a 12.5% increase in the overall health sector budget for 2011, this was not as significant as when compared to the previous year 2010 (40.7%). Sector Budget Support and Earmarked funds given in 2011 were significantly lower than that allocated in 2010. Most significant is the increase in IGF at 144%. The sector did not receive funds from the HIPC initiative.
<table>
<thead>
<tr>
<th>SOURCE</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tr>
<td></td>
<td>BUDGET (000)</td>
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<td>BUDGET (000)</td>
<td>BUDGET (000)</td>
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<tr>
<td>GOG</td>
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<td>268517.00</td>
<td>344398.00</td>
<td>400451.00</td>
<td>406642.00</td>
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<td>HEALTH /SBS</td>
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<td>63981.00</td>
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<td>480908.00</td>
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<tr>
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<td>6485.00</td>
<td>11427.00</td>
<td>8000.00</td>
<td></td>
</tr>
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<td>TOTAL HEALTH SECTOR BUDGET</td>
<td>583183.20</td>
<td>84424.00</td>
<td>1009660.00</td>
<td>1420656.00</td>
<td>1598438.00</td>
</tr>
</tbody>
</table>

2.13 Empirical Studies

Abekah-Nkrumah, Dinklo, and Abor (2009), reviewed the budget planning, execution and disbursement processes of the Ministry of Health in Ghana. They found some national improvement in the health sector but identified some delayed cash flow or release of funds on time as weaknesses in the budgeting process of the Ministry of Health.

Muleri (2001), studied budgeting practices in Non-governmental organization in Kenya. He observed that there is a limitation on budgeting process which leads to cost cutting to achieve cost effectiveness.

Melek (2007), studied the impact of budget participation on managerial performance via organisational commitment. He conducted a study on the top 500 firms in Turkey. The results of his regression analysis revealed that the effects of budget participation and organizational commitment by itself on managerial performance are positive and significant. He also found out high interaction between budget participation and organizational commitment.

Wamae (2008), did a research on the challenges of budgeting at National social security fund (NSSF). The aim of the study was to establish the challenges of budgeting process and the challenges faced when drawing up a budget to be used by an organization and how organization can effectively face the budgeting challenges. The population constituted nine (9) board of directors and sixteen (16) senior managers at NSSF who were concerned with budgeting issues at the organization. From the study the researcher found out that the organization faced challenges when drawing up budget and the biggest included on commitment, various head of department did not take budget seriously leading to giving ambitious budgets which would end up not achieving target, leading to complaints from the board. The researcher concluded that budgeting was very effective at NSSF as they served their purpose assisting in control, used as a means by which management communicates by other level of department. The researcher added that the process of budgeting at NSSF faced some challenges which were inability to achieve the required value of business inadequate authority to spend despite allocation, cost inflation, poor participation and poor co-ordination of the exercise.

Amalokwu and Ngoasong (2008), in a thesis titled “Budgetary and management control practices (budget being the tool for management control in Guinness”. They research concluded that budgets could facilitate the creating and sustaining of competitive advantages by enabling the following management functions. Forecasting and planning, communication and coordination, motivational device evaluation and control and decision making.
3.0 Research Methodology

3.1 Introduction
This section describes the methodology employed for this study. The methodology comprises of the research design, method of data collection, source of data collection and the models used to answer the research questions.

3.2 Research Design
This study employs descriptive research design. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Hopkins, 2008). The study sought to investigate the effects of disparities between Government’s budget approved against actual outturn in Ministries of Food and Agriculture (MoFA) and this only be achieved through quantitative methodologies, hence descriptive research design was adopted.

3.3 Method of data collection
The type of data used for this research is secondary data. The secondary data were obtained from World Bank indicators variables, annual reports of MoFA and MoH.

3.4 Operational definitions of Variables

3.4.1 Disparity between Approved Budget and Actual Amount Received (DAR)
The main independent variable of the study is the disparity between approved budget and actual amount received. This variable was measured by calculating the difference the approved budget and the actual amount received.

3.4.2 Agric Sector Performances
The dependent variable of the study is Agric sector performances. This variable was measured by adding Crop production index and Livestock production index, this shows agricultural production for each year relative to the base period. These variables were chosen because livestock production index includes meat and milk from all sources, dairy products such as cheese, and eggs, honey, raw silk, wool, and hides and skins. Whiles crop production index includes all crops. Thus, the combinations of the variables will measure all aspect of the agriculture sectors. Data on both livestock and crop production index was collected from 2008 to 2016.

