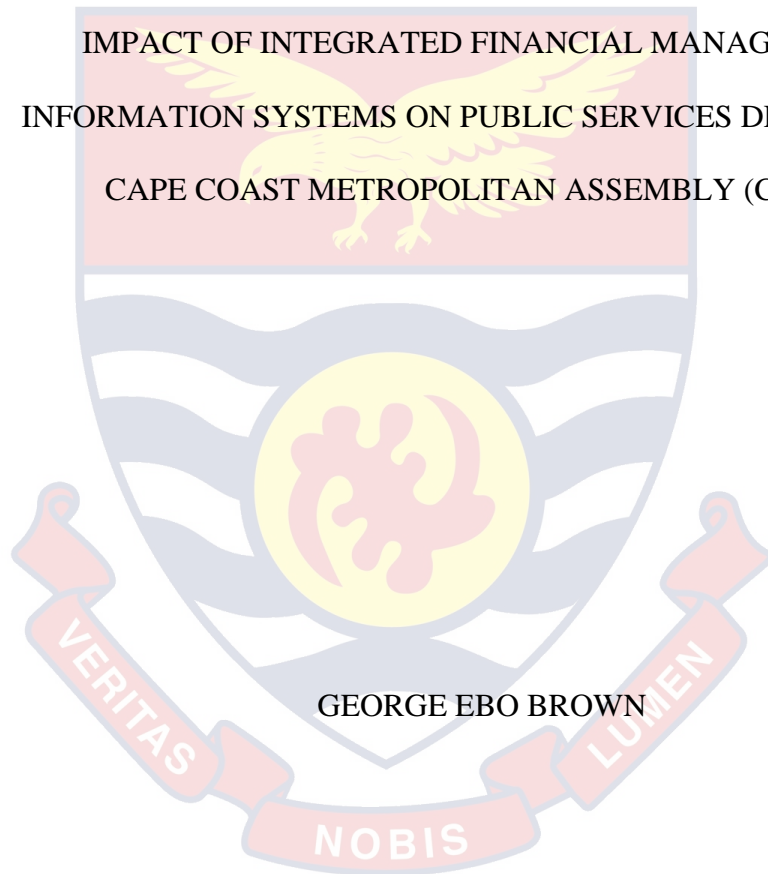


UNIVERSITY OF CAPE COAST

IMPACT OF INTEGRATED FINANCIAL MANAGEMENT
INFORMATION SYSTEMS ON PUBLIC SERVICES DELIVERY IN
CAPE COAST METROPOLITAN ASSEMBLY (CCMA)

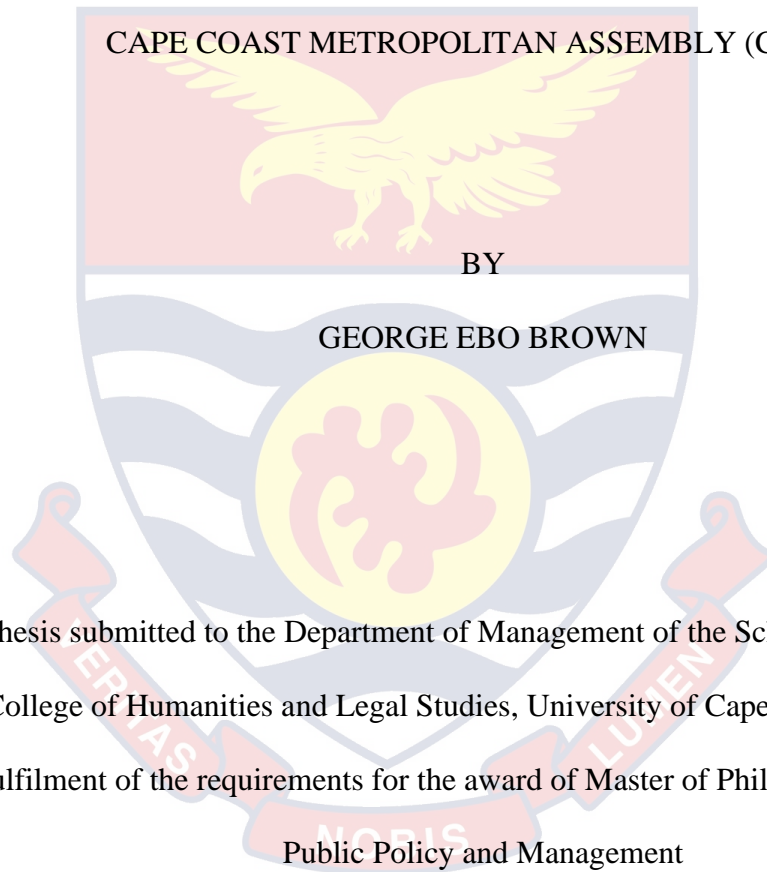


GEORGE EBO BROWN

2021

UNIVERSITY OF CAPE COAST

IMPACT OF INTEGRATED FINANCIAL MANAGEMENT
INFORMATION SYSTEMS ON PUBLIC SERVICES DELIVERY IN
CAPE COAST METROPOLITAN ASSEMBLY (CCMA)



This thesis submitted to the Department of Management of the School of Business,
College of Humanities and Legal Studies, University of Cape Coast, in partial
fulfilment of the requirements for the award of Master of Philosophy degree in
Public Policy and Management

MAY 2021

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: George Ebo Brown

Supervisors' Declaration

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

Supervisor's Signature: Date:

Name: Prof. (Mrs) Abigail Opoku Mensah

ABSTRACT

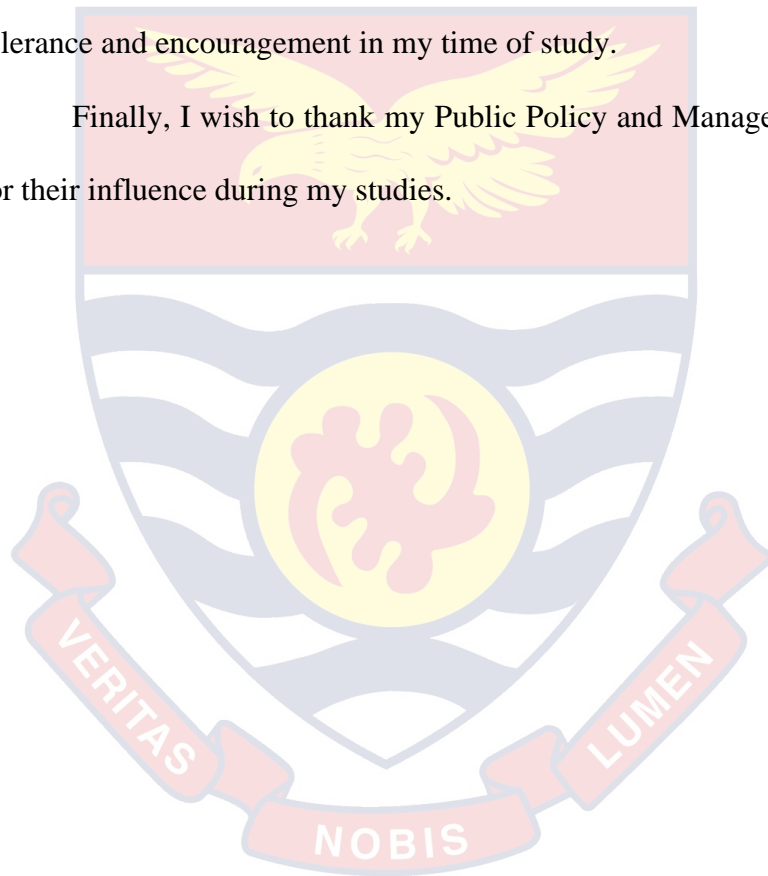
The study explored the effect of GIFMIS on the delivery of public service at the Metropolitan Assembly of Cape Coast (CCMA). Specifically, the study sought to examine the impact of GIFMIS' automated revenue collection, automated budgeting and planning, perceived fraud reduction level and cash management automation on public service delivery. The census approach was employed to include all the 80 administrative staff of the Cape Coast Metropolitan Assembly. Structured questionnaire was used to collect the primary data used for the analyses. In the analysis, both descriptive (mean and standard deviation) and inferential (multiple regression by partial least squares) statistics were used to estimate the result of the study. The results show that the automated budgeting and preparation, cash management, and fraud prevention level of GIFMIS has a positive and significant impact on the delivery of the public service. However, automated revenue collection exhibited positive impact on the delivery public service but it was insignificant. The study recommended that government should introduce steps to reduce the cost of adoption of technical equipment to the minimum barest.

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DEDICATION

To my loving wife, Rebecca Yawa Nfodjo and our daughters Josephine Mame

Adjoa Brown and Jasmine Nana Adjoa Brown.



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CHAPTER ONE

INTRODUCTION

The Integrated Financial Management Information System (IFMIS) is one of the latest public financial management reform programs that governments across Africa are implementing in an effort to ensure quality and transparency in public fund management. Failure to maintain financial transparency acts as a breeding ground for inadequate public accounting, poor regulation of spending, cash mismanagement and financial reporting misstatements. It is needful that Integrated Financial Management Information System is used as the primary tool to ensure quality service delivery in the public sector. The study of Integrated Financial Management Information System and service delivery will ensure transparency and the enforcement of accountability in government.

Background of the Study

A number of developing countries have gradually embarked on automating their government activities over the past decade, mainly with regard to the public sector. This has aroused the interest of the donor community in the standard of public sector financial management (for example, in developing countries). In comparison, Allan and Hashim (2006) posited that funding was generous during the cold war, but only dispersed to political partners with limited questions. The interest in state affairs was restricted in the early years after the fall of the Berlin Wall in 1989, but the position of the state became increasingly prominent in development efforts after the World Bank's report, and especially in the motivation against poverty (World Bank, 2008).

Hopelain (2004) opined that the dominance of the state in the development agenda might result in too much interference in the state economy, too little room for policy making, basic administrative roles, partnering with private investors, and making sure that efficient and secured delivery of public services to vast number of people. In 2003, the Department for International Development (DFID) of the United Kingdom released its public expenditure management guide which stated that there has been a drastic increase in interest in issues of public expenditure among governments, improvement firms and the wider public in recent years. In the eyes of the World Bank, this initiative was seen to provide Africa the capacity to advance to intermediate development stages (DFID, 2003).

The initiative of the World Bank led to the introduction of the Integrated Financial Management Information Systems (IFMIS) as a new technology of which consultants and other government advisors in Africa have started to embrace it as one of the foremost common financial management reform practices (World Bank, 2004). The integration of advanced information structures into the area of public administration is believed by way of many countries, particularly the nations from the west, to have lots of social and financial advantages for their countries. The Organization for Economic Cooperation and Development postulated that information infrastructures within the public region come with expectations of enhancing productivity, developing extra jobs, stimulating monetary growth and typically improving the lives of the conventional populace (Van Audenhove, 2000).

In view of this, many international locations in Africa have brought a reform in the monetary and administrative systems throughout both national,

regional and district level authorities' establishments or agencies. The advocacy for the reforms inside Public Financial Management is majorly encouraged via the tempestuous political history of most African countries, the incessant mismanagement of kingdom funds, concerns of corruption, service delivery, and additionally interior (by citizens) and external (by global development partners) pressures on governments to decorate accountability past of many countries (Andrews, 2010). Part of these reforms includes the adoption of many regulatory frameworks on public economic management, which many countries have enacted with very clear and strong rules and guiding concepts (Muigai, 2016).

Governments in most emerging economies continued to explore various systems and methods that can be used to renovate and strengthen public financial management. For instance, for some years now, the Integrated Financial Management Information System (IFMIS) has been delivered in many international locations as one of the most typical financial management practices which are anticipated to promote accountability, effectiveness, efficiency and transparency (Chado, 2015). The IFMIS is a fiscal tool that integrates all monetary administration functions of governments into one suite of application. The IFMIS assists countries whose administrative and monetary constructions are out of date or has damaged through wars and conflicts with financial management solutions (Kwakye, 2016).

The IFMIS also aimed to promote information protection and management properly as to promote comprehensive monetary reporting (Chado, 2015). However, even though the functionality and widely wide-spread scope of an IFMIS system vary by way of country, it is commonly an

enormous, complex, strategic reform process (Husnan & Pudjiastuti, 2006). Ghana is one of the countries with a strong legislative outline that guides all aspects of public financial management (Muigai, 2016). These reforms led to the enactment of more efficient regulations and laws, such as the Ghana Financial Administration Act of 2003 and the Ghana Auditor General's Act of 2000.

The laws and regulations by the government of Ghana provide guidelines on accountability and budgeting structures, appropriate supervision by the parliament of Ghana, as well as, the key duties and mandate of the main institutions or stakeholders of implementation like the District Assemblies and the Ministry of Finance and Economic Planning. Another aspect of the framework is the creation of the Public Procurement Act of 2003 and the Ghana Internal Audit Agency Act of 2003. The Procurement Act created the Public Procurement Board, which is mandated to make institutional, administrative preparations and provisions for undertaking all public procurement in a non-discriminate, transparent and fair manner. The Audit Agency is also mandated the legislative to facilitate, coordinate and provide quality assurance in all internal audit units at the ministries, department, and agencies (MDAs), as well as the District Assemblies (DAs) (World Bank, 2006).

