

CATHOLIC UNIVERSITY COLLEGE OF GHANA

THE EFFECTIVENESS OF INTEGRATED FINANCIAL MANAGEMENT
INFORMATION SYSTEM (IFMIS) AS TOOL TO CONTROL
EXPENDITURE IN METROPOLITAN, MUNICIPAL AND DISTRICT
ASSEMBLIES (MMDAS).

COLLINS KWADWO SAFO

2020

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BY

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Dissertation submitted to the Faculty of Economics and Business
Administration, Catholic University College of Ghana, in partial fulfillment of
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: Collins Kwadwo Safo

Supervisor's Declaration

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

Supervisor's Signature..... Date.....

Name: Dr. Patrick Ohemeng Gyaase

ABSTRACT

The purpose of this study was to investigate the effectiveness of Ghana Integrated Financial Information System (GIFMIS) as tool to control expenditure in the Municipal and District Assemblies in the Bono region of Ghana. This has been necessitated by the fact that the use of GIFMIS in the public service is undergoing some challenges coupled with the system reliability, efficiency, accountability, payment and commitment. The research was based on Information system theory and descriptive survey was adopted for the study. The study focused on 54 staff of 4 Municipals and 2 Districts Assemblies in the Bono region with Coordinating Directors, Finance Officers, Storekeepers, Procurement, Budget officers and System Administrators. Data was analyzed using descriptive statistics and regression, study findings showed that GIFMIS usage has been able to control expenditure by monitoring payment and budget controls and efficiency, transparent and accountability in financial management. The study further showed network failure and nonexistence of training plan as the major challenge in the usage of GIFMIS. There is a need for the government to invest in the IT infrastructure and all MMDA's to include GIFMIS training in their training plan.

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Special thanks also to the entire staff of Sunyani, Dormaa, Berekum and Sunyani west Municipal Assembly and Jaman North and South District Assembly in the Bono Region for their immense support.

In all, any shortcomings and inadequacies of this study are my full responsibilities.

DEDICATION

To my late parents, my wife, children and siblings

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CHAPTER ONE

INTRODUCTION

This Chapter presents background of the study, the problem statement, the objectives of the study, research question, and the significance of the study, the scope, limitations and chapter organization.

Background to the Study

Funds or cash for the public sector lies at the heart of their operations and management. This is because the public sector is the largest spender and employer in virtually every developing country and it sets the policy environment for the rest of the economy (Owalla & Luanga, 2014). Unfortunately, the method of collection and handling public funds in most of the developing countries has been met with challenges such as corruption, misapplication and misappropriation of funds, over-spending and lack of compliance with existing legislative frameworks. In a struggle to forgo these challenges, developing countries have endeavored to introduce reforms in the public sector financial mobilization and management systems. These transformations have mainly dealt with areas of legal and institutional framework, resource generation, improved resource allocation, transparency, accountability and fiscal discipline aimed at improving efficiency, effectiveness and value for money (Owalla & Luanga, 2014).

This and other reforms brought about the introduction of IFMIS to aid in ensuring value for money. The reason for using aid in implementing integrated financial management

information systems(IFMIS) in anti-poverty programs is that it might have positive effects on the in anti-poverty programmes is that it may have a great and progressive effects on the economic development.

Information systems draw the government nearer to the MDG's and the global goals of poverty eradication, improved living standards of people and administration efficiency (Bartel, 2009), cited in (Yusif, 2019). IFMIS is realized, at least by the international monetary institutions to be the main public financial management reforms

for many developing countries. Their accomplishment, however, has been relatively docile and lots of the anticipated benefits have not necessarily been earned. As a result, the limited resources and expertise may have been misused on initiatives whose success in practice had not necessarily been adequately tested (Wynne, 2005: 32).

A worthy initiative, which has been heavily sponsored across Sub-Saharan African public sectors, is the concept of an Integrated Financial Management System (IFMIS). This involves hosting an Information Technology infrastructure system for the whole local and central government including all state institutions. That is each Ministry, Department and Agency should be able to capture and access its financial data and information in the information system and the Ministry of Finance as well as the Controller and Accountant General's department (CAGD) would monitor the capturing transactions, payments and receipts of each Ministry, Department and Agency daily and the help desk established by the CAGD addresses emerging issues.

In Ghana, donors and in the late 1990s, especially the world bank, European Union and International Monetary Fund, pressured Ghana to

undertake good governance reforms relating to auditing and governmental accounting, which required updating the legal and regulatory framework (Betley et al., 2012), especially: all revenues, loans and grants and expenditures legally approved going through the Consolidated Fund; appropriate oversight by Parliament; flawless statement of the powers and duties of key players, not limiting to the Ministry of Finance , the Controller and Accountant General, Principal Spending officers of Departments and Agencies, and the Auditor General responsible for ensuring accountability of the public funds(World Bank, 2006: 6).

Integrated Financial Management Information system is an integrated financial module that aid protecting the public purse by accessing funds only when budgeted in an efficient and cost effective manner. They hinge on three main cornerstones which involve budget preparation which is getting estimated revenue and expenditure from various MDA's and MMDA'S through IFMIS template Expenditure management that is how money should be spent and reporting how money was really spent. (GIFMIS newsletter, 2012)

To this extend, improvements in a nation's economic governance and development depend on good public financial management (PFM), which requires accountability and effective expenditure control systems. Good systems also encourage a societal bond between the government and the citizenry, such that the latter should believe in the system put in place for collection and spending of monies collected from them as taxes and the government in turn provide goods and services in transparent and accountable ways.

Statement of the Problem

IFMIS have been employed mostly by developing countries. It has been implemented in countries such as South Africa (Hendriks, 2013); Nigeria (Ibrahim & Dauda, 2014). IFMIS is adopted as a result of the inconsistencies and high rate of corruption. Studies done focused narrowly on the challenges and failures of the software.

Research on Integrated Financial Management Information systems in developing countries has focused more on challenges that hinder successful implementation and failures) (Ibrahim & Dauda, 2014; Standforth, 2006. These challenges include: illiteracy; inadequate ICT infrastructure; inadequate change management; inadequate political support; and software complexity (Dada, 2006).

In addition to the above, most of the theories used for studying financial Information systems for both advanced and developing countries concentrated more on the technical aspect and its implementation of the software with the neglect of users especially at the MMDA'S level. (Cavalheiro & Joia, 2014) cited in (Nuhu, 2015). The limitation was that it focused more on the actors with the neglect of expenditure management in the MMDA'S.

The above-mentioned explanations on existing studies on Integrated Financial Management Information System (IFMIS) present the research gaps, which informed this study. In view of this, the identified research problems are summarized below;

- i. In relation to theory gap, most of the theories used in developing research do not reflect on expenditure management

- ii. The interest was on institutional effect on the implementation of GIFMIS with the neglect of how well the system could impact on Financial Management.
- iii. Most of the researchers focused on countries specific without limiting to MMDA's and hence the Local Government Service in Ghana.

This research would help the MMDA's in Ghana to know how effective GIFMIS assist in expenditure management.

Purpose of the Study

The general purpose of the study was to find out the effectiveness of GIFMIS as tool to control expenditure in the Metropolitan, Municipal and District Assemblies in the Bono Region.

Research Objectives

The general objective of this study is to evaluate the effectiveness of the usage of IFMIS and its reliability for controlling expenditure in the Metropolitan, Municipal and District Assemblies in Ghana.

The specific objectives are;

- i. To identify the challenges in the usage of GIFMIS and create management's awareness in addressing them.
- ii. To check the reliability and effectiveness of the implementation of GIFMIS in controlling expenditure to protect the public purse
- iii. To make recommendations to government and MMDA's on the effectiveness of GIFMIS in controlling expenditure to encourage its full implementation.

Research Questions

This research tends to solve these questions;

- i. To what extent did the implementation of GIFMIS impact on Financial Management?
- ii. Does the usage of GIFMIS brought about reliability and effective control of expenditure?
- iii. What are the major challenges of GIFMIS project Implementation?

Significance of the Study

Report gathered from the Auditor General's report annually persistently points out weak internal control systems within the MDA'S and MMDA'S as well as other public institutions. Poor financial reporting and misuse of funds, misapplication are all directed to the poor supervision of Principal Holders. The country need to assess all systems put in place should address if not all some of these challenges to protect the public purse.

This study tends to do the following among others:

- i. To assess the reliability of IFMIS to control expenditure
- ii. To assess the cost and benefit for the of implementation of IFMIS
- iii. To add to the existing literature on importance of IFMIS in controlling expenditure

Delimitations

The study was delimited to all users of GIFMIS under Sunyani municipal assembly, Sunyani west district assembly, Jaman north and south district assembly, Dormaa municipal assembly and Dormaa east district assembly. The Administration, Accounts unit, Budget unit, Procurement unit and Information technology unit of the assembly were selected because they use GIFMIS to perform their function

The population for the study comprised; Coordination Directors, Accounts officers, budget officers, Procurement officers, Store keepers and Information Technology officers in the MMDA's in the Bono region

The scope of content of the study was also be delineated to usage of GIFMIS and its reliability and effectiveness to control expenditure in the MMDA's in the Bono region.

Limitations

Despite the much effort, energy, enthusiasm and resources to comprehensively conduct this study, some limitations are envisaged. Due to the fact that the study area was limited to only the Bono Region, it would be difficult to generalize the findings to cover the other districts in the country. It may be likely that other interesting findings would emerge if the study area was widened. This notwithstanding, Districts that share common characteristics with the six districts in Bono region could utilise the findings to suite their situation.

Organization of the Study

The research is divided into five chapters:

Chapter one, titled "Introduction" and it introduced the study topic, and dealt with the research problem, research objectives, significance of the study and the organization of the study.

Chapter two, which is the literature review, focused on the existing body of works on the usage of Accounting Software and the impact it has on cash management and related articles from the PFM Act.

Chapter three looked at the methodology applied to the study, the research instrument and the method of data analysis. This chapter also discussed

the research design, research strategy, data collection methods, data collection plan and analysis.

Chapter four of the study delved into the presentation, data analysis, discussion and interpretation of results. This section analysed the quantitative data used for the study.

Chapter five presented the summary, conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews existing literature, which is related to the topic. It reviews literature on GIFMIS and ICT as well as existing literature, theories and models relating to the study. This chapter covers a conceptual framework linking the objectives to the existing literature.