3.5 Model Specification
The time period of the research was basically from 2006 to 2016. The variables used for the study includes disparity between approved budget and actual for MOH and MOFA and Agric sector performances. The models used for analysing the data include independent t-test and correlation analysis.

3.5.1 Independent t-test
Independent t-test is used to determine for the equality or the difference of means between two populations. Independent t-test was employed in this study to test if there is a significant difference between MoFA and MOH with regards to disparity between approved budget and actual.

Let \( \mu_1 \) be the mean of the disparity between Approved Budget and Actual Amount Received of MoFA and \( \mu_2 \) be the mean of the disparity between Approved Budget and Actual Amount Received of MoH.

\[ H_0: \mu_1 = \mu_2 \text{ v.s. } H_a: \mu_1 \neq \mu_2 \text{ (Two-tailed test, } \alpha/2 \text{ probability in each tail)} \]

\[ T \text{ (test statistics)} = \frac{X - \mu_0}{s / \sqrt{n}} \sim t_{n-1} \]
The null hypothesis will be rejected if; the test statics is greater than the critical value \((t > t_{\alpha/2})\) or the test statics is less than the negative critical value \((t < -t_{\alpha/2})\).

### 3.5.2 Correlation analysis

This study used Pearson correlation analysis to establish the relationship between disparity between Approved Budget and Actual Amount Received and Agric sector performances. The correlation coefficient formulas can be obtained as

\[
r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt[n]{n \sum x^2 - (\sum x)^2} \sqrt[n]{n \sum y^2 - (\sum y)^2}}
\]

The correlation coefficient \(r\) value is between -1 and 1, where: A correlation coefficient value closer to 1 indicates a strong positive relationship whiles a value closer to -1 indicates a strong negative relationship.

### 4.0 DATA ANALYSIS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the analysis and discussion of budget implementation in Ghana. Independent t-test and correlation analysis was used to answered the objectives.

#### 4.2 Descriptive Statistics of the Variables

**Table 4.1: Descriptive Statistics of the Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved Budget (MOFA)</td>
<td>264.7538</td>
<td>125.7956</td>
<td>79.09</td>
<td>501.502</td>
</tr>
<tr>
<td>Amount Released (MOFA)</td>
<td>229.2884</td>
<td>108.5303</td>
<td>68.232</td>
<td>377.294</td>
</tr>
<tr>
<td>Actual Amount Received (MOFA)</td>
<td>225.8825</td>
<td>107.9544</td>
<td>62.391</td>
<td>379.352</td>
</tr>
<tr>
<td>Disparity between AB and AAR (MOFA)</td>
<td>38.8713</td>
<td>77.29139</td>
<td>-117.112</td>
<td>138.593</td>
</tr>
<tr>
<td>Approved Budget (MOH)</td>
<td>2331.207</td>
<td>1043.795</td>
<td>978.0541</td>
<td>3529.44</td>
</tr>
<tr>
<td>Amount Released (MOH)</td>
<td>2261.249</td>
<td>1310.883</td>
<td>746.6061</td>
<td>4104.869</td>
</tr>
<tr>
<td>Actual Amount Received (MOH)</td>
<td>2215.151</td>
<td>1308.580</td>
<td>705.4874</td>
<td>4064.143</td>
</tr>
<tr>
<td>Disparity between AB and AAR (MOH)</td>
<td>116.0559</td>
<td>602.4088</td>
<td>-806.4315</td>
<td>1031.894</td>
</tr>
</tbody>
</table>

Author, 2017

Table 4.1 shows the descriptive analysis of the variables used in the study. The descriptive include the mean, the standard deviation, the minimum and the maximum value of the variables.

It was observed that the average, the approved budget of MOFA across the years was GH 264.7538 million with a standard deviation of GH 125.7956 million. On the average the Amount Released from the Ministry of Finance to MOFA was GH 229.2884 million and a standard deviation of GH 108.5303 million. It was also observed on the average the Actual Amount Received by MOFA was GH 225.8825 million and a standard deviation GH 107.9544 million. With respect to Disparity between Approved Budget (AB) and Actual Amount Received (AAR) the mean was GH 38.8713 million and a standard deviation of GH 77.29139 million.