The foremost aim of the IFMIS application suite is to encourage the practice of good governance across all public sector institutions by helping managers generate and access accurate financial information for performing all administrative and business functions, managing resources, and formulating institutional or national budgets (Chado, 2015; Dressel, 2012).

The IFMIS also helps governments in ensuring efficiency in fiscal management, resource allocation and management and transaction costs. Kwakye (2016) revealed that integrating a sound IFMIS that has a centralized system for treasury functions does not only help underdeveloped countries to control their finances effectively but also promote transparency and accountability, reduces autocracy in our political system and exposes public officials who engaged in corrupt and fraudulent activities.

The goal of implementing a public financial management framework is to increase the effectiveness and efficiency of state financial management and facilitate the adoption of modern public expenditure practices in keeping with international standards and benchmarks (Chado, 2015). The IFMIS has been used, generally, for financial management functions like debt management, payroll accounting, state asset management, budgeting functions, procurement as well as managing general ledgers, accounts receivable and accounts payable. Prior to the adoption of the IFMIS in Ghana, an audit report by the Auditor General in 1966 revealed findings on the problems facing the public financial management systems and structures. The report found issues like poor financial management procedures and practices, weak accounting, untimely recordings, inaccurate accounting recordings, and a breakdown of internal control systems.

The report also found a complete disregard for necessary accounting recording in valued financial record books which were a huge problem to auditing procedures (Kwakye, 2016). Moreover, one of Ghana's Controller and Accountant General made a submission indicating the inability of some government institutions and agencies to submit their financial reports for a

period of ten years. This event was a breach of the Financial Administrative Decree. However, the then government could not do much about the situation since the financial management processes at the time were manual due to the status of the Ghanaian economy. The said decade (1979-1989) was characterised by omissions, misstatements, non-adherence to generally accepted accounting principles, lack of supporting evidence, deviate from Administrative Acts and Decree (Kwakye, 2016).

In 2010, the Government of Ghana promulgated the financial reform known as the Ghana Integrated Financial Management Information System in light of the above challenges. The reason was for the GIFMIS to replace the old manual system performing administrative functions with an Oracle E-business suite, which offers a comprehensive solution to the core problems that were associated with finance operations, governance and performance management process (Kwakye, 2016). The government began the implementation of the GIFMIS in 2010 through a three-stage process, and finally launched the system through all government institutions and agencies at all levels of governance in 2015-at the ministries, public authorities, and the District Assemblies.

Statement of the Problem

The provision of public services is a key determinant of quality of life (Besley & Ghatak, 2007). The delivery of public services are vital to poverty alleviation and key to realizing the Millennium Development Goals (MDGs) both directly and indirectly, i.e. enhancing the availability and affordability of education, health, energy, and information and communication technology services; and alleviating poverty and empowering women through

entrepreneurial and employment creation opportunities in services enterprises respectively (Hernandez Castello, Gil-Gonzalez, Diaz, and Hernández-Aguado, 2010). An efficient and effective public service is required from the government and its agencies to ensure its existence and trust of its citizens. However, effective service delivery which relates cost effective, easy and timely access to the services provided by the public requires an integrated financial management information system (Njeru, 2016).

The application of integrated financial management information system is closely linked to transparency in service delivery in the public sector (Ngugi & Mugo, 2012). This brings to light that the role of integrated financial management information system need not to be underestimated when dealing with how to convey effective service deliver in the public sector, hence, should be largely emphasised or promoted. The expanding desire of the citizens and the better service delivery of the private sectors are demanding the bureaucracy to be time responsive. Hence, the introduction of electronic transaction processing technologies such as IFMIS are required to minimize unethical practices and civil servants are considered to exhibit honesty, openness and fairness.

IFMIS have enabled successful, effective and secure conveyance of public services to tremendous larger part of the citizens through stages that are adaptable, have numerous points of presence and guarantee confidentiality in public service delivery (Mwori, 2016). According to Vani and Dorotinsky (2008), when governments fail to achieve financial accountability, it can denigrate and weaken the public accounting system which leads to mismanagement of public cash, poor expenditure control and mishandling of

financial records. The Auditor General report in 2018 cited a series of financial irregularities within the public financial system, some of which is attributable to weak internal controls on revenue, no budgetary allocation for staff loans, poor documentation for payments and among others.

Ghana has been prone to a lot of misappropriation and lack of an appropriate mechanism to control how public finances are managed. This has led to overspending and very poor service delivery to the Ghanaian populace. The government of Ghana has implemented Ghana Integrated Financial Management Information System (GIFMIS) to enhance the provision of public services through accurate financial reporting for nationwide growth.

However, rigorous empirical studies are yet to be taken to provide quantitative indication of the impact of Integrated Financial Management Information System on public service delivery and this has motivated the study. Besides, most of the studies (Adeosun, Adeosun, Adetunde & Adagunodo, 2008; Giri & Shakya, 2018; Mwori, 2016; Grossman, Platas & Rodden, 2018) have been conducted in the developed countries and failed to focus on a specific information communication technology infrastructure in influencing public service delivery. It is against this background that this study provides a much needed addition to the scant number of studies which examine this issue by taking a specific look at the impact of Ghana's Integrated Financial Management Information System on public service delivery within the Cape Coast Metropolitan Assembly.

Purpose of the Study

This study sought to examine the impact of Ghana's Integrated Financial Management Information System (GIFMIS) on Public Service

delivery within the Cape Coast Metropolitan Assembly. In other words, how effective and efficient the GIFMIS has been towards public service delivery.

Research Objectives

1. Examine the impact of GIFMIS' automated budgeting and planning on public service delivery within the Cape Coast Metropolitan Assembly.
2. Examine the impact of GIFMIS' automated revenue collection on public service delivery within the Cape Coast Metropolitan Assembly.
3. Examine the impact of GIFMIS' perceived fraud reduction level during the procurement process on public service delivery within the Cape Coast Metropolitan Assembly.
4. Examine the impact of GIFMIS' cash management automation on public service delivery within the Cape Coast Metropolitan Assembly.

Research Questions

1. What is the impact of GIFMIS' automated budgeting and planning on public service delivery within the Cape Coast Metropolitan Assembly?
2. What is the impact of GIFMIS' automated revenue collection on public service delivery within the Cape Coast Metropolitan Assembly?
3. What is the impact of GIFMIS' perceived fraud reduction level during the procurement process on public service delivery within the Cape Coast Metropolitan Assembly?
4. What is the impact of GIFMIS' cash management automation on public service delivery within the Cape Coast Metropolitan Assembly?

Research Hypothesis

The hypotheses tested in this study are as follows:

H₁: GIFMIS' automated budgeting and planning positively influences public service delivery within the Cape Coast Metropolitan Assembly.

H₂: GIFMIS' automated revenue collection positively influences public service delivery within the Cape Coast Metropolitan Assembly.

H₃: GIFMIS' perceived fraud reduction level during the procurement process positively influences public service delivery within the Cape Coast Metropolitan Assembly.

H₄: GIFMIS' cash management automation positively influences public service delivery within the Cape Coast Metropolitan Assembly.

Significance of the Study

The overarching worth of this research is that it seeks to critically explore the implementation of GIFMIS, highlighting the core benefits, impacts made so far, and the challenges associated. The findings of this study will aid policymakers in the Metropolis with regards to the implementation of the present GIFMIS and other future major administrative reforms within the public sector. Again, the findings of the study will serve as a guide to regulatory bodies that may need financial information to help establish policies to encourage public financial management transparency and accountability.

Moreover, the findings will serve as a guide for regulatory bodies that need information on finance to mop up strategies that will promote transparency, accountability of the public financial management. It will support players in finance management such as BoG, MoF, CAGD, GRA, and

PPA to understand, share online information that promotes efficiency in monitoring, revenue generation, budget rationalisation and modernisation of the financial reporting process, as well as legal reforms to be carried out to ensure that it is in line with the law and have legal backing. The findings will help the donor agencies who provide funds to monitor their fund, to know the challenges and the resources needed to keep the project on going.

Scope of the Study

The study was restricted to Cape Coast Metropolitan Assembly. The study focused mainly on the IFMIS financial management system impact on service delivery within the Metropolis. Methodologically, quantitative methodology was adopted to achieve the purpose of the study.

Limitations of the Study

One of the limitations to this study was the use of a single case thus making the generalization of the findings limited to only Cape Coast Metropolitan Assembly. Another obstacle is related to my visits made to the Cape Coast Metropolitan Assembly with regards to getting some top management staff handling procurement issues. This is because to management may have less time to provide the information needed for this study. However, the researcher rescheduled several appointments before information could be gathered but this did not affect the reliability of the instruments and the data collected. Finally, time constraints exacerbates the ability of the researcher to compile the responses for analysis. But the researcher had to work extra hard to meet the deadline and this did not affect the quality of responses for study.

Definition of Terms

Financial management: This is an area of management devoted to the proper use of capital and the diligent resolution of capital sources in order to make a business organization understand its pursuits (Bradley 2012).

Public Service Delivery: It alludes to service which is rendered by government to people living within its jurisdiction, either directly through the public sector or through funding provision of services (Mwori, 2016). These services can also be rendered by government agencies and its mission-oriented as compared to private institutions which is normally income maximization (Makanyeza, Kwandayi & Ikobe, 2013)

Integrated Financial Management Information System: It is a tool that brings together all financial management functions in a single application. It is “an IT-based budgeting and accounting system designed to assist the government entities on how to plan budget requests, spend their budgets, manage and report on their financial activities, and deliver services to the public more efficiently, effectively and economically” (Chado, 2015).

Automated Budgeting and Planning: IFMIS has templates for budgets and obligations. The IFMIS budget module helps central government to set the ceilings for expenditure. On the other hand, the commitment module enables the monitoring of the non-disbursed fund balances at particular intervals. According to Peterson (2007), the commitment element is crucial or essential in preventing arrears of public spending. The system is able to reliable, and at the right time, generates the information required. If the machine does not perform the functions as planned it will cease to be useful.

Automated Revenue Collection: The automated revenue collection provides various other benefits and the user capabilities a much more secure revenue management system where more is collected and accounted for at lower costs.

Cash Management: This is the procedure of gathering and managing cash in an organization for, as well as using it for short-term or long term organization activities which includes investing (Kenton, 2017).

Fraud Reduction: Pathak, Naz, R., Rahman, Smith and Nayan Agarwal, (2009) asserted that knowledge from several developed and developing countries indicates that greater transparency leading to a reduction in corruption is fostered by e-governance.

Organisation of the Study

This analysis is to be divided into five key parts. The summary of the research is provided in Chapter one of the research. The second chapter discusses academic literature and the study-critical publications. Chapter three describes the approach which will be used to arrive at the study results. Further the study findings are discussed in the fourth chapter. Chapter five summarizes the analysis and offers suggestions for future studies.

Chapter Summary

This chapter included an introduction, history, and problem statement describing the deficiencies in existing literature that allowed the study to be undertaken. The research objectives were; what is the impact of IFMIS' automated budgeting and planning on public service delivery within the Cape Coast Metropolitan Assembly?; what is the impact of IFMIS' automated revenue collection on public service delivery within the Cape Coast Metropolitan Assembly?; what is the impact of IFMIS' perceived fraud

reduction level during the procurement process on public service delivery within the Cape Coast Metropolitan Assembly? And what is the impact of IFMIS' cash management automation on public service delivery within the Cape Coast Metropolitan Assembly? The subsequent chapter covers literature review on integrated financial management information system and Public service delivery.



CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter analyses the relevant literature conducted in the area of GIFMIS implementation on public sector delivery. This chapter looks at the theoretical reviews, empirical reviews as well as conceptual framework upon which the whole research depends. Theoretical review considered for this study include; Resource Dependency Theory and Fiscal Decentralization Theory. This would be followed by the conceptual framework and ends with the empirical review of related literatures.

Theoretical Review

This section sets the theoretical base for the study and indicates how the theory supports the study. The study proposes to adopt the theories of fiscal decentralization and resource dependency to guide the research.

Resource Dependency Theory

Fadare (2013) postulated that resource dependence theory claims that all organisations rely on resources from their environment and that these resources are in the hands of other environmental organizations (Yusif, 2019). The theory is attributed to the resource dependency theory which is credited to Pfeffer (1973) and Pfeffer and Gerald (1978). In arguing about the resource dependency theory, the authors submit that the key to organizational survival is the ability to acquire and maintain resources. As explained by Hatch (2013), the theory shows how regions and districts “rely on their environment is a function of their need to acquire resources to meet the service delivery (Yusif, 2019).