Theoretical Framework

This study has an intention of applying and using the fiscal decentralization and resource dependency theory. Thus, this section of the literature review concentrates on the dominant theoretical foundations and conceptual approaches used in GIFMIS in developing countries.

There are a lot of theories on Information Management which is the foundation upon which Ghana Integrated Financial Management Information System (GIFMIS) is built. One of them is the information management theory. The information management theory involves the system theory, information theory, structuration theory and communication theory. These theories are very important because stakeholders embraces certain factors such as the existing culture, structures and technology that have strong influence on financial information system and when these factors are in conflict, can affect the smooth implementation of GIFMIS (Njeje & Qin, 2011). The above fragments of information management are explained in detail in the various sections;

A system theory is a group of similar components that jointly worked and interact to attain a desired objective or set of purpose (Kang'ethe, 2002). To ensure that the process gives the desired level of output, the control elements

must be put in place to avoid or reduce wastages. The effectiveness brings harmony and synergy between the current Information and Communication Technology (ICT)

When communication technology and computers are combined, the result is information technology systems, or "InfoTech". Information technology is a general term that describes any technology that aids in producing, manipulating, storing, communicating, and disseminating information

Structuration theory influences the culture of an organization, information systems development and implementation. The theory clearly explains how humans work, and interact socially within a given culture assisted by language, tools, procedures or rules that are subject to change. The theory is important because it gives a general view of the culture of various organizations in which the GIFMIS development and implementation process are taking place.(M. Smith, 2019)

The theory of structuration shows that human actions are exhibited within the social structures, which is the result of previous human actions, which is described as a dichotomy of structure. „Structures“ comprises of rules, norms or resources that, individuals apply or use in their daily activities. The human actors act within the structures and change through their actions, which give them the ability to change their environment (Njeje and Qin, 2011).

According to Bill (2001) the theory of communication measures the uncertainty of an outcome in different ways. The theory of communication employs information entropy concept which is generally referred to Information Communication Technology (ICT) is defined as transmission or receptions of

data, movement, display, control, manipulation, storage, switching interchange and automatic acquisition of information. The two most significant parts of ICT are computers and telecommunications. Knowledge and information are numerically expanding, accessible and decision-makers need this new tool for development.

The above critically examined theories mostly concentrated more on either technology, communication or on the users, and less on the effects of generating revenue and how to expend or allocate the limited resources. There is thus a need to consider the important effects of the usage of GIFMIS and how it helps to manage the public purse. This need has thus propelled this study to adopt the Fiscal Decentralization and Resource dependency theories. These theories basically explain how resources are generated and expended and how fiscal issues are decentralized to the people.

Fiscal Decentralisation Framework

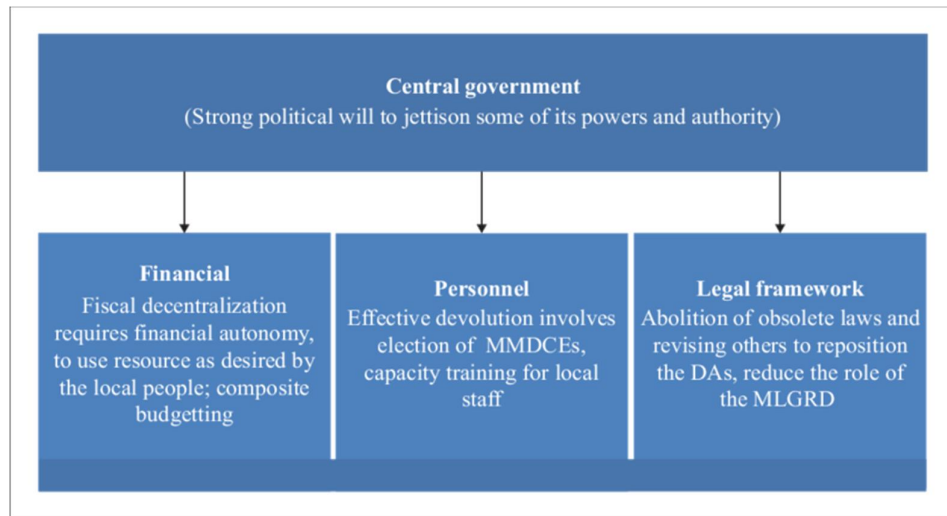


Figure 1: Fiscal Decentralisation Framework

Source; Field survey (2020)

Elements of the Framework

- a. **The central government;** This involves the top most part of the government, where the President and the executives fall within. They hold the utmost power and decide to delegate some of its powers to the authorities under them.
- b. **The People;** Which refers to the power given to the citizenry to vote for confirmation of District Chief Executives and Assembly members
- c. **The Legal Framework;** This involves the mandate given to the people to revise obsolete laws and making conventions to help them fit in the society
- d. **The Financial Decentralisation;** This involves the financial autonomy given to the people to prepare their own budget, for the hearing and allocation of resources to where they deem fit.

Decentralisation of revenue which includes the internally generated fund and externally generated fund has become an issue in the globe especially the developing countries. Government of Ghana is ensuring developments in the local level as such the need to expend locally. To be supportive of a decentralisation process, the basic characteristic of a system for decentralised financial management should include;

- a. Transparency of allocation,
- b. predictability of the amounts available to local population than central government (Ebel & Yilmaz, 2002).

Resource Dependency Theory

Resource dependency theory explains that all organisations rely on resources from their environment (Fadare, 2013). These resources are in the

hands of other organisations within the environment. This theory suggests that the holders of these resources are able to exert power and control over organisations that require the resources. This organisation's survival and success are contingent on the ability to control the flow of resources (Fadare, 2013). The resource dependency theory is attributed to Pfeffer (1973); and Salacik (1978). According to them resource dependency theory argues that 'the key to organisational survival is the ability to acquire and maintain resources, In addition Hatch (2013) based on this definition explained further that the district's reliance on its environment is a function of its need to acquire resources to meet the service delivery.

In a work by Hillman, Canella and Paetzold (2000), cited in (G. Yusuf, 2019) the resource dependency theory is seen to focus on the role that assemblies play in providing or securing essential resources to the district through their linkages to the external environment. The growth and development of the district to a large extent, dependent on the amount of resources available to it. This theory rests on these principles. First the district needs resources to pursue its goals for development, The districts can obtain resources from its environment or from other organisations. This theory provides assemblies with a perspective for comparing different strategies, emphasizing the short term coordination cost as well as the long term prospect of the district growth and development.

Conceptual Definitions

Developed countries have been successful mostly in good public financial management practice that is how effectively they raise revenue, manage and expend public resources. There is a 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 (PEFA,2005) cited in (Nuhu, 2015).

There are many ways to define Public Financial Management. It can be defined as the system, by which financial resources are planned, directed and controlled to enable and influence the effective and efficient delivery of public service goals.

Alternatively, Simson, Sharma and Aziz (2011) define 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 submit that it is about taxing (raising revenue) and spending by the government, and the impacts this has on resource allocation and income distribution. Beyond this however, Task Force on Public Financial management, (2009-2011) submit that public expenditure should link more closely with the revenue side of the budget (especially taxation). Better resource mobilization can create a culture of government accountability to the citizen-taxpayer, diversify and make more effective public finance, enable long-term financial commitments to citizens, and reduce dependence

Defining GIFMIS

According to Dorotinsky and Rozner (2008), an Integrated Financial Information System is a system that tracks financial events and reviews financial transaction. It provides sufficient management reporting, policy decisions fiduciary responsibilities and the preparation of auditable financial statements.

In other words, IFIMS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed (Rodin-Brown 2008). In broader terms, it refers to the computerization and automation of financial transactions.

The introduction of Integrated Financial Management Systems has become a main component of financial reforms to promote efficient and reliable system to manage and control expenditure. IFMIS provides an integrated computerized financial package to enhance the effectiveness and transparency of public resource management by computerizing the budget management and accounting system for a government.

GIFMIS software is obtained from Oracle Corporation and is one of the world's largest software vendors from United State that offers a highly sophisticated information technology infrastructure build-up and enterprise management tool for countries and organizations. The Oracle has functional components such as, general ledger, procurement, payables, receivables, cash management and oracle financial analyzer (GIFMIS newsletter,2012).

Ghana Integrated Financial Management Information System (GIFMIS) was introduced in 2010 to replace the Budget and Public Expenditure Management System (BPEMS) project, which began operation from 1999 and ended in the year 2009. Ghana uses R12 Oracle E-Business Suite and at conference, on 6th of November 2012 at Tamale, accountants and financial officers of decentralized organizations met to sensitize the administrative staff of education service on the GIFMIS implementation which means facing out of manual financial transactions in the public service of Ghana. GIFMIS uses Enterprise Resource Plan (ERP) which is an electronic platform with various

components designed to facilitate the flow of information amongst nationals, institutions to facilitate decision-making. It has yielded positive result as it is functioning in 33 MDAs and the ten Regional Treasuries (News Ghana, 2014).

GIFMIS is a tool that supports treasury management, budget planning, financial control and managing a set of core financial data, process it into information required by decision makers (Peterson, 2006). It is a software that integrates the main financial functions, ensures quality management and credibility of financial reporting, security and efficiency of data. GIFMIS solves financial system problems that are termed as ‘stove piped’ that cannot communicate, provide accurate and clear picture of financial position of the public organisations. GIFMIS is an Information Technology solution that integrates, collects and organises financial information in a central database to support financial reporting, management, execution, and planning of budget. However, the complex information system in the public sector is as a result of the numerous practices and policies (Barry, 2001). In various departments, specialized information systems already established that are still needed in GIFMIS implementation.

GIFMIS is an information system that controls and summarizes financial events (USAID Report, 2008). Casals (2008) defines “integration” of GIFMIS as a single reliable database platform from which all data are expressed in financial terms

The Benefits of GIFMIS

Hove and Wynne (2010), GIFMIS is a tool that succors the management in promoting accountability, allocating and use of public resources to improve efficiency and effectiveness of public expenditure programmes. Management is

capable of exercising financial control over expenditures, ensuring accountability and transparency in the budget cycle and also ensuring that financial events are monitored through automated system. As a management tool, GIFMIS supports a change management programs (Diamond & Khemani, 2006). It is officially accepted as a worldwide financial and budget reform. As a management tool, the GIFMIS helps the management to control budget deficit and aggregate spending.