With respect to the Ministry of Health, it was revealed that on the average, the approved budget of MOH across the years was GH 2331.207 million with a standard deviation of GH 1043.795 million. The average Amount Released from the Ministry of Finance to MOH was GH 2261.249 million and a standard deviation of GH 108.5303 million. It was also observed on the average the Actual Amount Received by MOH was GH 2215.151 million and a standard deviation GH 1308.58 million. With respect to Disparity between Approved
Budget (AB) and Actual Amount Received (AAR) the mean was GH 116.0559 million and a standard deviation of GH 602.4088 million.

4.3 Trend Analysis
This section provides the trend analysis which depicts the behaviour of the variables over the past 10 years. The results were presented in Figure 4.1, Figure 4.2, Figure 4.3.

4.2.1 Trend Analysis of MOFA Budgets
Figure 4.1: Trend Analysis Approved Budgets and Actual Amount Received of MOFA

Figure 4.1 displayed the trend of Approved Budgets and Actual Amount Received of MOFA over the past decade. From the graph it can be seen that from 2006 to 2010 the Approved Budgets of MOFA were above the Actual Amount Received. From 2011 to 2012 the Actual Amount Received by MOFA was even higher than the approved budget. This implies that the ministry spends more than what was approved for them. According to Forson, and Opoku (2014) in 2012 the government had to implement the Single Spine Salary (SSS) which increases the expenditure of the ministry hence resulted in spending more than the approved budget. From 2013 to 2016 the Approved Budgets of MOFA were above the Actual Amount Received.

Figure 4.2: Trend Analysis Disparity between Actual Budget and Actual Amount Received of MOFA

http://www.ijmsbr.com
The trend of disparity between actual budget and actual amount received of MOFA can be seen in Figure 4.2. A mount value signifies a situation where the approved budget ae higher than actual amount received and negative values denote where actual amount received becomes higher than approved budget. It was observed that over the past decade the disparities are not stable in most cases it is positive where the approved budget ae higher than actual amount received.

4.2.2 Trend Analysis of Ministry of Health (MOH) Budgets

Figure 4.3: Trend Analysis Approved Budgets and Actual Amount Received of MOH

![Graph showing trend analysis of MOH budgets](image)

Figure 4.2 also displayed the trend of Approved Budgets and Actual Amount Received of Ministry of Health over the past decade. From the graph it can be seen that from 2008 to 2011 the Approved Budgets of MOFA were above the Actual Amount Received. In 2012 and from 2015 to 2016, the Actual Amount Received by MOH was even higher than the approved budget. Thus, expenditure was more than their approved budget. According to Reich et al. (2016), in 2015 and 2016 the government embark on massive infrastructure in the health sector which results to the increases the expenditure of the ministry hence resulted in spending more than the approved budget.

Figure 4.2: Trend Analysis Disparity between Actual Budget and Actual Amount Received of MOH

![Graph showing disparity between actual budget and actual amount](image)
The trend of disparity between actual budget and actual amount received of MOH can be seen in Figure 4.4. A positive mount value signifies a situation where the approved budget are higher than actual amount received and negative values denote where actual amount received becomes higher than approved budget. It was observed that over the past decade the disparities. It increases and decreases over time.

4.2.3 Trend Analysis of Agric Sector Performance

Figure 4.5: Trend Analysis of Agric Sector Performance

From the graph it can be seen that the from 2007 to 2013 thee was massive improvement in performance in the Agric Sector. From 20013 to 20116 the performance of the Agric Sector was decreasing signify a decrease in the production of crops and livestock.