The selection of this theory was based on its assumptions that: local governments need resources to achieve their development goals; local governments derive resources from their environment (Hillman, Canella & Paetzold, 2000) and that local governments aside their local revenue, also receive funding from the central government where the constraints create competition with other government agencies for funding. The district's growth and development is largely based upon the amount of capital it has at its disposal. This hypothesis relies on some basic assumptions. Next, the district has to provide outlets to achieve its growth goals. Another, the district can harvest wealth from its climate, or several organizations.

The fiscal environment is shifting and public officials appear to be forecasting (Malatesta & Smith, 2014). The presumption in this concept is that district assemblies are often financed from a central supply of authorities apart from their local taxes, the position and restrictions generate competition for funding with other government firms. Strengths and skills are needed by Assemblies, and must understand their climate, discuss with appropriate resources, and make the most of their ability (Matthews & Shulman, 2005). The theory is essential for the study because it exposes the various sources of funding to the Cape Coast Metropolitan Assembly. Again, the theory is relevant to the study due to the fact it will guide the researcher in exploring how GIFMIS has contributed to useful resource mobilization or revenue series inside the Cape Coast Metropolitan Assembly.

Fiscal Decentralization Theory

The theory of fiscal decentralization is widely employed policy measure in public sector reforms. Fiscal decentralization means shifting some

responsibilities for expenditure and revenues to decrease ranges of government (Yusif, 2019). The main focus of fiscal decentralization is the attainment of allocative and efficiency in the provision of public goods and services (Thiessen, 2003). With fiscal decentralization, local governments are mandated to control, use and manage their own financial resources, and are also given the autonomy to decide allocation of public expenses. Also, with fiscal decentralization, elected government officials are held accountable for the discharge of their duties (Oates, 1999).

Many scholars have pointed out that fiscal decentralization is also seen as a capacity for enhanced democratic engagement in decision-making and greater openness and accountability (Ebel & Yilmaz, 2002; Dabla-Norris, 2006). Government officials are more likely to allocate resources productively and do their best to provide optimal levels of economic development and public services when they are closer to the electorate. Ezcurra and Pascual (2008) asserted that decentralization may additionally improve not only as conceivable for accomplishing Pareto efficiency, however also for accomplishing increased monetary equality throughout territories. Ghana's decentralization techniques created and mandated district assemblies as the nearby planning authorities with responsibility for the overall improvement and governance of their district and municipal assemblies (Yusif, 2019).

Linking the theory to this study, fiscal decentralization will ensure experimentation and innovation in the public-service production process as asserted by Tanzi (2000). The experimentation in the lower level spurs technological progress in the production of governmental goods and services. The theory of fiscal decentralization enhances local public service delivery

since local government become responsive to the needs of the people (De Vries, 2000).

Fiscal decentralization has become the greatest obstacle in the process of decentralization in many countries including Ghana, and it consist of sources of income and expenditure utilization generated externally and internally. One major obstacle to the theory of fiscal decentralization lies in the probability of redundancies and duplications in public service provision (Oates, 1972). This arises where each local government agency spends scarce resources to undertake similar projects within a few miles of each other (Yamoah, 2007). Moreover, fiscal decentralization may result in bureaucracies during dispense of public services. Despite all these criticisms, the fiscal decentralization is one of the dominant theoretical paradigms in public (Palmer, Biggart, & Dick, 2008).

Conceptual Review

The Concept of Public Service Delivery

In the public domain, the concept of public service delivery is a concept that normally comes under discussion. The meaning of public service is a service provided by the government to the people in a specific jurisdiction. Services may be provided by the government itself, or they pay a private organization to provide them. For instance, a fire or police department is a government-run agency, but trash pickup provided by an independent contractor is a public service financed by the government. When the term “public service” is mentioned, it brings to mind government agencies and policy changes. Nonetheless, it also represents the brave men and women who put their lives on the line to save others. McGregor (1982) also defines public

service as a service which is provided by government to people living within its jurisdiction, either directly through the public sector or through funding provision of services.

Affirmatively, Ramakrishnan and Reed (2013) further posited that public service delivery basically centres on services provided by a state or government to its citizens. He explains that with this provision, it is either the government does it itself or supports the private sector to provide such services. This suggests that the delivery of various public goods and services is fundamentally the responsibility of a state or government. As such, one could argue that the state has a crucial role to play in ensuring that these public goods and services bring a certain amount of well-being to everyone in need of it. Many studies employ the concept of public service delivery to the efficiency, effectiveness and competence in the performance of the service. Analyzing the delivery of service through efficiency and effectiveness simply connotes doing the right things and the right things being done.

An efficient public service delivery entails comparing performance of the public service with standard and the value judgement on services provided (Gumah & Aziabah, 2020). The concept of public service is more multifaceted, encompassing everything from the director of the local food bank to the nurses administering vaccines at the community health clinic. Policy makers are responsible for decisions that improves or declines the efficiency of the public sector while public administrators take charge of the strategic management of public services. Therefore, it is the duty of the public administrators to design and implement policies shaped by and responsive to the needs and demands of the public. This implies that the activities of the

public service are essential and are therefore to be provided without interruption.

The rationale for state intervention in production of service is to improve the welfare of the public with limited focus on profit-making. Any drift in public service delivery from an active provision of service to a secondary or supporting function overseeing the initiative of private sectors would lead to an increase in profit making as against the welfare of the public. Gumah and Aziabah, (2020) indicates that the commercialization of public services seems to widen the rural-urban gap and increases the poverty for those in rural areas. Andrews and Entwistle (2014) contend that minimizing cost and maximizing production outputs are not the only entities considered in efficient delivery of public service. The allocation, distributions, production and dynamic consumptions of resources are ideal in examining and managing the efficiency of public service delivery.

Allocative efficiency is concerned with the want of the people relative to the goods and services provided. Technically, the public sector can deliver a standard service with a competent personnel, yet if it is not one that the citizenry wants, it can still represent an inefficient allocation of resource. As Cunningham and James (2011) connotes, the level of expectation of the citizen will determine the level of satisfaction of service delivered. Distributive efficiency analysis the distribution of service to the public and the cost incurred by the government and society. Lerner (1944) claims that the efficient distribution of goods is maximized if the redistribution of specific resources from the rich to the poor benefits the society. Andrews and Entwistle on the other hand recognizes distribution efficiency using the Pareto-efficiency

principle. Pareto-efficiency indicates the optimal efficiency of distribution of goods and services when any change in distribution to satisfy one group tends to disadvantage other groups.

Productive efficiency deals with the relative quantity of inputs needed to achieve the primary outputs of production. In the delivery of service, there is the probability of cutting down on quality or quantity of another service. Thus, the cost-effectiveness in providing a single unit of service is compared to the performance of the organization. Due to multiplicity of public organization goals and joint provision of services of different agencies and the vast coverage of public service delivery, it makes it difficult to measure productivity based on a single indicator. In some cases, budget estimations are used to measure inputs, while citizen's experiences measure the quality of public service delivered – volume of services, speed of service delivery, and standard of service delivered.

Dynamic efficiency focuses on the allocation of resources taking into consideration current and future consumption patterns of the society. Barrell and Weale (2010) writes that in theory, government control of market interest rates might safeguard the balance between present and future public consumption. Investing in infrastructures such as schools, football fields and hospital carries the opportunity cost of reducing current consumption while less capital investment leads to a decline in the flow of future benefits (Andrews & Entwistle, 2013). The activities of the public services in becoming dynamically efficient is affected by the political agenda of the government in power. Politicians may invest in projects that entices it citizenry though it is not desirable. The contention between having a

dynamically efficient public service delivery that meets politically motivated service provided give rise to a dilemma for public administrators and the government in the delivery of public service.

In most cases, it is generally observed that the general public crave for these services in large numbers, however, there is some level of constraints in terms of finances or the limited availability of other resources. Ramakrishnan and Reed (2013) also add that aside the inability of governments to satisfy these cravings of the public or make the necessary provisions for all these services, there is also the issue of quality of service which is usually constrained by managerial inefficiency. Following this, it could be seen that the private sector has also taken advantage of the situation; learnt that the solitary way for their survival and growth is to win the hearts of their customers; and as such, is making profit out of the provision of some of these services to the public. Therefore, in remedying these situations, it is prudent that governments deliver these services effectively and efficiently to ensure that the much anticipated level of well-being of the citizenry is realised.

Public Service Delivery in Ghana

The public service delivered in Ghana has gone through various stages of transformation since independence. The movement of the colonial power from Ghana demanded that the new government led by Dr. Kwame Nkrumah needed to fill the gap of public service delivery in the country. There were few competent citizens to occupy the numerous public offices of the country then. Thus, it demanded the initiative of teacher training and nursing training colleges with allowances paid to students to attract more people. Also, there was an increase in the availability of vocational and technical schools to train

more manpower fit to occupy public offices to deliver efficient public service for the country. In the 19th century, the government the decided to transform its delivery of service through the inclusion of ICT.

The initial intention was to computerize all existing government business processes followed by integration. The Structural Adjustment Program (SAP) was the main drive of the government's initiative towards e-government leading to the launch of Ghana's human resource management automations systems. The system involved the integration of payroll and personnel functions into a single database as well as provision for storage and retrieval of personnel records of Ghana's Civil Service employees. In 2000, the Ministry of Communication and Technology was established to continue the revolution of e-government in Ghana. The ministry focus was to establish a robust telecommunication infrastructure and provide e-government services as well as provide better coordination of the information facilities developed in government and private institutions presence online (Asogwa, 2013).

The robust boost in the internet facility across the country and the provision of vital information about the ministries, departments, and agencies providing public services online was sufficient not enough to increase efficiency in public service delivery. In 2007, in the quest to improve the public service delivery system in the country, former President John Agyekum Kuffour initiated Ghana's Citizen's Charter which was part of government's Comprehensive Work Programmes (CWP) to reform the public sector. The Citizen's Charter is a public document that gives citizens and stakeholders essential information about the services or function of each public

agency/department/ministry and how to gain access to the efficient public service delivery in those public officers.

The Citizen's Charter outlined the procedures and standards that public institutions are required to govern their relationships with citizens. It helped to ensure citizens are placed at the center of concern of public institutions and less emphasizes on serving political masters (Ohemang, 2010). This has helped expand the knowledge of the public of where to get proper services and the right office to put out grievances. Also, it has reduced the bureaucracy in the public service sector. With the combination of the Citizen's charter and the e-governance system, public service delivery has been on the rise. There are yet few limitations to the growth of public service delivery. This includes political interference of service, lack of adequate resources and facilities to meet the demand of the people in Ghana.

Benefits of Public Service Delivery

The importance of public services cannot be overstated. According to various research concerning public services, the government is expected to play a major role in responding to terrorism and natural disasters, ensuring food and medicine are safe, and managing the immigration system. Maintaining the country's infrastructure, protecting the environment, strengthening the economy, and ensuring access to education are also the priorities of the government which demand the service of the public institutions. Below is some importance of the public service.

Job Creation

Public service matters for many reasons and represents a viable career option. Simply put, the collection of public service career options is endless,

especially as the lines between government, nonprofit agencies and the private sector become progressively indistinct. Irrespective of where your passion lies, public service presents prospects. The government provide jobs for its citizenry through the public service sector.

Education for Public

Civilians in the public sector especially teachers and health workers help to train and educate the public on issues that are related to the development of the country. Many students have climbed the academic ladder and become great men and women in the society. For example, the COVID pandemic in the country was reduced through the education of the public by the public health workers and the media all of which inform the public of the skills they need to make a positive difference in their community.

Saving Lives

Often, when you ask someone why they entered the public service, their answer is “I wanted to make a difference.” What that looks like varies from person to person. For some, it’s rewriting public policy to effect change in a specific community, while for others it’s working in the field, providing life-saving assistance in emergencies. The concept of saving lives means different things to different people, but the desire to give everyone a fair shot at life underpins nearly every public service role. Working in public service provides a significant source of personal fulfillment. That is working for the purpose of saving the community and lives.

Overview of Public Sector Financial Management

Financial management is the field of business management devoted to the properly thought-out use of capital and the prudent resolution of capital

sources in order to make a commercial company aware of its activities (Bradley, 2012). Over the years, methods have progressed to monetary administration. Prominence used to be on the prison components of coalitions in the early 1900s, the creation of new businesses, and the variety of safekeeping firms should be released to increase capital. Prominence moved to insolvency and reorganisation, to corporate liquidity, and to the rule of protection markets during the economic recessions of the 1930s.

The effectiveness of governments in managing, elevating and expending national assets go a lengthy way to influence, in part, the overall development (Yusif, 2019). According to Yusif (2019), there are remarkable arguments that “effective institutions and structures of public financial management have a vital role to play in aiding the implementation of insurance policies of countrywide development and poverty reduction”. This quest to attain effectiveness and effectively in the administration of public financial resources is the core of Public Sector Financial Management.