GIFMIS provides the decision-makers with financial and non-financial information to perform their managerial functions. GIFMIS provides accurate, consistent and timely budgeted information for financial managers in their decision-making (Rodin-Brown, 2008). Automating the accounting and budget management system for a government ensures quality of information which the GIFMIS makes it available at financial management stages, including; financial reporting and auditing, budgeting, treasury management (Dorotinsky & Matsuda, 2001)

GIFMIS permits users operating under the system to use the network and retrieve the information that are useful for their work. A category of reports can be produced to address variety of cash flow problems accounting, auditing, day-to-day management concerns, budgeting, funding and treasury activities (Rozner, 2008); (Cavalheiro & Joia,2014).

GIFMIS works from the general ledger to a more detailed systems involving, accounts receivable or payable, cash management, budgeting, commitment control, debt, assets and liability management, procurement and purchasing, revenue management, human resource management and payroll (Rozner, 2008) also cited in Jayson (2013).

Diamond & Khemani (2006), the function of GIFMIS is to integrate, organise, process and make financial information available to departments within the budget units on a routine basis. The system is capable of producing the needed information accurately, and at the right time. It will cease to be useful if the system does not perform the functions as expected. Public financial management is improved in various ways, but the purpose is to ensure credibility and confidence of the budget through clear and reliable information. Chene (2009), cited in Nuhu (2015), the motive behind the GIFMIS implementation is to enhance the budgetary planning and execution by providing decision-makers an accurate and timely data for budget management. A more regulated and achievable budgeting process is permitted which enhances the full integration and control over budget execution data.

The main benefit of GIFMIS is that, it can be used to detect fraud and eschew corruption. A well-designed GIFMIS has a certain characteristics that help to control excessive payments, theft and fraud (Chene, 2009). It include; electronic systems to identify ghost names, rules for disbursement of cash, monitoring of activities that are likely to be suspicious, automated cross-referencing of payroll, social security, SSNIT, bank codes and account numbers for fraud and identification of exceptions to normal operations.

Other benefits include the following;

The Reliability Efficiency and Effectiveness in Financial Management

Financial transactions of governments are recorded, processed at the short period of time with the aid of the GIFMIS software which permits the users instant access to a reliable, efficient financial data. The system makes the MDAs of the government more accountable and transparent to the legislature,

external agencies and the general public. It improves financial controls, gives a clear picture of commitments of expenditure on a timely or continuous basis. The system can monitor the transactions process at each stage when a commitment is made, example from budgeting to commitment, purchasing, payment request, reconciliation of bank statements, and accounting of expenditure.

This gives a clear view of budget implementation. The system is able to process the information to ensure effectiveness and efficiency of government financial management (OECD, 2003). and Dorotinsky (2003); Owoeye, L. (2014). argue that public financial management can be improved in many ways by the use of GIFMIS, but officially the system ensures credibility and confidence of the budget through the transparent and comprehensive financial data. The GIFMIS standards are based on International Public Sector Accounting Standards (IPSAS). The IPSASs purpose is to enhance the quality of financial reporting by public sector entities, leading to better decisions by governments concerning the resource allocation, thereby promoting transparency and accountability (ICA Ghana, 2014)

Generally, the objective of implementing IFMIS is to increase the effectiveness and efficiency of state financial management and expedite the adoption of public expenditure.

The Joint Financial Management Improvement Program JFMIP (2010) described the core financial system requirements of a reliable system as the ability to: Collect accurate, timely, complete, reliable and consistent information; Provide adequate management reporting; Support government-wide and agency policy decisions; Support budget preparation and execution.

The Exploitation of Payments and Commitment Control of Fund through GIFMIS

Public funds operated under GIFMIS comprise the statutory funds of the Ministries, Departments and Agencies, the consolidated fund, internally generated funds, and the donor funds. The agencies have various accounts of the banks which contains huge public funds that are not used, which attract a huge commissions and bank charges but the government cannot trace such funds and goes further to borrow at a high interest rate. GIFMIS uses the Treasury Single Account (TSA) to control commitments and maximise payment of these funds. TSA is a set of link use to transact all receipts and payment by government and gets a consolidated view of its financial position at the close of each day. It helps to consolidate the government cash balances, gives the ministry of finance oversight of all government cash flows and brings improvement in budget control and monitoring.

Similarly, the government bank account structure under a Treasury Single Account (TSA) could either be centralised or distributed. In the centralised structure, the TSA is composed of a single bank account with or without sub-account usually at the central bank. Whiles distributed bank account structure, there are several inter independence accounts opened by commercial banks and operated by line and spending agencies.

TSA interact with government transactions processing systems for revenue collection and disbursement of payments. In the centralised payment structure all transaction of expenditure are approved by Ministry of Finance or Controller and are paid from the TSA. For the distributed salary structure, individual spending units or agencies are responsible for bank accounts in the

banking system. In the centralised transaction processing system authority is concentrated on the treasury and the spending units submit their payment request to the central units. Cash disbursement ceiling for each spending units can be enforced against sub/ ledger accounts and it is straight forward in the GIFMIS system. For cash management purpose, positive and negative balances in this ledger accounts and transactions accounts are netted into the TSA main accounts.

The establishment of TSA has significantly reduced the government debt servicing cost. It is one of the tools that is used to address the weakness in the financial management such as idle cash balances, unnecessary borrowing cost of raising funds to perceived cash shortages and consolidates the government cash balances in the commercial banking sector, (IMF, 2011)

Issues of Internal controls and duplicating of work through GIFMIS

Internal control systems are established in the government agencies to ensure that the organization achieves its objectives, policies and procedures. These policies and procedures often include financial accounting and reporting, procurement and assets management. Large organizations have internal audit departments that provide independent reviews of activities and report to the heads of the organizations (Simson et al, 2011).

To ensure proper control of expenditure, Metropolitan, Municipals and District Assemblies are expected to establish a control system and committee planning in such a way that the budgeted funds are not above what parliament has approved for certain activity, and it carries with the budgeted amount. These elements of control are applied by the Ministry of Finance to match the accrual resources in the budget (Walsham, 1988). Duplicating of work is where two

persons doing the same job or one person doing it over and over again. The GIFMIS automation avoids duplication, saves working time spend in handling, finding, and shuffling paper work by reducing execution times from weeks or days to a matter of hours or minutes. National Audit Report (Malawi, 2014)

Core and Noncore of GIFMIS Modules

The general ledger, accounts receivable, budgetary accounting, accounts payable are the core modules of GIFMIS, while the procurement, payroll system, cash management and commitment control, debt management, budget development, asset management and revenue administration are the non-core modules as shown on the Chart of account below;

The Core Modules of GIFMIS

One of the modules that serves as the foundation for all the subsidiary ledgers both core and non-core is the general ledger. It captures all the administrative activities, begins with the budget allocations, commitment of funds, payment of goods and services. The general ledger module gives a clear view of financial position, the movement of cash inflows and outflows of public institutions. The module is fully integrated with the rest of the modules of GIFMIS and other software that helps in financial and administrative practices of public institutions. It facilitates the posting of all the transactions into subsidiary accounts, applying the rules established by chart of accounts. The account receivable module is capable of managing the categories of inflows that the budget units receive, comprising of non-taxable incomes from sales of goods and services, plus other fees or commissions. The account receivable modules are able to generate bills, process, records the inflow and outflow of cash.

The budgetary accounting module helps to get accurate budget that are reviewed, recorded, approved and authorized by the legislature. The accounts payable module is subsidiary to the general ledger, it has an important system like procurement which is used to prepare vouchers and invoices for various expenditures, maintains a record of liabilities, authorized payments, monitor, avoid arrears, interest payments, and penalties, manage payment efficiently to utilize discounts

The Non-Core Modules of GIFMIS

One of the modules for GIFMIS non-core functionality is the payroll systems. All receipts and payments are captured in the module.

Information to be captured on the payrolls is: employee benefits, salary, allowances (critical support premium) and deductions such as income tax, employees' social security fund and employees bank account information etc. The Human Resource Management Information System (HRMIS) is software that runs on GIFMIS platform and integrates with payroll management system that CAGD has introduced as part of the reform for efficient management of public fund, salaries and other service employees benefit (News Ghana, 2014). GIFMIS integration of payroll has reduced the ghost names that were prevalent in the public sector. The management of every institution of Ghana has to validate the employees of that institution by the system called E .S. Payment Voucher, from 15th to 20th of the month before payment is affected. In order for public institutions to maintain an up-to-date picture of liquidity position and cash requirements the cash management system was introduced. The cash management system can be found in the Budget Units of the MOF, and data are received by revenue department for the collections of revenues, as well as debt

from the debt management system. The GIFMIS includes functionality for budget planning in order to prepare the annual budgets. GIFMIS is integrated with the budget preparation system which aids in assessing the budget proposals, data exchange and separate application projections, macro-economic analysis.

For a GIFMIS system to maintain public information on domestic and external borrowings, a debt management system is required. It comprises information on loan and other transactions, fiscal policy formulation, like forecasts of drawdown and debt-servicing liabilities. Revenue administration module assists in formulation of tax policies and generation of income; taxable and non-taxable and ensures that these revenues are properly accounted for.

The Procurement module allows institutions to generate local payment orders (LPOs) after it has been seriously scrutinized. When funds are not available, the system is able to reject procurement at the initial stage that the local payment orders have been issued, especially when cash control and commitments would be breached should the purchase go on. Ghana is the largest purchaser, application of digital technology and procurement opportunities for improvement to the public is paramount and it is the reason behind the introduction of Procure to Pay (P2P) that integrates with the GIFMIS in 2012, (Zsidisin, Ellram, Carter & Cavinato 2004).

GIFMIS Challenges

There are elements that account for slow implementation of GIFMIS in the Metropolitan, Municipal and District Assemblies. They are as follows:

Change Management

Kurt Lewin a psychologist in early 40's brought the concept of managing and removing resistance to proposed changes taking place in public institutions. Kurt stated in his work that for effective organisational change, individual behaviours must be addressed. Murphy (2002) stated in Lewin framework that potential change is resisted by forces in opposite direction. There are six primary reasons of resisting change, according to Saunders in 1950s book "resistance to change -analysis and prevention". They are: when the change is not clear to the management that influence the change, when the change is subject to a different interpretations, if those influenced sensed that strong forces dissuading them from a change, if those who influence have put pressure on those influenced to make it instead of them having views in the nature of the change, if it is on the personal grounds that the change is made and finally, if it ignores established institutions in the group (Diamond & Khemini, 1999).