4.4 Testing for the difference in MOFA and MOH Budget Disparity

Independent t-test were done to test if there is a significant difference between MOFA and MOH with regards to disparity between approved budget (AB) and actual amount received (AAR). The results were displayed in table 4.2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>T-test</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disparity (MOFA)</td>
<td>38.8713</td>
<td>24.44168</td>
<td>-0.4028</td>
<td>17</td>
<td>0.6921</td>
</tr>
<tr>
<td>Disparity (MOH)</td>
<td>116.0559</td>
<td>200.8029</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$H_0$: $\mu_1 = \mu_2$ (there is no significant difference)

$H_1$: $\mu_1 \neq \mu_2$ (there is a significant difference)

From Table 4.2, it can be seen the p-value of the t-statistics was greater than 0.005. This implies that there is no significant in disparity between approved budget (AB) and actual amount received of MOFA and MOH ($t = -0.4028, p < 0.6921$). Therefore, on the average disparity between approved budget (AB) and actual amount received of MOFA ($Mean = 38.8713$) is significantly lower than that of MOH ($Mean = 116.0559$). According to Abekah-Nkrumah, Dinklo & Abor (2009) in Ghana disparity between approved budget (AB) and actual amount received can be seen in all the ministries.
4.5 Testing for the relationship between Budget Disparity of MOFA and Agric Sector Performance

Figure 4.6: Scatter Plot of Budget Disparity of MOFA and Agric Sector Performance

From Figure 4.6, it can be seen that there is a negative relationship between the Budget Disparity of MOFA and Agric Sector Performance. This implies that the higher the budget disparity, the lower the sector performance.

<table>
<thead>
<tr>
<th>Variables</th>
<th>ASP</th>
<th>DAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASP</td>
<td>1</td>
<td>-0.2634**</td>
</tr>
<tr>
<td>DAR</td>
<td>-0.2634**</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.3: Correlation Matrix of Budget Disparity of MOFA (DAR) and Agric Sector Performance (ASP)

From the correlation matrix, it can be seen that there is a negative relationship Budget Disparity of MOFA (DAR) and Agric Sector Performance (ASP). This mean that when there is a budget disparity of MOFA (Approved budget greater than the actual amount received), it affects the performance of the sector negatively.

5.0 Summary, Conclusion and Recommendation

5.1 Summary

The purpose of the study is to examine the effects of disparities between Government’s approved budget and actual outturn, using the Ministry of Food Agriculture (MOFA) as a case study. The specific objectives were to identify the magnitude of differences between approved budgets and actual amount received by MOFA over the period of 2006-2016. To determine the effect of budget difference on the performance of the Agricultural sector and compare the disparities between Government’s approved budget and actual outturn, with regards to the MOFA and MOH. Research questions geared towards achieving the objectives were stated.

The literature reviewed the concept of budget, general over view of budget in Ghana, budget preparation, the approval of budget, implementation of budget, benefits and challenges of budgeting and empirical research on budgeting.

The time period of the research was basically from 2006 to 2016. The variables used for the study includes disparity between approved budget and actual for MOH and MOFA and Agric sector performances. The models used for analysing the data include independent t-test and correlation analysis. The results were presented in tables and graphs. The main limitation of the study was data acquisition, as the researcher there were no enough information on for the study.
From the trend analysis, it was revealed that be seen that from 2006 to 2010 the Approved Budgets of MOFA were above the Actual Amount Received. From 2011 to 2012 the Actual Amount Received by MOFA was even higher than the approved budget. The trend analysis of the budget disparity revealed that in all years there are budget disparities, moreover, not stable in most cases it is positive where the approved budget is higher than actual amount received. The study also revealed that there is no significant disparity between approved budget (AB) and actual amount received of MOFA and MOH. The correlation matrix, also show that there is a negative relationship between Budget Disparity of MOFA (DAR) and Agric Sector Performance (ASP).

5.3 Conclusions
The following conclusions were drawn from the study:

There exist differences between approved budgets and actual amount received by MOFA over the period 2006 to 2016. The budget disparity negatively affects the performance of the Agricultural sector. With regards to comparing the disparities between Government’s approved budget and actual outturn, in Agricultural sector and the Health Sector, there were no significant difference.

5.4 Recommendation of the study
On the basis of the conclusions the following recommendations were made:

i. The government of Ghana must make sure that the disparity between approved budgets and actual amount received by MOFA is reduced the disparity since it negatively affects the performance of the Agric sector. This can be done by cutting down unnecessary spending.

ii. The government of Ghana must consider also addressed the budget disparities in other ministry since from the study it was found that the budget disparities in MOFA is not significant different from MOH.

iii. The various ministries must have tried to spend within their estimated budget especially during election period since the study found out that during the election period the the government over spend their budget.

References


xvi. Oke MO (2015), 'Budget implementation and economic growth in Nigeria'.