According to the Chartered Institute of Public Finance and Accountancy, Public Financial Management (PFM) refers to a system by which financial management sources are planned, directed and controlled to allow and affect the environment friendly and fantastic shipping of public provider goals. PFM can additionally be referred to as the set of laws, rules, systems and strategies used by means of sovereign nations (and sub-national governments), to mobilise revenue, allocate public funds, undertake public spending, account for cash and audit results. It encompasses a broader set of functions than financial management and is commonly conceived as a cycle of

six phases, opening with policy design and ending with exterior audit and evaluation (Lawson, 2015).

To explain the concept of PFM further, Simson, Sharma and Aziz (2011) saw it as the mobilisation of revenue, the allocation of these funds to more than a few activities; expenditure and accounting for spent funds. These definitions endorse that PFM is centred on the efficient and effective use of public funds. As mentioned with the aid of Yusif (2019), better and efficient use of countrywide sources “creates a culture of authorities accountability to the citizen-taxpayer, diversify and make more wonderful public finance, enable long-term financial commitments to citizens, and limit dependence on aid flows”.

The Department of Budget and Management in 2012 also emphasizes that “public financial management enables local government to create its own sources of revenue and ensure that resources are sufficient to meet the priority needs of the people”. It also allows the public sector to exploit some resources to ensure the economy and competitiveness by achieving the results required to produce impulse outcomes that will represent community needs (IFAC, 2012). National and district plans are converted into actions and the provision of services through the public financial management system. It allows for collective decision-making, priorities and fiscal accountability to be shared by people.

The Chartered Institute of Public Finance and Accountancy in 2010 was once of the view that due to the fact that local governments are generally faced with the venture of fewer resources and larger financial demands, there is the need to look out for creative and novel models for producing adequate

revenue to meet service needs and transport inside their jurisdictions of operation. As indicated by using Langlois and Beschel Jr (1998), integrating a complete public quarter monetary administration system is a probably effective device that can help discover, prevent, and facilitate punishments for corruption and fraud.

Yusif (2019) underscores this claim, submitting that “there is the want to make sure inclusiveness in decision-making round the use of funds, transparency in allocations and procurement, ordinary monitoring and unbiased audits and a rolling programme of reporting and evaluation. Public area financial management helps governments to seriously change financial reforms and policies into moves through which environment friendly service deliveries can be achieved, as they a sturdy PFM system “provides for collective decision-making, for residents to specific their preferences and fiscal transparency (Yusif, 2019).

The way in which the public zone does its work is changing. Administrative bottlenecks are moving to modern working methods with a strict chain of commands for public employees to do their jobs according to a defined set of guidelines. There have been efforts for decentralisation and handing over of authority so that people at highly junior ranks now have to take selections with admiration to the excellent information, including financial information, handy to them (Chekeche, 2014). Public Financial Management (PFM) varieties phase of the groundwork of all government activities. It consists of income mobilisation, allocation of the funds to quite a number activity, expenditure, and accounting for money spent.

Integrated Financial Management Information System (IFMIS)

IFMIS brings together all financial management functions in a single application. It is an IT-based budgeting and accounting system designed to assist the government entities on how to plan budget requests, spend their budgets, manage and report on their financial activities, and deliver services to the public more efficiently, effectively and economically (Chado, 2015). Diamond and Khemani (2005) describes it as a common platform and financial system that allows for enhanced consistency and compatibility of financial and fiscal information as well as reduce overall government investment and expenditure in developing accounting systems for every single entity within the whole government machinery.

The collection, handling, storage and dissemination of uttered symbolic, textual and numerical records through a microelectronics-based combination of computing and telecommunications, the outstanding use of empirical technological know-how contributes to an extraordinary degree of effectiveness in the execution of a variety of business functions (Michale, 2001). Information administration gadget is consequently the mixture of information, communication and device factors with management approach to make sure fine records handling retrieval and verbal exchange in a systematic manner. The integration of the records processing and administration in a system is perceived as a beneficial technique of processing and preserving data, controlling and communicating useful facts in the manner that is wished (Goll, 2003).

Among many benefits, an IFMIS system helps governments to enhance resource allocation, fiscal management, resource management and

transparency and accountability. Also, IFMIS integration helps governments to ensure value for money, while fighting or reducing corruption, fraud, and transaction costs. According to Diamond and Khemani (2005), an IFMIS system is made up of, core modules and systems, general ledger, budgetary accounting, accounts payable and accounts receivable, and the noncore or other modules as, payroll system, budget development, procurement, project ledger and asset module. An IFMIS has simulated steps that grant the opportunity to enter data, analyse and achieve financial discipline through real-time access to financial data. Chado (2015) argues that this functional structure approach to IFMIS is for the “purpose of transparency, accuracy and timeliness”.

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

IFMIS in Public Financial Management

In many different ways, implementation has been hypothesised by excellent writers. For example, it was defined by the pioneers of implementation theory, Pressman and Wildavsky (1984), as the number of activities aimed at achieving the objectives set. O'Toole (1995), on the other hand, described policy implementation as “the characteristics of the government's intention and the multitude of actions closer to the consciousness

of the objects of intention”. Implementation of the policy thus encompasses all acts that encourage commitment to a given goal or set goal. The implementation of coverage as a process, output and outcome was concisely conceptualized by Paudel (2009) to this end. Public policy implementation accounts for a series of interconnected actions aimed at achieving the objectives or objectives specified.

These events include authorities' gestures and inactions or the policy maker's option. These actions are intended to achieve a predetermined goal or aim(s). The output of execution is or reflects the achievement of the set or prearranged goals of the frequent items to be achieved. The implementation outcome represents the effects of the policy on society. Implementation effect represents the measurable and noticeable changes resulting from policy or program implementation. Several approaches to executing public policy or initiatives were established by different writers after the ground-breaking work of Pressman and Wildavsky (1984). Extent public policy or program implementation literature has described “top-down and bottom-up” as traditional approaches to public initiative or policy implementation. The PFM's two viewpoints for the implementation of IFMIS policy or programs are;

Top-Down Approach

Paudel, (2009) assessed that the top-down viewpoint to implementing public policy or program, a higher author explains policy priorities and strategies to accomplish them. Corporate administration or political leadership of a state or economy should be the greater authority. The implementation strategies also replicate the views of the coverage manager or regulatory

authority at lower levels of the business under this strategy without group or worker contributions. Consequently, authorities exercise control of the surroundings and the selection of implementers or actors (Younis & Davidson, 1990). According to Paudel (2009), the top-down framework for policy or strategy implementation emphasizes the hierarchical guiding of issues and causes. Paudel (2009) adds that in the legislative vocabulary, the concepts or pillars of the top-down approach are incorporated.

The focus should therefore be put on accountability, implementation of laws, monitoring and unbiased decision-making by implementing authorities, based primarily on technical criteria. A variety of critiques have been received in literature about the top-down approach to promoting media attention and programmes. For example, Berman (1978) suggests that the top-down implementation approach should promote or lead to resistance to new initiatives. In addition, the author claims that the top-down approach does not consider the significance of acts taken in the past because, as its starting point, it relies solely on legislative language. Often known as the required players in the execution of public insurance plans or services are policy or statute framers. That means the opinions or suggestions of the various workers or actors concerned about the implementation are ignored.

Bottom-Up Approach

In comparison to the top-down approach, the bottom-up approach focuses emphasis on both formal and informal partnership (Paudel, 2009; Howlett & Ramesh, 2002). In this approach, in designing insurance plans or services and implementation methods, the opinions or contributions of declining degrees of workers (called street-level bureaucrats) are considered.

They are deemed vital to the insurance plans or services being introduced. Under this approach to implementation, different actors are recognised at the preliminary stages of the policy elements and implementation. According to Paudel (2009), the objective is to develop relationship among them. It is considered that the street-level officials have a well understanding of the problems.

To this end, Paudel (2009) and Winter (2003) suggest that recognizing and involving various players in the implementation of public policies and initiatives helps to identify a constructive framework for implementation. In addition, Bogason (2000) suggests that the bottom-up approach to policy and program implementation decreases resistance to change and thus encourages successful implementation of public insurance policies and programmes. "DeLeon and DeLeon (2002), for instance, notes that" the process of implementation from the bottom up lacks methods for policy or program design. The author stated that almost all policies are organized or enforced by powerful individuals and pushed down on the individuals.

Benefits of the Implementation of the IFMIS in Ghana

Dorotinsky (2003) and Rozner (2008) viewed an Integrated Financial Management Information System as a system able to track and hint all economic and commercial enterprise procedures and are capable to produce a summary of recorded monetary data which can inform management decisions. In other words, an IFMIS is framed to support enough management reporting, policy decisions, fiduciary obligations and the preparation of auditable financial statements (Hendriks, 2013). In his work Rodin-Brown (2008), conceptualised an IFMIS to be a more complex accounting gadget with its

operations configured to match the specifications, wishes and daily operational environment of the organization that installs it.

According to Rodin-Brown (2008), the principal points of crucial for an efficient integration in an IFMIS include the potential of the device to standardize recording and classification of economic data or events, enable inside control over transaction processing, records entry and reporting, as well as enable for convenient recording of frequent day by day transactions within a system designed to do away with pointless duplication of recorded statistics or statistics entry. According to Chêne and Hodess (2009) and Diamond and Khemani (2005), well-designed IFMIS structures have useful points such as a tool for management. The system should be able to provide management with a wide range of financial and non-financial information as well as have an impact on resource use and corruption. Some of the benefits derived from the use of the tools are as follows;

Enhance Budget Management and Monitoring of Spending

The GIFMIS system allows government expenditure monitoring through budget and commitment modules, providing a basis for budget expenditure monitoring (Tsamenyi et al, 2006; Diamond and Khemani, 2006; Kasumba, 2009). The GIFMIS budget module helps central government to set the ceilings for expenditure. On the other hand, the commitment module enables the monitoring of the non-disbursed fund balances at particular intervals. According to Peterson and Davie (2007), the commitment element is crucial or essential in preventing arrears of public spending.

The system is capable of generating the information necessary accurately and at the right time. If the machine does not perform the functions

as planned it will cease to be useful. Public financial management is improved in different ways, but with consistent and accurate information, the aim is to ensure the integrity and trust of the budget. Chene and Hodes (2009) argue that the motivation behind the introduction of GIFMIS is to strengthen budget preparation and implementation by providing decision-makers with reliable and timely budget management data. A more controlled and realistic budgeting process is enabled which enhances the complete integration and control of data on budget execution.

Automated Revenue Collection

According to Sohne (2008), the government must significantly expand its fiscal breadth to meet the growth and opportunities of its constituents in results without incurring regular costly overheads. It has been shown that automated systems are capable of adding major efficiencies to business processes that can lead to increased revenue. Applying technological solutions towards the strategic goals for government will be a key step towards transforming government into an entity that can keep abreast of the necessities, requests and anticipations of today's modern world. The benefits of computerizing revenue collection include; reconciliation of revenue collection to budgeted balances, cost reduction by eliminating use of tickets and engaging less staff, enhance transparency by elimination of duplicate receipts, improved on timely report generation for decision making, online monitoring of revenue, elimination of revenue directly at source without going to the revenue fund, and among others.

Fraud and Corruption Reduction in Public Financial Management

Corruption is defined by Rose-Ackerman (2004) as the misuse of private income or the benefits of public power”. Corruption, especially in the management of public finances, has been described as one of the main impediments to economic growth. Toatu (2004) and Andersen (2009) in their study indicate that there is a clear correlation between the degree of corruption and the size of the public sector. Countries that are developed have very large sectors in the public domain. But this clarifies the heightened level of corruption in the public sector in most developed nations. The chief advantage of GIFMIS is that, it can be used to notice fraud and disdain corruption. “A well-designed GIFMIS has a certain characteristics that help to control excessive payments, theft and fraud (Chene, 2009).

Efforts to decrease the incidence of corruption in public finance management have resulted in the introduction of a number of proposals. The conventional approach to battling corruption in public finance management has always focused on institutional changes, law enforcement and social change, according to Ameen and Ahmad (2012); Bertot, Jaeger, and Grimes, 2010). However, an overabundance of extant literature on public financial management and corruption have projected the introduction of IT or integrated information systems in public financial management. Oye (2013), for instance, and Ameen and Ahmad (2012) argue that incorporating IT into public financial management or automating public financial management processes increases the efficient exchange of knowledge and tracking of transactions.

GIFMIS' Cash Management Automation

Cash management is described as an organization's method of collecting and managing cash for, and using it for short-term or long-term organizational activities that require investing (Kenton, 2017). Cash management involves among other things insolvency avoidance in the organization, account receivable and payable management, working capital management and long term commitment as they fall due (Abubakar, 2013). Cash management encompasses the process of cash collection, monitoring of cash and its application in investment activities. It is one of the key elements for ensuring a county financial stability and solvency (Hansen, 2015). The management of cash attentions at safeguarding satisfactory cash is preserved by the county and any excess is put into the correct use. Business organizations have the duty of ensuring that the entities don't misuse overdrafts as the source of finance.