Staff Skills and Capacity to Operate the System

One of the main challenges of GIFMIS is lack of adequate human resource. To curb this problem, the public service organisations need to organise workshops and training programs regularly to achieve the needed results.

In the Ministries and Departments. there are few skilled labours and after they have acquired enough skills, they move from the Ministries to the Metropolitan, Municipals and District Assemblies where there is a burden for the government on the system usage. It is necessary that the government motivates workers after the training.

Lack of Clarity in Ownership of the GIFMIS and Clear Authority to Implement The GIFMIS

It is very unclear as to who should manage the GIFMIS project, whether Controller and Accountant General's Department or the Ministry of Finance or both. The Accountant General's Department is in charge of government accounting while the Ministry of Finance is managing the budget sector. The MOF determines how the resource should be allocated, while the CAGD makes the regulations and also exercise control of the GIFMIS functions. It can be seen that the roles of managing or implementing the GIFMIS are shared. It is observed that to ensure commitment and transparency, the government should resolve the ownership issues (Khemini 2005).

The Neglect to Sell the System to Agencies

It is important that organizational managers will sensitize their staff about the need to accept the GIFMIS program because it will serve as source where useful financial information will be obtained in order to manage their institutions well. GIFMIS must not be seen as a tool to control public institutions else it will threaten successful implementation of the program. Public institutions must try to develop their information systems so that they can take opportunity of the GIFMIS. It is important that the government will involve the members of various institutions in the project implementation committee (Diamond & Khemini, 2005).

Lack of Training

The new legal and regulatory framework must be part of the staff training so that they can perform their administrative function very well. There is the need to establish fully- new codes, classifications, business procedures,

new practices at the initial stage of the GIFMIS development. Additional futures must be added to the staff training to suite the need of the organisations. A large part of the training should be on-the-job training, and “Super-users” should be given a bigger portion of on- the- job training, which means the trainers must be sent to the decentralised institutions that are implementing the GIFMIS program and it is essential that, the trainers are given permanent services (Bretchsneider, 1993) cited in (GIFMIS Newsletter; 3rd edition, 2016)

Empirical Review

This section tends to show related study and examine the research gaps.

A study by Asah (2014) on Assessment of GIFMIS Public Sector Procurement. The study was to assess the Ghana Integrated Financial Management Information System (GIFMIS) in terms of number of transactions processed, user friendliness of the system, training programmes on the system, participants’ satisfaction levels of the training programmes, performance of the advocates, responsiveness of the service desk, and problems encountered by users of the system. A questionnaire survey approach coupled with interviews was adopted for the study. Data from the survey were largely analyzed using descriptive statistics. From the study, the level of usage of GIFMIS in Accra was ascertained and prevailing challenges associated with the usage were also found. Findings from the study point to a very significant rise in the number of Procure to Pay (P2P) transactions over a period of one and half years. The P2P system was user friendly although there was need for improvement. Ninety five (95) people, on average, were trained in every training session. Participants in the training programmes were satisfied but not with all the segments. The trainees were „ill-at-ease“ in report generation and period end processes of the

system. The advocates were doing most of the work in the MDAs. In most of the MDAs the personnel involved in P2P analysis did not practice data entry and report generation processes after the training sessions. Performance of the advocates was satisfactory. Responsiveness of the service desk was also satisfactory. Problems associated with the use of the system were also iii outlined. It was recommended among others that more training be provided on period end processes and report generation, the personnel involved in P2P analysis in MDAs should gradually be weaned away from the advocates, and the space between the list of transaction.

Furthermore, a study by Yussif (2019) on the impact of GIFMIS on accountability and transparency. The study aimed at examining the implementation of GIFMIS and how it has impacted accountability in Ghana. The study employed a qualitative study on 40 respondents from Ministry of Lands and Natural Resources and observed that the introduction of GIFMIS has helped in revenue mobilization, promotes Efficiency, Transparency and Accountability of Public Financial Management. Lastly, the study found that GIFMIS has helped enhance the timely dissemination of vital information within the Ministry of Lands and Natural Resources.

More also, a study by Yeboah (2015) on Public sector Financial Management reforms in Ghana. The study examined the implementation of IFMIS in Ghana and also explored the accountability frameworks in the implementation of IFMIS in Ghana. To achieve the objectives of the study, the study adopted a qualitative case study approach. Key stakeholders in different political regimes who were and are directly involved in the implementation of the Ghana Integrated Financial Management Information System (GIFMIS)

reform programme were interviewed. Findings of the study suggest that, unlike previous public financial management reform programmes, the GIFMIS was internally generated. Moreover, the implementation strategies of the GIFMIS programme have been informed by experiences from the implementation previous programmes, especially the Budget and Public Expenditure Management System (BPEMS). The results of the study also suggest that, largely, stability in the political governance system promotes sustained political support and commitment, and hence facilitate the effective implementation of public financial management reform programmes. It is recommended that the legislature demonstrate the same level of commitment shown by the executive arm of government to provide adequate legislation to support the GIFMIS and future public financial management reform programmes.

Again a study by Ametefee(2019) on evaluation of GIFMIS on Financial reporting;

The study generally evaluated the Ghana Integrated Financial Management Information System (GIFMIS) of financial reporting quality of Ghana Education Service (GES). The study specifically examined the weaknesses that characterized BPEMS, the extent to which GIFMIS addresses these weaknesses, its critical success factors, and the challenges encountered. The qualitative research approach was used to investigate the study. Interviews were used to gather data from respondents. These respondents were selected using purposive sampling. The outcome of the study showed that BPEMS was characterized by weak budget formulation, preparation, and lack of ownership, lack of proper accounting and monitoring system, and lack of quality and timely data on government resources. The impact of GIFMIS was found as improved

and easy consolidation of financial data, timely production of public accounts, improved transparency and record keeping, improved budgetary control, efficiency in payment processes, and a host of budget execution reports. Further, the key critical success factors of GIFMIS were found as strong political support, high level administrative support, strong local technical team, consciousness of past experience, and donor review and technical advice. Finally, the study found that the challenges facing GIFMIS comprise legislative limitations, inadequate ICT infrastructure, low computer literacy rate in the Ghana Education Service and poor change management. From a policy perspective, the outcome of the study suggests the need for a comprehensive review of existing financial laws to complement the changing business processes, the need to invest in ICT infrastructure in public sector, and retraining of Ghana

Research Gaps

The gap, also considered the missing piece or pieces in the research literature, is the area that has not yet been explored or is under-explored. This could be a population or sample (size, type, location, etc.), research method, data collection and/or analysis, or other research variables or conditions. This section tends to review the above studies.

From the review as stated above, though relentless efforts are made for a smooth implementation of the system and usage but to test the impact it would have on managing the limited resources of the country, for that matter budget commitment to control expenditure. Many of the research were done outside the Bono region, others too example the work of Ansah (2014) showed that, the

trainees were not trained enough which would be difficult to know if they can use the system to get the intended outcome. Yusif (2019) also researched on transparency and accountability which means proper expenditure management but the study done in Accra could not be generalized in Bono Region. This and other related issues informed this research. .

This research is seeking to find the benefit; usage of GIFMIS has on the Financial management in MMDAs in Ghana, specifically in the Bono region, to establish the fact that the country also enjoys the benefits in the usage of GIFMIS.

Conceptual Framework

Information needs, according to Fitch (2014) pointed out that “data are the primary focus of social work research whether they are quantitative or qualitative. For example, all social work research texts build upon the centrality of data in being able to answer research questions”. GIFMIS capture data or transactions to the system, processed them as information; that is labeled as asset type, revenue type or expenditure type and the reporting gives an understanding of the transaction being processed.

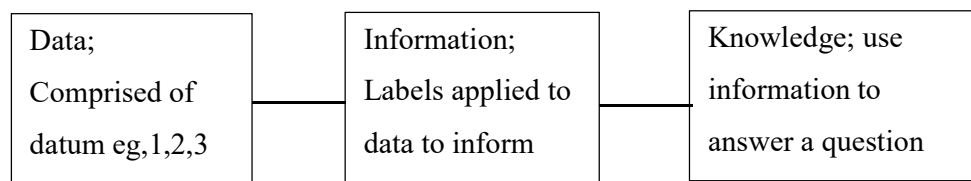


Figure 2: Conceptual framework

Source; Author’s construct (2020)

Data is the raw information captured on the system, which comprises the capturing of revenue, raising a payment voucher, issuing stores receipt

advice among others. This information is the primary data to be captured before the system labels or processed it.

Information on the other hand is dependent on the data captured by the user, a wrong data captured shall be labeled wrongly. Knowledge is also dependent on the information type processed to give meaningful information to users, also it answers the question in the form of data being processed as information type.

Chapter Summary

This chapter was dedicated to literature on studies related to GIFMIS implementation, benefits and how it has been able to impact on Public expenditure.

Various concepts of Financial management were discussed, information system theories that laid the bedrock of the implementation of GIFMIS, modules of GIFMIS which include the core and non-core modules. Benefits of the system were discussed at length. The theories used were the Fiscal decentralization and resource dependency theory which would remind the country the limited resources and how to utilise it for the good of the country. The chapter also assessed the challenges of GIFMIS, reviewed related studies on GIFMIS implementation and how it has impacted on Public expenditure and explained a conceptual framework of the study.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter explains the skills and processes used in carrying out the study. It presents the study population; it shows the respondents how they were selected. This chapter also offers the research design, the instrument, data collection procedure and data analysis.

Research Design

Research design is the plan, structure of investigation conceived so as to obtain answer to research questions and to control variance (Wiersma & Jurs, 2009)

It accommodates the various strategies that the researcher used for his research work. The descriptive survey research design is used to establish the relationship of the usage of GIFMIS and its reliability to control expenditure.

This methodology has the following characteristics: it employs an objective approach therefore the researcher is independent from the phenomena that is being studied. (Minani 2012) employed this method to study how IFMIS enhances effective financial decision making in Tanzania. Zheng, Schachter, and Holzer (2014),

The survey design has the following strengths. According to Babbie (2005), surveys are particularly useful in describing the characteristics of a large population.

Surveys especially self-administered ones-make large samples feasible. Also, surveys allow one to ask many questions on a given topic, giving him/her the considerable flexibility in his/her analysis.

Whereas an experimental design may require you to commit yourself in advance to a particular operational definition of a concept, surveys let you develop operational definitions from actual observations. Additionally, standardized questionnaires being part of survey design have an important strength in regard to measurement generally.

“Survey research also has several weaknesses” (Babbie, 2005: p285). First, the requirement of standardization often seems to result in the fitting of round pegs into square holes. By designing questions that will be at least minimally appropriate to all respondents, you may miss what is most appropriate to most respondents. In this sense, surveys often appear superficial in their coverage of complex topics. Again, survey research can seldom deal with the context of social life. Although, questionnaires can provide information in this area, the survey researcher rarely develops a feel for the total life situation in which respondents are thinking and acting that the participant observer can. In addition, surveys are usually inflexible. Studies involving direct observation can be modified as field conditions warrant but surveys typically require that an initial study design remains unchanged throughout.

In spite of these weaknesses, the questionnaires were designed to delve deep and to seek the needed information from the respondents. Again, the questionnaire items were made to cover a wider scope and so some of the things that may emerge to call for a change in the study design will be catered for.

Type of Research:

The type of research adopted for this work is quantitative research. According to Dudovskiy (2019), quantitative research describes, infers, and resolves problems using numbers. Emphasis is placed on the collection of

numerical data, the summary of those data and the drawing of inferences from the data.

Quantitative research generates numerical data or information that can be converted into numbers.

It focuses more in counting and classifying features and constructing statistical models and figures to explain what is observed

The purpose is to quantify data and generalize results from a sample to the population of interest. It involves the use of structured techniques such as questionnaires or telephone interview

Research Strategy and Approach

A survey was done and the responses helped in drawing a comprehensive analysis to the study.

The survey was done by collecting sample from the targeted population to get the respondents required to answer the questionnaire.

The approach to this research is deductive. A deductive approach to research is the one that people typically associate with scientific investigation. In this approach, the researcher studies what others have done, reads existing theories of whatever phenomenon he or she is studying, and then tests hypotheses that emerge from those theories. According to Streefkerk (2019), the deductive research approach consists of four stages: Start with an existing theory; Formulate a hypothesis based on existing theory; Collect data to test the hypothesis; and Analyse the results: does the data reject or support the hypothesis

Sources of Data

To achieve the purpose of this research primary and secondary data were used. The primary data was gathered with the help of the questionnaires from the participants and journals, articles and books for the secondary data.

Population

According to Babbie (2005), the population for a study is that group (usually of people) about whom we want to draw conclusions. The target population was the 12 Municipal

and Districts Assemblies in Bono Region. The target population for the study comprises management, procurement officers, budget, stores, directorate and accounts staff of the MMDAs in the Bono Region.

Sample Size and Sampling Technique

According to Neuman (2006), the purpose of sampling is to obtain a small collection of units or cases from which the researcher can analyse and ensures that the result produced is a good representation of the entire population. Instead of involving the entire population of the study, the researcher applied a simple random sampling technique to select six districts out of the 12 districts in the region.

A paper with the names of the districts were torn and was placed in a bucket, each of the papers had a chance of randomly selected. However, 3 Municipalities and 3 Districts namely Dormaa, Sunyani East and West Municipal, Dormaa East and West as well as Jaman South District were selected. The same method was used for the respondents with the exception of Directors and Finance Officers who were chosen solely because they are one in all the assemblies. Also Dormaa West had only 2 budget officers so they were

all chosen. The other respondents are the Budget Analyst and staff, the Procurement Officer, the Store Keeper, the Account Officers and System Administrators as per the table below.

Table 1: Population Sample

NUMBER	POPULATION 155	SAMPLE SIZE 54
1	45	3*6=18
2	20	2*6=12
3	30	2*6=12
4	40	2*3=6
5	20	1*6=6
TOTAL		54

Source: Field survey (2020)

Research Instrument(s)

Questionnaires were developed to collect data from the respondents. Questionnaires were deemed appropriate because the population under study were literate (who can read and write). Questionnaires, according to Selltiz, et al (as cited in Sarantakos, 1998), are less expensive than other methods. They also produce quick results. They can be completed at the respondents' convenience. Questionnaires can again offer greater assurance of anonymity. In addition, they offer less opportunity for biases or errors caused by the presence or attitudes of the interviewer.

However, according to Sarantakos (2005), questionnaires do not allow probing, prompting and clarification of questions. They do not offer opportunity for motivating the respondents to participate in the survey. Moreover, they do

not provide an opportunity to collect additional data. In addition, it is not possible to check whether the question order was followed.

In order to compensate for these limitations, the questionnaires were made clear and simple to read and understand. Thus, simple language was used to construct the items on the questionnaires to avoid ambiguity. So there was no difficulty in providing answers to the items on the questionnaires. In addition, a cover letter was developed for the questionnaire in order to motivate the respondents and increase the response rate. According to Sarantakos (1998), a cover letter aims among other things to neutralise any doubt or mistrust respondents might have about the study and to motivate them to participate in the study and answer the questions.

The respondents were made to answer the same sets of questions. The questionnaire comprised two parts. The first part dealt with the demographic characteristics of the respondents. The second part dealt with questions that elicited responses to answer the research questions.

The responses on the questionnaires were put on a four-point Likert type scale in a descending order from “Strongly Agree”, “Agree”, “Disagree” to “Strongly Disagree”.

The Likert scale was deemed appropriate because it is the most universal method for survey collection and for that matter, is easily understood. Also, the responses on the scale are easily quantifiable and subjective to computation of mathematical analysis. Moreover, the responses are very easy to code when accumulating data since a single number represents the participant’s response. Again, Likert surveys are quick, efficient, and inexpensive method for data collection. In addition, the Likert scale has high versatility and can be sent

through mail, over the internet, or given in person (LaMarca, 2011). Before the questionnaires were sent out for data collection, they were shown to experts and supervisors in the Economics and Business Administration Department of the Catholic University College of Ghana whose comments and suggestions helped to improve reliability and validity of the instrument.

Data Collection

The primary source of data was collected by administering questionnaires to respondents for the study. Primary data was collected on the personal information of respondents, the impact of GIFMIS on financial management, the reliability and effectiveness of the implementation of GIFMIS in controlling expenditure and the challenges observed by users in the use of GIFMIS. The study also collected secondary data which included a review of literature and reports relevant to the study. The secondary data was mostly collected from journals, articles, dissertations, books and internet materials.

Data Collection Procedure

The survey was carried out by the researcher himself in the study area. Self-administration of the instrument was deemed necessary to ensure co-operation from the respondents than contracting others to assist in its administration. To further facilitate co-operation from the respondents. Participants were also assured of their confidentiality.

In addition, the respondents were given a brief on how to answer the questionnaire.

Data Analysis

The study adopted the quantitative method of data collection techniques. Quantitative data was collected by the use of questionnaires. Computer software

such as Microsoft excel and SPSS were used to analyse the data and its significance.

SPSS was also used to analyse the data through regression to check the significance or otherwise of the study. Mean and standard deviation were also used to explain the variables. Tables, bar graph and pie chart were used to display the result of the study to ensure maximum clarity and objectivity.

Ethical Consideration

The ethical issues of this research is very vital as it is requested from Catholic University College of Ghana as part of my partial fulfillment of my Master of Business Administration in Accounting option. The research when completed shall go a long way to help MMDA's appreciate the role GIFMIS when used would impact on financial management and also to government appreciate the benefit of its full implementation. To achieve these, the research must be well designed and conducted.

The population of the research were made aware their substantial contribution to the research and also their extent of involvement throughout the study before agreeing to participate. The identities and information about the participants would remain confidential and secured.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents a detailed analysis of data collected during the study. The first part presents analysis of personal information of the respondents of the study. The second part details an analysis of data on the impact of GIFMIS on financial management, the reliability and effectiveness of the implementation of GIFMIS in controlling expenditure and ends with challenges observed by users in the use of GIFMIS.

Personal Information

The personal information of the 54 respondents are presented in Table 4.1 below. Results of data collected indicated that the majority of the respondents are males (72.2%) while 27.8% are females.

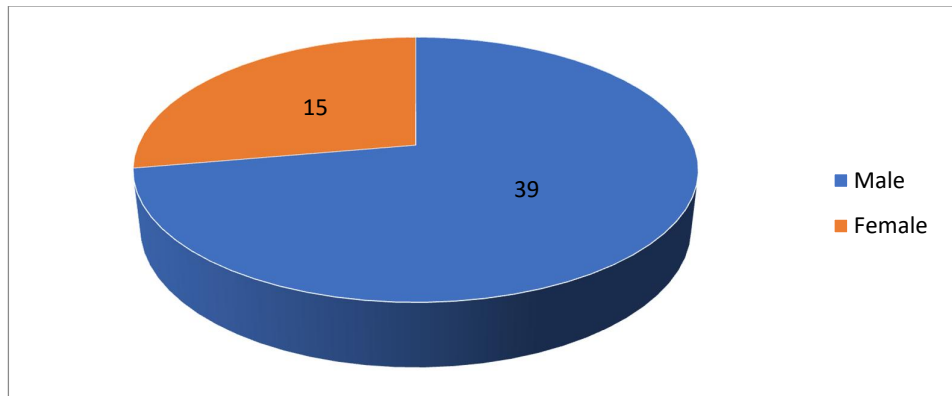


Figure 3: Personal information

Source: Field survey (2020)

The majority of the respondents (83.3%) are between the ages of 30 and 50 years while 9.3% are below 30 years with only 7.4% above 50 years. This clearly indicates that most users of GIFMIS fall within the youthful bracket.

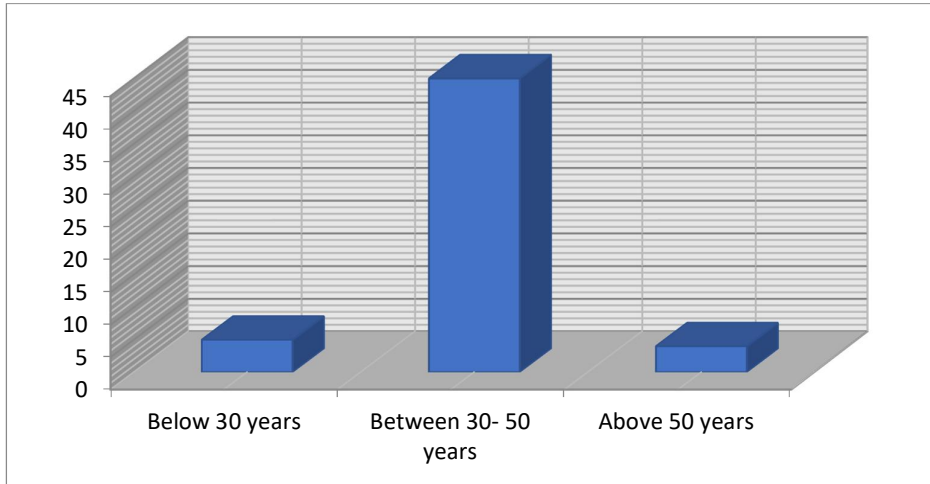


Figure 4: Age Distribution

Source: Field survey (2020)

Results of the study also reveal that the majority of the respondents are account officers (37.0%) followed by procurement officers (25.9%), budget officers (16.7%), with 7.4% each being directors and finance officers while 5.6% are system administrators.