Kenton (2017) elucidated that “a successful cash management exercise in any institution is essential due to difficulties that come with accessing credits whenever an organization is facing liquidity constrains”. In the public sector, cash management is a task which always has to be viewed in a serious angle otherwise even the worker may go without sallies due to the nature of cash accounting (World Bank, 2011). The accounting model adapted in the public sector, to a certain extent helps in managing the issue to deal with cash management since most of the levies are paid at the end of the period they are consumed. A Successful cash management exercise in any institution is essential due to difficulties that come with accessing credits whenever an organization is facing liquidity constrains (Kenton, 2017). In the public sector,

cash management is a task which always has to be viewed in a serious angle otherwise even the worker may go without salaries due to the nature of cash accounting (World Bank, 2011).

Challenges Associated with the Implementation of GIFMIS

An Integrated Financial Management Information System (IFMIS)'s complete scale and complexity presents considerable challenges and a range of threats to the implementation process that go well beyond the mere technical danger of failure and adverse functionality. Extant literature in diverse countries, such as Tanzania, Ghana, Uganda, Malawi, Kenya and Rwanda, suggested that there are a variety of problems that can affect the successful implementation of an IFMIS (Diamond & Khemani 2006; Rodin-Brown 2008). There are factors that account for slow implementation of GIFMIS in the Ministries Department and Agencies that are needed to be addressed. They are as follows:

In the early 1940s, Kurt Lewin, a psychologist, added the concept of controlling and putting off opposition to plan changes in public institutions. In his work, Kurt stated that character habits have to be tackled for a pleasant organizational change. In the Lewin system, Murphy (2002) suggested that conceivable exchange is opposed by powers in the opposite direction. There are six essential reasons for resisting reforms. They are: when the change is no longer apparent to the administration that causes the change, when the change concerns exceptional interpretations, when those affected feel that powerful powers dissuade them from a change, if those who control have placed pressure on them to make it an alternative for them to have opinions on the

essence of the change, if it is on the private ground (Diamond & Khemini, 2005).

Once again, the shortage of adequate human capital is one of GIFMIS' most critical problems. The public carrier companies need coordinated seminars and training programs to curb this issue, which can often take time but not comprehensively to achieve the required results. There are few qualified tasks in the ministries and departments and after they have gained appropriate skills, they move from the public sector to the private region, which is a government burden. It is indispensable that the government will consider the profits of the employees after the training (Sukhoo, Barnard, Sukhoo, Aarnard, Eloff, Van der Poll & Motah, 2005).

It is very uncertain as to who manages the GIFMIS project, whether it is the Department of Controller and Accountant General or the Ministry of Finance or both. The Department of the Accountant General is responsible for the taxation of the authorities, while the Ministry of Finance manages the business of the budget. The MoF decides how to distribute the assistance while the CAGD makes the regulations and also exercises the functions of handling the GIFMIS. The functions of controlling or executing the GIFMIS can be viewed as mutual. It is found that the authorities have to overcome the possession problems in order to make a certain commitment and accountability (Khemini 2005).

It is important that organizational managers sensitize their employees about the GIFMIS application being issued because it will serve as a source where valuable monetary data are acquired to exploit their institutions properly. GIFMIS can no longer be used as a mechanism for handling public

establishments otherwise it will threaten profitable program implementation. Public organizations should aim to broaden their statistical frameworks in order to be able to take advantage of GIFMIS. It is important that the government include participants in the task execution committee from a number of institutions (Khemini, 2005).

The new legal and regulatory framework has to be section of the body of workers coaching so that they can perform their administrative characteristic very well. There is the need to set up fully- new codes, classifications, business procedures, new practices at the initial stage of the GIFMIS development. Additional futures have to be delivered to the workforce coaching to suite they want of the organisations. A large phase of the coaching need to be on-the-job training, and “Super-users” have to be given a larger element of on- the- job training. The trainers can apply their skills in the decentralised institutions that are implementing the GIFMIS program and it is fundamental that, the trainers are given permanent services (Bretchsneider, 1993).

Conceptual Framework

The conceptual framework for the study was developed from the literature review. The key constructs of the framework and how they are related to public service delivery are espoused in the following paragraphs.

Automated Budgeting and Planning

In this study, automated budgeting and planning is considered as one of the key issues in the public service delivery. Budgeting is defined as the process of developing plans for an organisation production and financial activities. In other words, budgeting is the mechanism that incorporates the

outcomes of planning procedures, accounting, monitoring, and review of cost measures of company operation (Bocharov, 2013). Budgeting is a technology for developing an organization schedule that is organized through all departments in the event of resource constraints, and it is focused on a complex analysis of change estimates of external and internal parameters using global, financial, and performance calculations, as well as job performance (Bocharov, 2013). The literature suggest that economies and areas that adopt budgeting and planning are able to increase their revenue which either directly or indirectly increase the quality of the services that are delivered to individuals and communities at large due to increase in revenue and resources.

Automated Revenue Collection

Relatedly, automated revenue collection is another key variable in the conceptual framework. In organisations and societies or economies that adopt automated means to collect their revenue, they are able to increase their revenues more than countries or organisations that depend on the use of direct means to collect their revenues. Tax data entry, automated processing, calculation, and analysis, as well as automatic development of tax reports and feedbacks which are needed for control and risk management are all possible with tax collection automation (Holniker, 2005). According to Holniker (2005), tax collection automation entails creating high-powered computer programs to perform tax assessments and computations, as well as determining tax dues at high speeds and precision, resulting in a fast response to the receiver (Guido, 2007).

Automation is a catalyst and trigger for revenue modernization, according to Katsuya-Takii (2003). Tax administrations, according to Baurer (2005), can cause problems for businesses by imposing burdensome reporting and record-keeping requirements, conducting excessive inspections and audits, failing to deal with corrupt tax administration employees, and failing to provide transparency in tax administration operations. This form of atmosphere is detrimental to both individuals companies and the economy as a whole. As a result, many members of the corporate community retaliate by taking actions that have a negative impact on the tax base. This usually entails under reporting earnings and attrition, as well as underreporting employee salaries and the use of ghost staff. A large number of companies often refuse to report or file tax returns. This just adds to the pressure of those who want to follow the tax code and discourages them from doing so in the future. As a consequence, a vicious cycle emerges, which helps to maintain the status quo.

Perceived Fraud Reduction Level

Another important variable in the conceptual framework is the perceived fraud reduction level during procurement process. According to Mangal and Kumari (2017) corporate fraud is viewed as a serious threat to businesses and its stakeholders in this era are marked by rising economic crimes and regulatory pitfalls. This issue is even more devastating in emerging economies. Fraud has been identified as one of the most costly crimes in the corporate world. A typical firm's fraud loss is estimated to be 5% of sales, resulting in a global fraud loss of \$6.3 billion (Association of Certified Fraud Examiners [ACFE], 2006). Globally, fraud has increased as a result of advances in information technology and changes in the market climate. It is

ubiquitous and can be found in any form of organization, regardless of its size, design, or location. Therefore this study has hypothesised that reduction in fraud during procurement process has a greater tendency to improve public service deliver.

Cash Management Automation

Lastly, cash management automation is also a key variable in the conceptual framework. Automation of revenue collection system entails investing in new technology, in order to update the revenue system and achieve convergence and knowledge exchange, thus increasing the system's quality and effectiveness (Buckley & Carter, 2004). To improve transparency and resource absorption, it is always advisable that institutions implement an effective and productive revenue collection system in a reporting process that ensures proper oversight of budgeted services and project activities (Amin, 2013). Through using new technology, revenue collection processes and mechanisms can be automated, which helps to improve and simplify tax administration.

In most instances, the many problems facing a lot of institutions can be solved in several ways by simply getting more cash automated management mechanism. As a result, the primary goal of computerized revenue collection is to raise money. To effectively maintain the utility and produce an acceptable return on investment for the organisations, it must increase cash receipts. By streamlining and automating the revenue collection process, leakages caused by late collection, fraud, and under-collection could be minimized. Late payments can be subjected to penalties that are imposed automatically. The system could automatically produce regular reports of cash

receipts and due payments to be received (Kamolo, 2014). According to Sohne (2003), an organisation must significantly expand its fiscal depth without incurring expensive recurrent overheads in order to balance its efficiency with the growth and aspirations.

According to Sohne (2008), automated systems have proven to be capable of adding significant efficiencies to business processes, which can lead to increased revenue. Therefore, automation can lead to increase in public service delivery due to increase in resources mobilisation (See Figure 1).

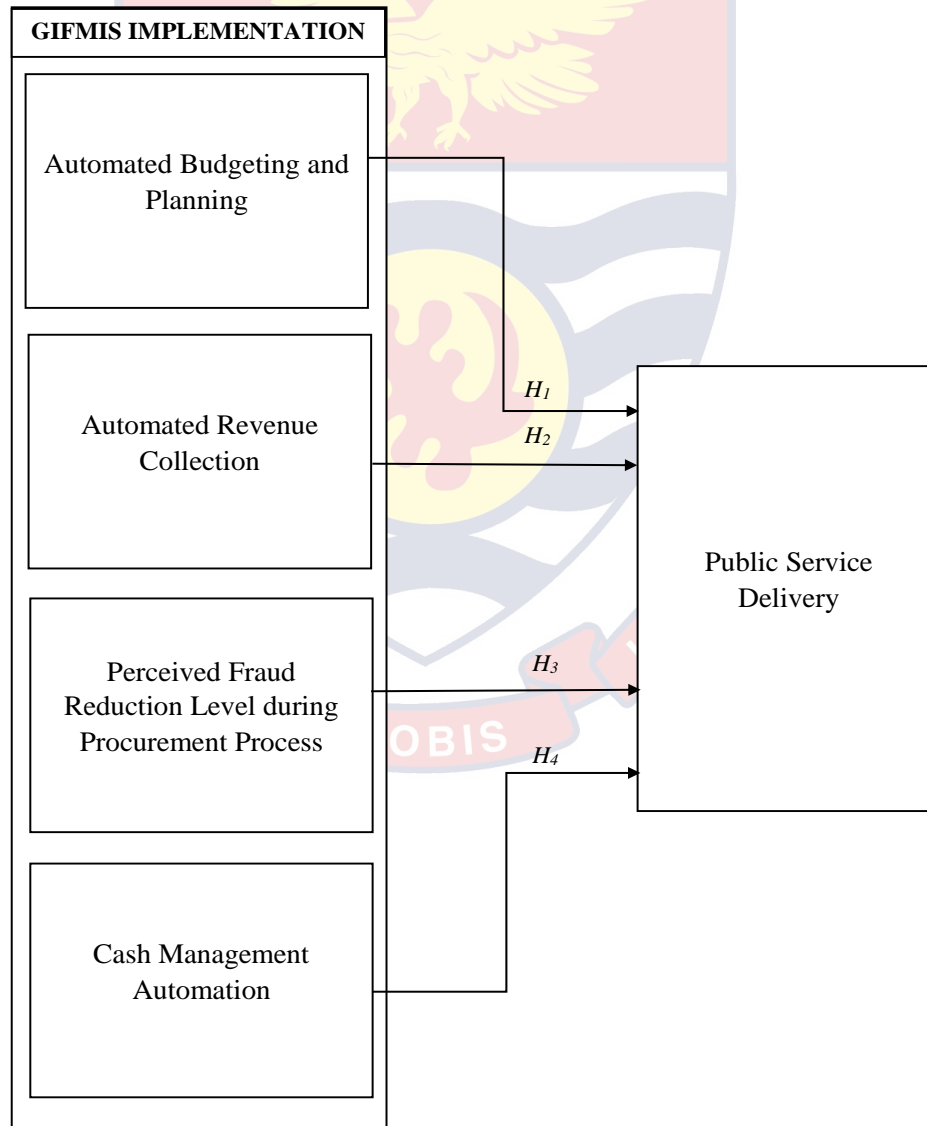


Figure 1: Conceptual framework of the Study.
Source: Field survey, Brown (2020)

Empirical Review

This review focused on automated budgeting and planning public service delivery, automated revenue collection and public service delivery, Fraud reduction and public service delivery and Cash management automation and public service delivery.

Automated Budgeting and Planning Public Service Delivery

Macharia and Dominic (2019) assessed the effectiveness of IFMIS in selected Government Ministries in Kenya. The proposed objectives of the study were: to evaluate the effect of IFMIS on the processing of accounting transactions, to determine the extent to which IFMIS has improved the procurement process, to assess the extent to which IFMIS has improved the production of annual accounting financial documents and to determine if IFMIS has improved the budgetary processes of government ministries. The results revealed that IFMIS is able to consolidate the processing of accounting transactions. It was further found out that IFMIS will improve the budgeting process by providing immediate feedback on expenditure. Also, IFMIS will enable the preparation of financial reports immediately in order for management to make an informed decision at the right time.