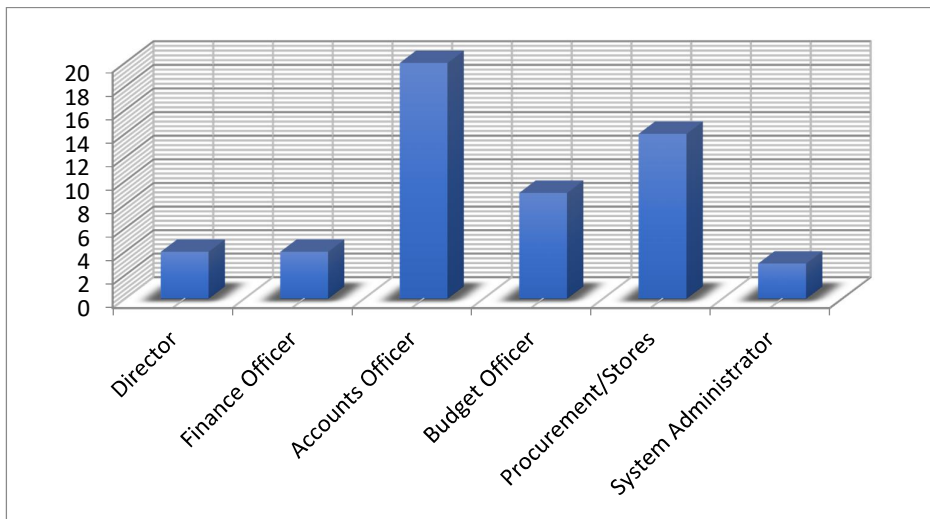


Figure 5: Rank of respondents

Source: Field survey (2020)

Of these users of GIFMIS, majority are preparers (68.5%) while 20.4% are reviewers with only 11.1% being approvers. On their educational

background, majority of the respondents (50.0%) are degree holders while the remaining 33.3% and 16.7% are HND holders and professionals respectively.

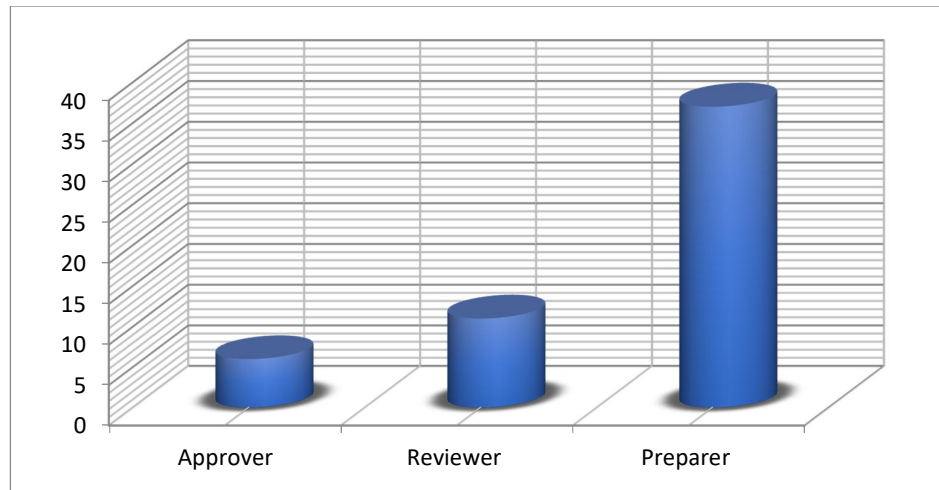


Figure 6: Position of respondents

Source: Field survey (2020)

As shown in figure 6, the majority of the respondents have worked with their institutions for less than 15 years while a few of them have worked for more than 16 years. This indicates that most of the respondents have not worked with their current institutions for an extensive period of time probably because the majority of them are still in their youthful ages.

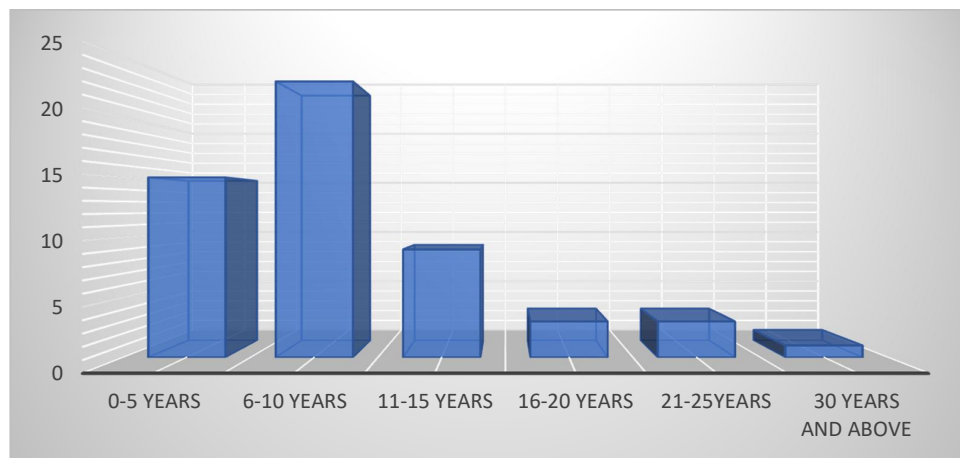


Figure 7: Years of work distribution

Source: Field survey (2020)

Part Two: Answers to the Research Questions

The second part of the questionnaires were set to seek answers to the research questions. The subsequent sections present details of the analysis, results and discussions.

Section A: Research Question

Does the usage of GIFMIS brought about reliability and effective control of expenditure?

This section presents the reliability and effectiveness of GIFMIS in controlling expenditure, however some of the indicators are; payment voucher can only be raised when warrant is released, expenditure should be monitored through GIFMIS, the system should be able to strengthen the internal controls, GIFMIS usage should reduce the cost of reporting and GIFMIS helping user's to spend only from budget.

The study sought to find out the reliability and efficiency of GIFMIS for controlling expenditure. Generally, respondents for the study agreed to statements attesting to the reliability and efficiency of GIFMIS in controlling expenditure. According to Mike (2005), the purpose of an IFMIS is to integrate all aspects of a government's budgetary cycle including the release of warrant. This research uses the central tendency to explain the variables and is defined as "the statistical measure that identifies a single value as representative of an entire distribution. It also aimed to provide an accurate description of the entire data. It is the single value that is most typical/representative of the collected data. Mean and standard deviation are used for the purpose of the study.

On the statement of payment vouchers being raised only when warrant is released had a mean of 1.57 an interval/ratio measure of that assertion score,

More also the value for standard deviation was 0.95 which is closer to zero(0) and not too far from the mean.88.9% of the respondents strongly agreed and agreed to that assertion. On the issue of the usage of GIFMIS being reliable to monitor expenditure, the mean score was 1.61 which represents the interval measure of the assertion and a standard deviation of 0.81 which is closer to the mean. Also 90.7% strongly agreed and agreed to this assertion.

According to Simson et al (2011), internal control systems are established in government agencies to ensure that organizations achieve their objectives, policies and procedures which include financial accounting and reporting, procurement and assets management. In further trying to understand the reliability and efficiency of GIFMIS in controlling expenditure, respondents were made to respond to the statement that GIFMIS has strengthened the internal controls to safeguard public expenditure. In all, the mean score was 1.79 which represents the interval measure of the assertion with a standard deviation score of 0.86 not too far from the mean score. Also 86.4% of respondents strongly agreed and agreed to that assertion.

William (2003) argues that GIFMIS offers users timely and accurate information system that supports decision-making, tracks financial events and summarizes financial information. This is also confirmed by Diamond & Khemani (2006) when they indicated that the function of GIFMIS is to integrate, organise, process and make financial information available to departments within the budget units on a routine basis. This prompted the researcher to measure the ratio/interval of the score from the respondents on the issue of the usage of GIFMIS being responsible for reduction in the cost of reporting to which a mean score of 2.20 was obtained with a standard deviation score of 1.1

which also closer to the mean. A percentage of 66.6 of respondents strongly agreed and agreed to that assertion.

As indicated by Chene (2009), a well-designed GIFMIS has certain characteristics that help to control excessive payments. Guided by this, respondents were made to respond to an assertion that the GIFMIS system has helped MMDA's to spend only from the budget. To this, a mean score of 1.89 was obtained with a standard deviation value of 1.02 from the score. A total of 79.6% of respondents strongly agreed and agreed to this assertion.

Table 2: Reliability and Efficiency of GIFMIS

Descriptive Statistics	N	Mean	Std. Deviation
Payment voucher can only be raised when warrant is released on GIFMIS	54	1.53	.94
GIFMIS has strengthened the internal controls to safeguard public expenditure	54	1.77	.86
The GIFMIS system has helped the MMDAS to spend only from the budget	54	1.88	1.02
Usage of GIFMIS is reliable to monitor expenditure	54	1.61	.81
The usage of GIFMIS has reduced the cost of reporting	54	2.20	1.18

Source: Field survey (2020)

Section B: Research Question

To what extend did the implementation of GIFMIS impact on Financial Management?

This section presents the impact of GIFMIS on Financial management and some of the impact are; promoting efficiency in budget implementation, promoting accountability in financial reporting, facilitating ease payment

through electronic transfer, loading of inventories on the system to safeguard state properties and lastly preventing fraud to ensure accountability.

The study also sought to investigate the efficiency and accountability of GIFMIS in financial management. A study by Hove and Wynne (2010) confirmed that GIFMIS is a tool that helps management in allocating and use of public resources to improve efficiency and effectiveness of public expenditure programmes. This prompted the researcher to measure the ratio/ interval and the inconsistencies using mean and standard deviation on the assertion that GIFMIS promotes efficiency in budget implementation for MMDAs. In all, a mean score of 1.64 was obtained and a standard deviation was 0.82 which was closer to the mean.

According to Hove and Wynne (2010), GIFMIS is a tool that succors management in promoting accountability. Guided by this, the researcher decided to measure the score of the assertion that GIFMIS promotes accountability in financial reporting. In all, 1.75 mean was obtained with 0.90 for standard deviation.

On the issue of GIFMIS facilitating payments from MDAs and Treasury to government suppliers through Electronic Fund Transfer, a mean score of 2.03 which is a higher value with a standard deviation score of 1.04.

The issue of IFMIS ensuring transparency in financial management is confirmed by Diamond and Khemani (2006) in their study when they confirm the introduction of (IFMIS) Integrated Financial Management Information System as one of the most common financial management reform practices aimed at the promotion of accountability, transparency, security of data management and comprehensive financial reporting. To this a ratio/interval

measure was used to obtain the mean of 2.18 and standard deviation obtained was 1.28, this further answer the first research question as to the extend GIFMIS has strengthen transparency and accountability in Public financial management.

Most scholarly works confirm that IFMIS is adopted as a result of the inconsistencies and high rate of corruption and mismanagement of public funds (Blackburn & Forgues-Puccio, 2010; Bwalya, 2009 and Estache *et al.*, 2009). According to Chene (2009), the main benefit of GIFMIS is that, it can be used to detect fraud and eschew corruption. The researcher therefore wanted to measure the interval score and the inconsistencies on the assertion that GIFMIS prevent fraud and ensures accountability. In all, a mean of 2.18 and a standard deviation of 1.28.

Table 3: Efficiency Transparency and Accountability in Financial Management

Descriptive Statistics	N	Mean	Std. Deviation
GIFMIS promotes efficiency in budget implementation for MMDAs	54	1.65	.83
GIFMIS promotes accountability in financial reporting	54	1.76	.91
GIFMIS facilitates payments from MDAS and treasury to government suppliers through electronic fund transfer (EFT)	54	2.04	1.05
Loading of Inventory unto the GIFMIS Ensures Transparency in Management of Government Property	54	2.00	.91
GIFMIS prevents fraud and ensures accountability	54	2.19	1.29

Source: Field survey (2020)

Payments and Commitment Control Controls of Budget Fund

According to Chene (2009), the motive behind the GIFMIS implementation is to enhance the budgetary planning and execution by providing decision-makers an accurate and timely data for budget management. The researcher sought to investigate the payments and commitment controls of budget fund. In doing this, the researcher decided to measure the ratio/interval and standard deviation from the score of respondents on the assertion that the GIFMIS system rejects transactions when funds are not available. In all, a mean of 1.67 was obtained and a standard deviation of 0.10.

On the issue of the GIFMIS system being able to track multiple budget process and undue payment to reduce operational cost, a mean score of 1.81 and standard deviation of 0.90 were obtained.

The researcher also wanted to measure the score of the assertion that in using the GIFMIS, an asset budget cannot be used for recurrent expenditure. In response to this, a mean score of 1.83 and standard deviation of 1.02 were obtained and very close to the mean.

In further investigating the payments and commitment controls of budget fund, the researcher sought to measure the ratio/interval and standard deviation of the score on the truth or otherwise in the assertion that any receipts generated by the Assemblies are captured on GIFMIS. In all, a mean score of 2.35 and a standard deviation of 1.20 were obtained.

According to Barry (2001), GIFMIS is an Information Technology solution that integrates, collects and organises financial information in a central database to support harmonized financial reporting. Therefore, on the issue that

there is harmonized reporting format for all MMDA's using GIFMIS, a mean score of 1.81 and 0.10 score for standard deviation were obtained.

Also, on the issue that financial statements can easily be printed out from GIFMIS, a mean score of 2.13 and a standard deviation of 1.24 were obtained.

Table 4: Payments and Commitment Control Controls of Budget Fund

Descriptive Statistics	N	Mean	Std. Deviation
The system rejects transactions when funds are not available	54	1.67	.10
The GIFMIS system is able to track multiple budget process and undue payment to reduce operational cost	54	1.81	.89
An asset budget cannot be used for recurrent expenditure on GIFMIS	54	1.83	1.02
Any receipts generated by the assemblies are captured on GIFMIS	54	2.35	1.20
There is harmonized reporting format for all MMDAS using GIFMIS	54	1.81	.10
Financial statements can easily be printed out from GIFMIS	54	2.12	1.24

Source: Field survey (2020)

Section C: Research Question

What are the major challenges in GIFMIS project implementation?

This research question was set to investigate the challenges of GIFMIS in its implementation. Some of the challenges investigate include: Management not willing to use GIFMIS, Users not trained enough before implementation, Absence of procedure for staff development, The inclusion of MMDCE's on approval hierarchy delays approval, A lot of network challenges and lastly GIFMIS not user friendly.

Generally, respondents agreed that there were challenges with the use of GIFMIS. In delving into the specific challenges, the researcher measured the ratio/interval and standard deviation on the score of the statement that management is not willing to use GIFMIS. A value of 3.72 representing a higher mean and a standard deviation of 1.38 which is not too close to the mean and signifies the inconsistencies.

On the issue that users are not trained enough to use GIFMIS, 2.76 mean was obtained with 1.34 standard deviation. However, a study by Bretschneider (1993) cited in GIFMIS (2016) advocates for exhaustive on-the-job training for users in institutions that are implementing the GIFMIS.

Also, on the issue that there is no laid down procedure for staff development on GIFMIS, 2.49 and a standard deviation of 1.14 were obtained.

In further investigating the challenges in the use of GIFMIS, the researcher sought the views of respondents on the statement that the inclusion of MMDCE's on the hierarchy delays approval. The scores obtained were used to compute a mean of 2.19 and a standard deviation of 1.22.

In responding to the statement that there are a lot of network issues in accessing GIFMIS, a mean score of 1.90 and standard deviation of 1.154 closer to the mean.

On the statement that the security aspect of GIFMIS is resilient, 2.11 mean was obtained and 0.86 standard deviation closer to the mean

Also on the statement that GIFMIS is user friendly, a mean score of 2.13 and a standard deviation of 0.95 were obtained which is closer to zero (0) and signifies less inconsistency. The above scores answers the fourth research question, by identifying the major challenges in the usage of GIFMIS.

Table 5: Challenges Using GIFMIS

Descriptive Statistics	N	Mean	Std. Deviation
Management is not willing to use GIFMIS	54	3.72	1.38
users are not trained enough to use GIFMIS	54	2.76	1.34
There is no laid down procedure for staff development on GIFMIS	54	2.48	1.14
The inclusion of MMDCEs on the hierachy delays approval	54	2.19	1.22
There are a lot of network issues in Accessing GIFMIS	54	1.90	1.15
The Security Aspect of GIFMIS Is Resilient	54	2.11	.86
GIFMIS is user friendly	54	2.13	.95

Source: Field survey (2020)

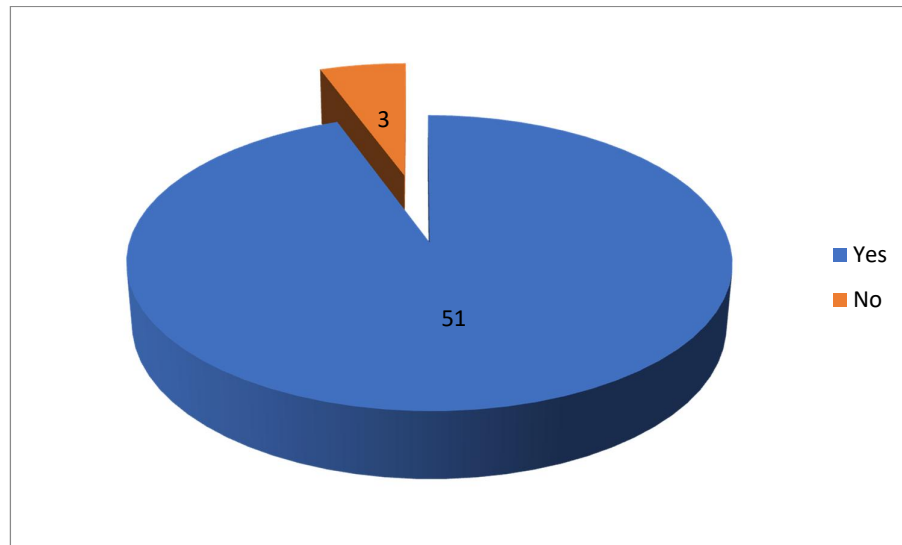


Figure 8: Does GIFMIS help to control expenditure?

Source: Field survey (2020)

Respondents of the study were asked to indicate whether GIFMIS helps to control expenditure or not. In all, 94.4% of the total respondents for the study responded in the affirmative while 5.6% indicated that GIFMIS does not help to control expenditure. Thus, the majority (94.4%) of the respondents were of

the view that GIFMIS indeed helps to control expenditure. This is graphically represented in the figure 4.10 above.

Table 6: How GIFMIS helps to Control or not Control Expenditure

Descriptive Statistics	N	Mean	Std. Deviation
It Promotes Accountability and Transparency in Budget Processing and Financial Reporting	54	1.83	0.44
It restricts users to the right procedures before expenditures are made	54	2.83	0.68
Warrants are released before payment is made	54	1.67	0.40
Users are not allowed to spend above their budget	54	2.35	0.36
It Helps to easily monitor budget expenditure items	54	1.81	0.16
Most MMDA'S are allowed to expend outside GIFMIS When There Is No Network	54	2.13	0.12

Source: Field survey (2020)

In further understanding how GIFMIS helps to control expenditure, the researcher calculated the mean and standard deviation on the score of respondents on the assertion how GIFMIS helps to control or not control expenditure. In all, a mean score of 1.83 and standard deviation of 0.44 were obtained specifically on the notion that GIFMIS promotes accountability and transparency in budget processing and financial reporting. Again, a mean score of 2.83 and a standard deviation of 0.68 were obtained on the assertion that GIFMIS restricts users to the right procedures before expenditures are made. GIFMIS ensures that warrants are released before payment is made on that note a mean score of 1.67 and a standard deviation of 0.40 were obtained. Also, a mean score of 2.35 and a standard deviation of 0.36 were obtained on the view that GIFMIS are not allowed to spend above their budget. A mean score of 1.81

with standard deviation of 0.16 were of the view that GIFMIS helps to easily monitor budget expenditure items. However, for the remaining respondents who were of the firm belief that GIFMIS does not help to control expenditure, they indicated that most MMDAs are allowed to expend outside the GIFMIS when there is no network. They had a mean score of 2.13 and a standard deviation of 0.12 which is very far from the mean. This is presented in Table 4.2 above.