Isidore (2012) conducted an assessment analysis of how built-in economic management knowledge gadget improves economic selection making the organizations in Tanzania learn in two cases. The survey assessment consisted of 34 respondents from a population of 204. Findings suggested that economic managers are using IFMIS tools to produce information on financial planning that effectively contributes to their monetary decision making.

Durabi et al., (2017) also established in Malawi that the use of automatic system in finance management at the ministry of trade has led to about 87% increase in the annual losses. The study therefore recommended the need to extend automated systems in financial organisation to all the ministries in Malawi.

Durabi et al. (2017) also established in Kenya that the use of automatic system in finance management at the ministry of trade has led to about 87% increase in the annual losses. The study therefore recommended the need to extend automated systems in financial organisation to all the ministries in Kenya.

Similarly, Simiyu, and Kaplelach, (2013) did a study on Integrated Financial Management Information System Implementation and Public Finance Management in Kilifi County. This study revealed that there were various systems in use especially in county government to manage financial matters. From the respondents who were interviewed, there was a general agreement that positive financial controls with the influence of ICT have been achieved. The findings of the study gave a view that adoption of ICT had indeed enhanced tighter financial control within Meru county government. However there were inherent challenges facing the implementation of ICT which the Government is addressing up to the point of the study like funding.

Demdab et al. (2016) also found in their cross-sectional study using data from the Ministry of finance and Revenue in Madagascar before and after the introduction of automated system in tax mobilisation and revenue from 2015 to 2019 found that, the automated system has helped to reduce 'ghost'

name sin pay rolls. This saved the government n additional 23% in its annual revenue mobilisation.

In addition, Cherono, (2016) aimed at assessing the effects of IFMIS on accounting operations of government Agencies in Kenya. The report used a descriptive research design and focused on 59 Kenyan government agencies. Questionnaires and secondary sources were used to gather data for the study. The study results were presented using Tables, Figures, Means, and Standard Deviation, and SPSS was used to analyze the data. The report concludes that the independent variables of the study (IFMIS system reliability, Staff Competency, and ICT Infrastructure) account for 58 percent of adjustments in the dependent variable (accounting operations of government agencies in Kenya), while 42 percent is explained by other factors. ICT infrastructure has the largest impact, followed by staff competency, and finally IFMIS system reliability. The study recommends that all accountants and other officers in government offices ensure that their staffs are aware of the various IFMIS modules, that management of government agencies in Kenya be aware that the IFMIS system has minimal downtime, that management of government agencies be aware that there is adequate hardware to support IFMIS, and that ICT departments in these government agencies be aware of the various IFMIS modules.

Relatedly, Kamau, Boiywo and Kiprop (2018) did a study on the effect of external Audit Outcomes On Financial Performance Of County Government Of Nakuru, Kenya. The objective of their study was to determine the effect of external audit outcomes on financial performance of county governments with a focus on Nakuru County. The study adopted a descriptive

survey research design where senior and middle level management staffs in the finance department were targeted. 80 employees in the County Government of Nakuru were sampled through the census method. Structured questionnaires were used for data collection and their validity checked using content validity index, while Cronbach alpha coefficient of 0.7 was established as the reliability test. The study used frequencies as descriptive statistics while the Fisher's exact test, correlation analysis and regression analysis were used as the inferential statistics to examine the relationship between external audits outcomes and financial performance of County Government of Nakuru.

Gakurya and Olouch, (2018) did a study on the effect of Accounts Payable Management on Performance of Coastal County Government Ministries. To achieve its goals, it used a descriptive research design. A total of 72 chief officers from Coastal County government ministries who are directly concerned with account payables were targeted for the report. Data was collected using structured questionnaires. Individually, accounts payable credit timelines, accounts payable processes, accounts payable structure, and accounts payable controls all have a positive impact on the financial output of Coastal County governments' ministries, according to the report. As a result, it is recommended that county governments adhere to account payables schedules in order to ensure that vendors are paid on schedule and prevent hefty penalties in court. The study also recommended that County government ministries follow account payables conditions to ensure accountability in the use of financial resources, that account payables maturity dates be established before County governments begin work on developmental projects to ensure

project continuity, and that controls over account payables timelines, such as cash flow and efficiency, be implemented.

Automated Revenue Collection and Public Service Delivery

Atieno (2019) evaluated the effect of IFMIS on performance of Public Finance in county government of Kisumu using structured questionnaires with a sample size of 70 staff by employing correlation and regression analysis. It was revealed that regularity of training programs and adherence with system control process positively correlated with performance of IFMIS on public finance, while adherence to training had the strongest positive effect. It was recommended that full implementation of IFMIS is required particularly for revenue to cash module.

Demdab et al. (2016) also found in their cross-sectional study using data from the Ministry of finance and Revenue in Madagascar before and after the introduction of automated system in tax mobilisation and revenue from 2015 to 2019 found that, the automated system has helped to reduce 'ghost' name sin pay rolls. This saved the government in additional 23% in its annual revenue mobilisation.

In another study, Adedekum and Matumba (2016) in Mozambique showed that the use of Information Technology in the government of has showed a statistically significant increase in the revue collection. Nonetheless, the a main challenge with the automated system in inactive internet connectivity this makes it limited to only urban areas with strong internet.

Gitaru (2017) investigated the influence of revenue system automation on revenue collection in Kenya using regression analysis. The study revealed that the revenue system automation has enabled increased revenue collection.

The study further stated that revenue collection automation processes offer substantial level of significant management. Thus, the revenue received strongly move with a number of completed transactions.

In 2014, Madinga sought to assess the influence of automated system on revenue mobilisation in Zambia. The findings showed that the automated system employed in the Revenue mobilisation section increased their annual budget collection to 110% which exceeded their annual target by 10%. In addition, the authors found that appropriate management of was achieved in subsidiary organisation such as the foreign affairs ministry after they scritly adopted automated systems in their revenue management.

Fraud Reduction and Public Service Delivery

Mugambi (2018) did a study on effect of implementation of information system on financial management in Kenya. This study revealed that there were various systems in use especially in county government to manage financial matters. From the respondents who were interviewed, there was a general agreement that positive financial controls with the influence of ICT have been achieved. The findings of the study gave a view that adoption of ICT had indeed enhanced tighter financial control within Meru county government. However there were inherent challenges facing the implementation of ICT which the Government is addressing to ensure smooth implementation of ICT.

Research conducted by the World Bank (2011) using fifty-one foreign locations found that it is difficult to plan and execute enormous FMIS solutions and that it requires the creation of unique usage options to fulfill a wide range of useful and technological needs relevant to the agenda of public

financial management. The study revealed the usefulness of IFMIS in increasing financial probity for countries.

Kimwele (2011) undertook a study to discover elements affecting the high quality implementation of IFMIS in ministries of government in Kenya in 2005. The study employed 42 Ministries with a sample of 30 respondents utilizing questionnaire as the main research instrument. The study found the IFMIS has not been able to completely give the anticipated benefits of integrated budgetary planning, usage and control of public expenditure. Consequently, the finding by Kimwele challenges the efficacy of IFMIS in achieving monetary honesty in Kenya.

In addition a study by Madingey (2016) on the impact of information system on financial management in Botswana showed that various mechanisms are used by the government of Botswana to achieve their financial task. From the study, it was shown that the majority of them (80%) were of the view that the use of ICT has helped to achieve a considerable gain in the administration of their financial task. This is a reflection of the importance of ICT in this contemporary era.

In addition Bosire in Kenya conducted a study on the main goal of this research was to see if there was a connection between IFMIS and financial integrity in the public sector. The main objectives were to determine the impact of IFMIS on civil servants' perceived financial probity at the Ministry of Foreign Affairs, as well as the impact of IFMIS on public service delivery at the Ministry of Foreign Affairs. The study used a case study template of 40 IFMIS users from the ministry. A questionnaire was used to collect primary

data. The study found that after the implementation of IFMIS in the ministry, employee ethical behaviour has improved.

Cash Management Automation and Public Service Delivery

Mugambi, Gichohi and Kambura (2019) sought to find out whether the implementation of Information and Communication Technology has a major impact on financial management in the Meru County Government. The outcomes recognized that Cash management automation permits county leadership to comprehend the right cost of service conveyed by the county per activity. With the aid of Cash management automation, the finance department is able to settle transactions data immediately. The study concludes that efficient automation of cash management in any organisation is necessary because of complications with gaining access to credits if an entity faces numerous constraints on liquidity.

Also, a study conducted by Nkeobuna and Ugoani (2017) on implementation of Information Technology in the government of Nigeria. The main purpose was to assess the extent of financial integration in the country with a view of improving on cash management. The study found out that even though the government was using information systems on all its cash transactions, there was a challenge to those who pay their money on daily basis. It was also established that there were gaps when it comes to the real service being offered. The service quality was low. The study further revealed not all the units of government was committed in utilizing Information System in carrying out their operations.

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In addition, Njahi, (2017) did a study on the Effect of financial management practices on financial performance of county governments in Kenya. Financial output was the dependent variable, while budgeting, revenue sources, financial resource allocation, and fund management were the independent variables. The study used population per county and county size as control variables. The modified R² of 0.815, indicated that the regression model accounted for 81.5 percent of financial performance of County Governments in Kenya. This effectively means that financial management activities had a substantial impact on financial performance of County Governments in Kenya. Multicollinearity, autocollinearity, and homogeneity were all tested during the diagnostics phase. To measure autocorrelation, Durbin Watson statistics were used, and the number was 2.703, which was between zero and four, indicating that there was no autocollinearity. The Variance Inflation Factor (VIF) was used to monitor for multicollinearity; all variables had VIF values of less than 10, indicating that there was no

multicollinearity. The Levene test was used to check for homogeneity; the test was not important at 0.05, indicating that there was no homogeneity and that the model could be trusted. According to the report, counties should aim to meet their budgeted revenues because a reduction in real revenue from the targeted revenue has an effect on the counties' overall financial results. Counties should also consider the factors that contribute to missed revenue goals, such as diversifying revenue sources. Controlling funds is another important field in which counties can invest time and effort because it has a direct effect on financial results. Counties should also make it a point to expense all of their expected costs on a regular basis.

Harelimana, (2017) also carried out a study to examine the effect of mobile banking on Unguka Bank Ltd's financial results (2012-2016). It is examining previous studies in detail in order to assess the impact of mobile banking on Unguka Bank Ltd's financial results. In order to produce primary data, both quantitative and qualitative research methods such as questionnaires and interviews were used to address the research questions. Furthermore, the study focused on secondary data in order to achieve the study's goals. Both senior and workers with experience with mobile banking were given the questionnaires.

Sakanko and David (2019) also studied the Effect of Electronic Payment Systems on Financial Performance of Microfinance Banks in Niger State. The effect of Electronic-Payment Systems on the financial performance of Microfinance Banks and Institutions in Niger State, Nigeria is investigated using a cross-sectional survey research design and descriptive and ordinary least square regressions. The findings of the investigation reveal the existence

of e-payment systems in the bank, which have a high level of acceptance due to their ease of use and convenience. Furthermore, ATMs, Internet payment options, e-payment cards, and mobile banking platforms have a substantial positive effect on COE-Minna microfinance bank's financial results. In essence, it was proposed that the protection of e-payment platforms be improved and reviewed in order to attract more users, as well as the reduction of fees associated with platform use and the sensitization of potential users.

In addition Bosire in Kenya conducted a study on the connection between IFMIS and financial integrity in the public sector. The main objectives were to determine the impact of IFMIS on civil servants' perceived financial probity at the Ministry of Foreign Affairs, as well as the impact of IFMIS on public service delivery at the Ministry of Foreign Affairs. The study used a case study template of 40 IFMIS users from the ministry. A questionnaire was used to collect primary data. The study found that after the implementation of IFMIS in the ministry, employee ethical behaviour has improved.

Nwakoby, Chukwu, and Oghenetega (2020) did a study on the effect of Cashless Policy on Deposit Money Banks Profitability in Nigeria. As a result, the aim of this research is to determine the impact of Nigeria's cashless policy on deposit money bank profitability from 2009 to 2019. The thesis used secondary data from the Central Bank of Nigeria's Statistical Bulletin, and the ARDL Auto-regressive Distributed lag model was used to analyze the data. Point of Sale (POS) Terminals, Automated Teller Machines, Mobile Banking, and Web Payment are the explanatory variables, whereas Profit before Tax is the dependent variable. The study's findings show that cashless policies have a

negative and negligible effect on deposit money banks' profit before tax in Nigeria during the study period.

Chapter Summary

The chapter discussed the theoretical, empirical and conceptual literature. The review was done in order to give the study a theoretical, conceptual and empirical outlook. Most of the literature has concentrated on the advantages of IFMIS as a financial management and reporting method, and any correlation in terms of financial probity can therefore be assumed. Past studies such Mugambi (2018), Kimwele (2011) on the effects of IFMIS on public finance management have, however, yielded mixed results. Furthermore, based on a sound theoretical context, these studies do not explicitly situate their study. The empirical review concentrated on other areas in the world with little emphasis on Ghana which is distinct. Again, the review drew attention to other organisations without any emphasis on mobile network companies. In view of this, there is the need for ongoing research on the effect of IFMIS as an instrument for public sector financial regulation and reporting.

CHAPTER THREE

RESEARCH METHODS

Introduction

The study sought to ascertain the impact of the GIFMIS on public service delivery in the Cape Coast Metropolitan Assembly. Issues covered in this chapter included the study area, study design, sources of data, study population, sample and sampling procedure. The research instruments, data analysis and ethical issues were also considered.

Research Design

The research design of the study constitutes the overall plan for collecting data in order to answer the research question (Kothari, 2004). It also involves specific data analysis techniques or methods the researcher intends to use. Kerlinger (1986) opined that research design starts from hypotheses through operational implications to the final analysis of data. Research design may serve two main purposes: (i) it details the procedures and strategies needed for the study; and (ii) it gives clarity on the causal relationships that exist between the outcome variable and the right hand-side variables in the model (Kumar, 2005). The researcher followed the descriptive study to determine the effect of the GIFMIS on service delivery in Cape Coast Metropolitan.

Descriptive research design is one of the most important research designs, frequently used to collect data for both quantitative and qualitative, and mixed research designs. Descriptive research design involves evaluating a collection of variables as they actually occur (Gravetter & Forzano, 2011) and aims to provide answers to immediate questions concerning a current state of

affairs (Matthews & Kostelis, 2011). As it minimizes bias and maximizes reliability, descriptive research design is acceptable. The descriptive research use a standard set of questions to get a broad overview of a group's opinions, attitudes, self-reported behaviours, demographic and background information (Barnes & Onley, 2008). The results of introducing the Integrated Financial Management Information System (IFMIS) and its impact on Public Service delivery in the Cape Coast Metropolitan Assembly were the key variables considered in this analysis.

The descriptive survey research design however has some drawbacks. It could delve into private matters, making some respondents unwilling to disclose the right information (Oppong, 2016). To overcome the drawback, a pilot test was conducted to obtain feedback to improve the content of the questions, instructions, clarity, and the layout of the questionnaire. After pilot testing, the questionnaire was then revised to address comments and suggestions of selected respondents. The respondents were also assured that their responses would be treated as confidential and would be used only for academic purpose.

Study Area

Cape Coast is a Metropolitan city and a fishing port. It is the capital of Cape Coast Metropolitan Assembly in southern Ghana. Cape Coast is bounded to the north by Twifu-Heman-Lower-Denkyira, to the south by Gulf of Guinea, to the east by Abura-Asebu-Kwamankese District and to the west by Komenda-Edina-Eberim-Aguafo. Cape Coast has an estimated population of 169,894 people as indicated in the 2010 census (Ghana Statistical Service, 2012). Cape Coast Metropolis is noted for Coastal tourism, fishing and

agriculture. In the northern part of the Metropolitan, however, the landscape is suitable for the cultivation of various crops such as maize, oil palm, cocoa, plantain, cassava because the area is a Mangrove forest.

Sources of Data

The study employed primary data in gathering the information for the data analysis. The primary data enabled the researcher in the collecting data from the Administrative staff of the Metropolitan offices in Cape Coast using a structured questionnaire.

Population

Burns and Grove (2003) opined that a research population consists of all elements that fit a certain criterion for a research project. Thus, the target population of a research project consists of all the members of interest. Population in research connotes the total number of persons within a study area or within a study organization, from which a sample is selected. The population size of this study comprised all administrative staff of the Metropolitan offices in Cape Coast. They included finance officers, procurement officers, budget officers/planners, as well as those in charge of statistics, payroll, stores and general accounts staff at the Metropolitan Assembly. The entire target population comprises of 80 administrative staff. The details about the targeted population is presented in Table 1 below:

Table 1: Targeted Population

Category	Targeted Population	Percentage (%)
Finance	10	13
Procurement	10	13
Accounts	20	25
Revenue	30	38
Budget	10	13
Total	80	100

Source: Fieldwork, Brown (2020)

Sample Size and Sampling Procedure

According to Kreuger and Neuman (2006), sampling is aimed at obtaining smaller units from the main population, to help the researcher conduct analysis. Sample size determination is a complex exercise and it requires both qualitative and quantitative considerations to get it right (Saunders, Lewis & Thornhill, 2007). As asserted by Salant, Dillman and Don (1994) that a precondition to sample selection is to define the target population as intently as possible and that sample selection depends merely on the population size, its uniformity, the sample media, its rate of use, and the degree of accuracy required. Thus, instead of involving the entire target population in the present research, the researcher selects a census of the non-probability samples that exhibit characteristics typical of those influenced by the target population. This is because, where the population small, census is appropriate for selecting the responses (Denscombe, 2007).

Pagano (2006) asserted that sampling is employed because collecting data from the whole population is usually very costly. The selection of a sample size depends on a number of variables, such as the amount of time and resources available to the researcher and the statistical methods planned to be

used by the researcher. This strategy helped save the researcher time by integrating academic and research work to fulfil the timetable of the project. The sample size of the work was one eighty (80) respondents and they were chosen from the different Assembly offices that are using the GIFMIS network.

The sampling technique for this study was by census sampling. This sampling method was adopted with the intention to involve every unit of the population as per Zembat and Turaşl (2016), to utilize information from ten (10) finance staff, ten (10) procurement staff, twenty (20) accounts staff, thirty (30) revenue staff and ten (10) budget staff. Here, there is a procedure of systematically acquiring and recording information about the each and every member of the given population. Census was considered appropriate for the study because under this method, each and every unit of the population is studied. Also, results obtained by census are quite reliable. It is more suitable to use the census method if population is heterogeneous in nature. Again, data collected through census is more accurate because it takes the entire population into account. The respondents were eighty (80) since it was possible to gather information from each participant.

Data Collection Instruments

The primary source of data was employed for the study using questionnaires. According to Agyedu, Agyedu, Donkor and Obeng (2007), a questionnaire is a written instrument that contains a series of questions or statement called items, which attempts to collect information on a particular topic. This method enables as many respondents as possible to be reached within the shortest possible time during a research. The method also facilitates

efficient collection of statistically quantifiable information (Twumasi, 2001). The questionnaire included closed-ended items, in which the questions allowed for certain responses such as multiple choice or the Likert scale to choose from answers provided in the questionnaire. According to Henriksen and Watts (1999) closed ended questionnaire saves time spent in completing, coding and analyzing the questionnaires.

Items on the study's questionnaire totaled thirty-nine (39) (see Appendix B). The research questionnaire was grouped into six (6) sections, I to VI. Section I captured the demographic data of respondents including; gender, age, academic background and years of work experience in public sector. The other sections of the questionnaire concentrated on gathering participants' views on how the implementation of GIFMIS has helped in public service delivery within the Cape Coast Metropolitan Assembly. Sections II to VI were all Likert type questions made up of seven items each. Likert scales are the most reliable and most widely used scale in measuring people's attitudes and opinions (Yates, 2004). Scheuren (2004) asserted that scaling is achieved by ensuring that high-scoring and low-scoring individuals differ in their responses on each of the items selected for inclusion in the index.

Sections II, III, IV and V of the questionnaire gathered information on GIFMIS implementation on public service delivery which included questions on automated budgeting and planning, automated revenue collection and fraud reduction level and cash management automation respectively. Automated budgeting and planning, automated revenue collection and fraud reduction level constructs were measured using Mugambi (2019) elements of

information and communication technology adoption on financial management. Again, cash management construct was measured using indicators offered by Mugambi, Gichohi, and Kambura (2019), and Mugambi (2019). Moreover, Section VI asked questions on public service delivery, and was measured using items provided by Atieno (2019).

The respondents were asked to indicate on a five-point Likert scale, “varying from ‘1’ indicating ‘strongly disagree’ to ‘5’ indicating ‘strongly agree’ from sections II to VI”. The Likert scale was employed since it is one of the most widely used tools in researching popular opinion, easy to use and understand (Leung, 2011). Besides, the reliability of data conducted with the Likert scale is highly valued (Nguyen Thi Bich, & Balami, 2011). Moreover, since Likert Scale questions use a scale, respondents are not forced to choose response options in extremes, this enables them to be neutral if they choose so (Leung, 2011). Table 2 below summarizes the questionnaire items used in the study.

Table 2: Summary of the questionnaire items

Elements	Number of items	Empirical source
Section I: Demographics	4	Mugambi (2019)
Section III: Automated budgeting and planning	7	Mugambi (2019)
Section III: Automated revenue collection	7	Mugambi (2019)
Section IV: Fraud reduction level	7	Mugambi (2019)
Section V: Cash management automation	7	Mugambi, Gichohi, and Kambura (2019), and Mugambi (2019)
Section VI: Public service delivery	7	Atieno (2019)
Total	39	

Source: Fieldwork, Brown (2020)

Pre-Testing

Creswell (2013) asserted that a pilot test of a survey questionnaire is a procedure which enables a researcher to make changes in an instrument based on feedback from a small number of individuals who complete and evaluate the instrument. The pre-tests are required ahead of a main survey for the following reasons (Pallant, 2016). Firstly, they guarantee that questions, instructions and scale items are strong. Again, they further help potential respondents to understand the questions and respond appropriately. Finally, they help researchers to do away with any questions that may offend potential respondents. In this regard, after approval of the questionnaire by the supervisor, the researcher conducted pre-testing on 25 selected administrative staff of CCMA. This sample size was deemed appropriate as it conforms to Gideon, Hawkes, Mond, Saunders, Tchanturia, Serpell (2016) that minimum criteria of 10 for pilot studies by students. The results of the pre-testing indicated the instructions and scale items were clear to the respondents.

Data Collection Procedures

The research utilized only primary data. The data was collected using a questionnaire. The primary data was collected using the survey method. This required the distribution of questionnaires and collection of data from respondents. In order to address and accomplish the intended objectives of this study, well designed close-ended questionnaires were employed. The questionnaires were distributed to the respondents by the researcher and two experienced assistants. The researcher established with the respondents the required time for the collection of the instruments. This led to the fruitful

completion of data collection since the time established was adhered to all respondents.

The researcher employed some research assistants who helped in the collection of data. The researcher and the assistants selected and distributed the questionnaire to the respondents on the first visit and time was given for its collection. Notwithstanding, constant reminders were sent to respondents through email, telephone and sometimes a visit to their offices.

Participants were asked to answer questions on how the introduction of GIFMIS has influence accountability, effectiveness, economy, efficiency and transparency in public service delivery, and indicate how the implementation has succeeded in information dissemination across departments. Finally, participants were asked to indicate how GIFMIS has assisted in budget execution, cash management automation and the realisation of revenue mobilisation targets, and also to determine how GIFMIS has aided in reducing risk within public services. . All questionnaires were taken the same day and the return rate of the questionnaires was 100%.

Reliability

When testing a specific instrument, reliability is a crucial factor to be considered. Bless and Higson-Smith (2000) asserted that reliability is concerned with consistency of the instrument. An instrument is said to have high reliability if it can be trusted to give an accurate and consistent measurement of an unchanging value. According to Yin (2017), the role of reliability is to minimize the errors and biases in a study. In line with the aforementioned, Cronbach's Alpha coefficient, as indicated in Table 3, was

generated on the pre-test data so as to validate the internal consistency of the study elements.

Extant literature has postulated that reliable scales are those with Cronbach’s Alpha coefficient of at least 0.7 (Pallant, 2016), and was considered for this study. With regards to the threshold set for the study, it can be established that all the study’s constructs have good internal consistency above 0.7.

Table 3: Construct Reliability of Variables

Constructs	Number of items	Cronbach’s Alpha Main Study
Automated Budgeting and Planning	7	0.79
Automated Revenue Collection	7	0.83
Fraud Reduction	7	0.88
Cash Management Automation	7	0.86
Public Service Delivery	7	0.82

Source: Fieldwork, Brown (2020)

Validity

Bryman (2016) asserts that validity of an instrument refers to how well an instrument measures the particular concept it supposed to measure. Thus, an instrument must be reliable before it can be valid, implying that an instrument must be consistently reproducible. The researcher reviewed relevant literature to determine how the study’s construct have been measured by earlier researchers as recommended by Bryman (2016). According to Hair, Hult, Ringle and Sarstedt (2016), the Fornell-Larcker criterion is a second and more conservative approach to assessing discriminant validity aside the cross-loadings. Fornell and Larcker (1981) asserted that for discriminant validity to

be adequate, the square roots of each construct’s AVE should be higher than the correlations of that construct with all other constructs. The outcome offered in Table 4 shows that the condition for discriminant validity has been adhered to.