Using ‘GIFMIS has strengthened the internal controls to safeguard public expenditure’ as the dependent variable and ‘The GIFMIS system has helped the MMDAs to spend only from the budget, payment voucher can only be raised when warrant is released on GIFMIS, the usage of GIFMIS has reduced the cost of reporting’ as independent variables, a regression analysis was done. From the summary output below, the correlation co-efficient which is the Multiple R is given as 0.99 which indicates that there is a strong positive linear relationship between the dependent and independent variables, but with the assumption that the regression analysis was conducted at 95% level of confidence, the significance The F statistic (F=0.11) was not significant at a 95% confidence level (Sig. F < 0.05). The R square which is the amount of variation within the dependent variable that is explained by the independent variables is given as 0.992. This means that 99.2% of the variations in the dependent variable is explained by the variations in the independent variables. From the output, the model that exists between the variables is shown below:

$$IV= 3.0022(V1) + -0.413(V2) + -1.934(V3) + 3.7273$$

Table 7: The Output of the Analysis is Summarised

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.7273	2.6364434	1.413763	0.391922	-29.7719	37.2265	-29.7719	37.2265
X Variable 1	3.0022	0.7344852	4.087534	0.152746	-6.33029	12.33475	-6.33029	12.33475
X Variable 2	-0.413	0.1881102	-2.19765	0.271856	-2.80357	1.976765	-2.80357	1.976765
X Variable 3	-1.934	0.7773756	-2.4878	0.243314	-11.8114	7.94354	-11.8114	7.94354

Source: Field survey (2020)

Table 8: Regression Statistics

Multiple R	0.996
R Square	0.992
Adjusted R Square	0.9681
Standard Error	2.0872
Observations	5

Source: Field survey (2020)

Table 9: ANOVA

	Df	SS	MS	F	Significance F
Regression	3	542.44371	180.8146	41.50657	0.113495
Residual	1	4.3562882	4.356288		
Total	4	546.8			

Source: Field survey (2020)

Dependent Variable: GIFMIS has strengthened the internal controls to safeguard public expenditure

Predictors: (Constant), The GIFMIS system has helped the MMDAs to spend only from the budget, payment voucher can only be raised when warrant is released on GIFMIS, the usage of GIFMIS has reduced the cost of reporting' as independent variables, a regression analysis was done.

The Adjusted Rsquare 0.96 confirming the fitness of the model but value of constant produced ($t=1.413$) was not significant at 95 per cent level (Sig. $F < 0.05$). Therefore, there is statistically no significant relationship between independent variables and dependent variable (controlling expenditure). GIFMIS has helped the MMDA's to spend only from the budget with a p value of 0.15 ($p < 0.05$). This means that GIFMIS restricting MMDA's to spend from

budget has contributed to the controlling and safeguarding in expenditure. Also payment voucher can only be raised when warrant is released on GIFMIS with P value of 0.27($p < 0.05$).

This means that GIFMIS has restricted users to raise Payment vouchers only when warrant is released has contributed the control and safeguarding of expenditure. This also confirms (Yusif, 2019) on his work that GIFMIS promotes accountability and transparency. However, at 5% level of significance and 95% level of confidence, other independent variables statistically have no significance relationship on safeguarding and control of expenditure in the MMDA's with p-values as shown in the table above and therefore their coefficients should not be retained in the final model. This further means that the above variables are not sufficient enough to establish the fact that, using GIFMIS has strengthened the internal controls to safeguard public expenditure.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This study sought to provide evidence on the effectiveness of Integrated Financial Management Information System (IFMIS) as tool to control expenditure in the Municipal and District Assemblies in the Bono region of Ghana. This chapter provides a summary of the key findings from the data analysed and ends with conclusions and recommendations based on the key findings of the study.

Summary of Findings

This section provides a summary of the findings which are discussed under sub-themes generated from the objectives of the study.

Reliability and efficiency of GIFMIS

The study found out that payment vouchers can only be raised when warrant is released, the system has strengthen the internal controls to safeguard expenditure and also has helped MMDA'S to spend only from their approved budget. The majority of the respondents affirmed to the fact that the GIFMIS is reliable and efficient to control public expenditure.

Efficiency transparency and accountability in financial management

The majority of the respondents strongly agreed and agreed with a mean score above 3.5 in affirmation to the fact that; GIFMIS promotes efficiency in budget implementation, prevents fraud and ensures accountability. More so, the majority of the respondents strongly agreed and agreed to these assertions.

Payments and commitment control of budget fund

Findings of the study revealed that GIFMIS rejects transaction when funds are not available and assets cannot be used for recurrent expenditure which was been abused at the manual stage of accounting. Again the majority of the respondents strongly agreed and agreed to the assertion that payment and commitment controls budgeted funds.

In all the majority of respondents strongly agreed and agreed with a mean score above 3.5 which affirm to the fact that payment and commitment of funds are within budget.

Challenges using GIFMIS

The study revealed that there is no laid down procedure for staff training, a lot of network challenges were also identified and majority of respondents strongly agreed and agreed to that. More so, the study revealed that users were not trained enough to use the system,. However few responded that management are not willing to use GIFMIS and also inclusion of MMDCEs delay approvals.

Recommendations

The following recommendations have been made based on the key findings of the study.

Training development plan

GIFMIS training should be inculcated in the MMDAs training plan for the year so that users would always be refreshed on the use of the system.

Network

The government must invest in the IT infrastructure which would help a smooth flow of the system and to avert the situation where GIFMIS usage is not successful simply because of poor network system.

Conclusions

The study sought to study the impact of GIFMIS on financial management, the reliability and effectiveness of the implementation of GIFMIS in controlling expenditure and the challenges observed by users in the use of GIFMIS.

Critically examining theories mostly used by research on GIFMIS concentrate more on either technology, communication or on the users, and less on the effects of generating revenue and how to expend or allocate the limited resources. This study therefore considered the important effects of the usage of GIFMIS and how it helps to manage the public purse. This need pushed this study to adopt the Fiscal Decentralization and Resource dependency theories. These theories basically explain how resources are generated and expended and how fiscal issues are decentralized to the people.

The study identified that GIFMIS is efficient and reliable for controlling expenditure, it further confirms to the fact that GIFMIS really has impact on Public Financial management but chalked with challenges like poor network, limited user training and the absence of a laid down procedure for staff training.

Suggestions for Future Researcher

The study focused on some districts in Bono Region, which may be a little difficult to generalise the findings to all the MMDA's in Ghana. Therefore all regions should be catered for.

The study used only quantitative method, further researchers are entreated to mix qualitative and quantitative methods

Again Services and Agencies in the assemblies were not part of the study which may not show a true reflection of the findings to the selected MMDAs. Therefore, future studies on the topic should include them.

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APPENDIX A

GHANA INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM (GIFMIS) DESIGNED FOR MUNICIPAL AND DISTRICTS ASSEMBLIES IN THE BONO REGION

This questionnaire is an academic exercise in partial fulfilment for the award of Masters Degree programme in Business Administration (Accounting option) and the data will not be used in any other way but solely for academic purpose. Your response will be treated confidentially and will not be disclosed to the third party. It is my expectation that you will feel free to give answers to the best of your knowledge.

Please tick the appropriate box where applicable.

PERSONAL INFORMATION

1. Gender
 - a. Male
 - b. Female
2. Age
 - a. Below 30 year
 - b. Between 30-50 years
 - c. Above 50 year
3. Rank
 - a. Director
 - b. Finance Officer
 - c. Accounts officer
 - d. Budget officer
 - e. Procurement/stores

f. System Administrator [].

3.1 Position you occupy.

a. Approver[]

b. Reviewer[]

c. Preparer []

4. What is your education background

a. HND []

b. Degree []

c. Professional []

d. Others []

5. How long have you been working with the institution?

a. 0-5[]

b. 6-10[]

c. 11-15[]

d. 16-20[]

e. 21-25 []

f. 30 upwards []

EFFICIENT AND RELIABLE FOR EXPENDITURE CONTROL

Please indicate your level of agreement or disagreement in with each of these questions.

Please answer the question by ticking the box 1-Strongly Agree, 2-Agree 3-Neutral, 4-Disagree,5-Strongly Disagree

		1	2	3	4	5
6	Payment voucher can only be raised when warrant is released on GIFMIS					
7	Usage of GIFMIS is reliable to monitor expenditure					
8	GIFMIS has strengthen the internal controls to safeguard public expenditure					
9	The usage of GIFMIS has reduced the cost of reporting					
10	The GIFMIS system has helped the MMDA's to spend only from the budget					

EFFICIENCY TRANSPARENCY AND ACCOUNTABILITY IN

FINANCIAL MANAGEMEMENT

		1	2	3	4	5
11	GIFMIS Promotes efficiency in budget implementation for MMDA's					
12	GIFMIS Promotes accountability in financial reporting					
13	GIFMIS facilitates payments from MDA's and Treasury to government suppliers through Electronic Fund Transfer(EFT)					
14	loading of inventory unto the GIFMIS ensures transparency in management of government property					
15	GIFMIS prevent fraud and ensures accountability					

	PAYMENTS AND COMMITMENT CONTROL CONTROLS OF BUDGET FUND	1	2	3	4	5
16	The GIFMIS system rejects when funds are not available					
17	The GIFMIS system is able to track budget multiple process status, undue payment to reduce operational cost					
18	An asset budget cannot be used for recurrent expenditure on GIFMIS					
19	Any receipts generated by the Assemblies are captured on GIFMIS					
20	There is harmonized reporting format for all MMDA's using GIFMIS					
21	Financial statements can easily be printed out from GIFMIS					
	CHALLENGES USING GIFMIS					
22	Management is not willing to use GIFMIS					
23	Users are not trained enough to use GIFMIS					
24	There is no laid down procedure for staff development on GIFMIS					
25	The inclusion of MMDCE's on the Hierarchy delays approval					
26	There are a lot of network issues in accessing GIFMIS					
27	The security aspect of GIFMIS is resilient					
28	GIFMIS is user friendly					

29. Do you think implementation of GIFMIS have or have not control expenditure? Yes/No

30. If Yes or No explain

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