Table 4: Discriminant and Convergent Validity of GIFMIS and Public Service Delivery Constructs

Construct	PSD	ARC	ABP	CMA	FR
PSD	0.5987				
ARC	0.4072	0.5883			
ABP	0.4053	0.4023	0.5245		
CMA	0.4882	0.2140	0.2283	0.6374	
FR	0.5492	0.5264	0.3881	0.4037	0.6457

Source: Fieldwork, Brown (2020)

Measurement of Variables

Based on previous studies in the respective areas, the constructs for the analysis were calculated on a Likert scale of 5 points. This helped the researcher to design questionnaire with questions that have been tried and tested, and have been proven to be effective in generating appropriate data for the study. In line with this, automated budgeting and planning, automated revenue collection and fraud reduction level constructs were measured using Mugambi (2019) elements of information and communication technology adoption on financial management. Again, cash management construct was measured using indicators offered by Mugambi, Gichohi, and Kambura (2019), and Mugambi (2019). Moreover, public service delivery construct was measured using items provided by Atieno (2019).

Data Processing and Analysis

The data that was gathered from the field of study was edited to ensure that the questionnaire had been properly completed and contained accurate information. The responses were coded using Statistical Product for Service Solution version 23. Hancock (1998), posits that field data can be analysed in two aspects – firstly, a descriptive account of the data collected, and secondly, an interpretative analysis, which involves ascribing meaning the responses gathered. For this study, data collected will be coded and classified so as to find out patterns and common issues within the data.

Data collected was analysed using Partial Least Square (PLS) technique. This is because partial least square (PLS) allows simultaneous analysis of interconnection between theoretical constructs without requiring the variables-indicators are usually distributed in a variety of variations. In addition, on smaller samples, regardless of the degree of multi collinear nature between the independent variables, the study of formal equations may also be performed. Given the above, two stage analysis was performed using PLS 3.0 software. The measurement model analysis was used for psychometric features of the questionnaire and hypothesis testing using the determination of the structural model was used in the second phase to determine how significant the indicators of GIFMIS are impacting public service delivery.

Ethical Consideration

Fraenkel and Wallen (2000) maintained that it is essential to keep information taken from respondents in confidence (Respondents were satisfactorily notified to seek their consent before taking their responses. The objectives and purpose of the research were made known to the respondents.

Due to this an introductory letter was taken from the Department and used any time a respondent wanted to be sure of the purpose of the work. The researcher explained to the participants the questions and gave an assurance of anonymity and confidentiality that their names would not be written on any part of the questionnaire. This also motivated respondents to bring out true issues with respect to the study objectives. Most importantly, all sources of literature used for the study are accurately acknowledged in agreement with the creeds of academic copyright, honesty and fair use.

Chapter Summary

The chapter dealt with the discussion of the research methods that was adopted for the study. The following sub-headings were discussed; research design, study area, target population, source of data, sampling techniques, sample size, research instruments, pilot study, data collection procedures, data analysis, as well as reliability and validity of the research instrument. Descriptive survey design was employed as research design. The population of the study consists of all administrative staff of the metropolitan offices in Cape Coast. The census method was later used to sample all the administrative staff of the metropolitan offices in Cape Coast for the study since the method takes into account, the entire population. Questionnaire was used as research instrument to gather information from respondents. The data to be collected from the field was edited to check their completeness and accuracy of filling. Data was processed using the Statistical Package for Social Sciences (SPSS) version 22. The Partial least square method was adopted to estimate the result of the study with the data collected from the respondents through the research instrument.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents and discusses findings of the research. The chapter offers the impact of Ghana Integrated Financial Management Information Systems on Public services delivery in Cape Coast Metropolitan Assembly (CCMA). Descriptive statistics of the variables were presented. The results and discussions are presented with respect to the sequence of the research objectives. The hypothesis to be validated are:

1. H₁: GIFMIS' automated budgeting and planning positively influences public service delivery within the Cape Coast Metropolitan Assembly.
2. H₂: GIFMIS' automated revenue collection positively influences public service delivery within the Cape Coast Metropolitan Assembly.
3. H₃: GIFMIS' perceived fraud reduction level during the procurement process positively influences public service delivery within the Cape Coast Metropolitan Assembly.
4. H₄: GIFMIS' cash management automation positively influences public service delivery within the Cape Coast Metropolitan Assembly.

The first section assesses the descriptive statistics of the various indicators of IFMIS within the Public service of Cape Coast Metropolitan Assembly (CCMA). The main indicators of GIFMIS used in this study include; Automated Budgeting and Planning, Automated Revenue Collection, Fraud Reduction and Cash Management Automation within the Public Service of Cape Coast Metropolitan Assembly.

The last section looks at the interrelationships between Automated Budgeting and Planning, Automated Revenue Collection, Fraud Reduction Cash Management Automation and Public Service Delivery using PLS-Structural Equation Modelling. The PLS technique is based on an “iterative combination of principal components analysis and regression”. Its benefit is that, in the sense of a given model, it simultaneously estimates all path coefficients and individual item loadings.

Descriptive Statistics of Constructs

Descriptive analysis was employed to analyse the GIFMIS indicators after conducting factor analysis using Principal Component Analysis (PCA) with varimax rotation which tries to maximize the variance of the factors to elicit the factors that form the construct financial knowledge (Abdi, 2003). The descriptive statistics include the mean and the standard deviation,.

Descriptive Statistics for Budgeting and Planning Index

The descriptive statistics was computed for all the measurement Statements. The descriptive statistics computed include mean, standard deviation. This form of data evaluation was pertinent and concurs the assertion of Baumgartner and Homburg (1996) that these processes guarantee that the data is error free and appropriate for analysis purposes. Also, the descriptive statistics of variables are done to check for the dispersion of the variables or data. The correlation matrix is not an identity matrix from Table 4. Bartlett's Sphericity Test with $p < 0.05$ shows that the items will form a construct since they have some form of a linear relationship. The sample size was sufficient for factor analysis to be carried out as the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.839 with a total variance explained of 38.235%

which contains the total variance accounted for by all factor (Williams, Onsman & Brown, 2010).

Using a five-point Likert scale to measure GIFMIS' Automated Budgeting and Planning “ranging from 1- Strongly disagree to 5- Strongly agree, each of the five items that loaded well on the Automated Budgeting and Planning construct had a mean greater than 2 and Overall Mean = 3.68 indicated that in general, the Automated Budgeting and Planning is high”

Table 5: Descriptive Statistics for Budgeting and Planning Construct

Statements	Mean	Std. Deviation	Item Loading
ABP1	3.60	0.866	0.535
ABP2	3.54	0.967	0.490
ABP3	3.66	0.899	0.698
ABP4	3.60	0.851	0.620
ABP5	3.81	0.797	0.654
ABP6	3.78	0.914	0.636
ABP7	3.80	0.863	0.668
Overall mean		3.68	
“Total Variance Explained”		38.235%	
“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		0.839	
“Bartlett's Test of Sphericity (sig value)”		0.000	

Source: Fieldwork, Brown (2020)

Descriptive Statistics for Automated Revenue Collection Construct

From Table 6 Bartlett's Test of Sphericity with $p < 0.05$ “shows the correlation matrix is not an identity matrix indicates that the items can form a construct because they have some form of a linear relationship”. The sample size was satisfactory to conduct factor analysis as “the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.858 with a total variance explained of 43.714% which contains the total variance accounted for by all factor”

(Williams, Onsman & Brown, 2010). Using a five-point Likert scale to measure GIFMIS' Automated Revenue Collection “ranging from 1- Strongly disagree to 5- Strongly agree, each of the five items that loaded well on the Automated Revenue Collection construct had a mean greater than 2 and Overall Mean = 3.69 indicated that in general, the Automated Revenue Collection is high”.

Table 6: Descriptive Statistics for Automated Revenue Collection

Construct			
Statements	Mean	Std. Deviation	Item Loading
ARC1	3.65	0.956	0.654
ARC2	3.77	0.981	0.636
ARC3	3.64	0.903	0.777
ARC4	3.69	0.963	0.712
ARC5	3.66	0.927	0.503
ARC6	3.75	0.921	0.612
ARC7	3.70	0.933	0.699
Overall mean		3.69	
“Total Variance Explained”		43.714%	
“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		0.858	
“Bartlett's Test of Sphericity (sig value)”		0.000	

Source: Fieldwork, Brown (2020)

Descriptive Statistics for Perceived Fraud Reduction Level Construct

From Table 7 Bartlett's Test of Sphericity with $p < 0.05$ shows the correlation matrix is not an identity matrix indicates that the items can form a construct because they have some form of a linear relationship. The sample size was satisfactory to conduct factor analysis as “the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.910 with a total variance explained of 58.813% which contains the total variance accounted for by all factor”

(Williams, Onsman & Brown, 2010). Using a five-point Likert scale to measure GIFMIS' Fraud Reduction “ranging from 1- Strongly disagree to 5- Strongly agree, each of the five items that loaded well on the Fraud Reduction construct had a mean greater than 2 and Overall Mean = 3.62 indicated that in general, the Fraud Reduction is high.

Table 7: Descriptive Statistics for Perceived Fraud Reduction Level Construct

Statements	Mean	Std. Deviation	Item Loading
FR1	3.50	0.955	0.803
FR2	3.61	1.108	0.748
FR3	3.65	0.858	0.702
FR4	3.70	1.060	0.743
FR5	3.66	0.913	0.791
FR6	3.64	0.984	0.776
FR7	3.58	1.041	0.799
Overall mean		3.62	
“Total Variance Explained”		58.813%	
“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		0.910	
“Bartlett's Test of Sphericity (sig value)”		0.000	

Source: Fieldwork, Brown (2020)

Descriptive Statistics for cash management automation Level Construct

From Table 8 Bartlett's Test of Sphericity with $p < 0.05$ shows the correlation matrix is not an identity matrix indicates that the items can form a construct because they have some form of a linear relationship. The sample size was satisfactory to conduct factor analysis as “the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.882 with a total variance explained of 52.636% which contains the total variance accounted for by all factor (Williams, Onsman & Brown, 2010). Using a five-point Likert scale to

measure GIFMIS' Cash Management Automation “ranging from 1- Strongly disagree to 5- Strongly agree, each of the five items that loaded well on the Cash Management Automation construct had a mean greater than 2 and Overall Mean = 3.67 indicated that in general, the Cash Management Automation is high”.

Table 8: Descriptive Statistics for cash management automation Level Construct

Statements	Mean	Std. Deviation	Item Loading
CMA1	3.68	0.978	0.842
CMA2	3.51	1.125	0.638
CMA3	3.59	1.064	0.683
CMA4	3.66	0.941	0.718
CMA5	3.75	0.948	0.763
CMA6	3.73	0.954	0.647
CMA7	3.75	0.893	0.765
Overall mean		3.67	
“Total Variance Explained”		52.636%	
“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		0.882	
“Bartlett's Test of Sphericity (sig value)”		.000	

Source: Fieldwork, Brown (2020)

Descriptive Statistics for Public Service Delivery Construct

From Table 9 Bartlett's Test of Sphericity with $p < 0.05$ shows the correlation matrix is not an identity matrix indicates that “the items can form a construct because they have some form of a linear relationship”. The sample size was satisfactory to conduct factor analysis as “the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.851 with a total variance explained of 44.777% which contains the total variance accounted for by all factor” (Williams, Onsmann & Brown, 2010). Using a five-point Likert scale to

measure Public Service Delivery “ranging from 1- Strongly disagree to 5- Strongly agree, each of the five items that loaded well on the Public Service Delivery construct had a mean greater than 2 and Overall Mean = 3.70 indicated that in general, the Public Service Delivery is high”.

Table 9: Descriptive Statistics for Public Service Delivery Construct

Statements	Mean	Std. Deviation	Item Loading
PSD1	3.70	0.960	0.663
PSD2	3.68	0.952	0.767
PSD3	3.60	1.014	0.721
PSD4	3.64	0.997	0.649
PSD5	3.66	0.899	0.689
PSD6	3.75	0.803	0.421
PSD7	3.85	0.858	0.717
Overall mean		3.70	
“Total Variance Explained”		44.777%	
“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		0.851	
“Bartlett's Test of Sphericity (sig value)”		0.000	

Source: Fieldwork, Brown (2020)

Diagnostic Test

The study conducted a diagnostic test to check for multicollinearity. Hair et al (2014), posited that collinearity diagnostic is first examined to ensure that the path coefficients are free from bias and reduce significant levels of collinearity among the predictor constructs. The outcomes of the VIF from Table 11 show that the paths are devoid of multicollinearity with maximum VIF of 2.907, which is below the threshold of 5 as suggested by Hair et al (2014).

Impact of GIFMIS on Public Service Delivery

The main objective of the study sought to examine the impact of GIFMIS on public service delivery. A total of 80 respondents were selected for the study. The respondents included finance officers, procurement officers, budget officers/planners, as well as those in charge of statistics, payroll, stores and general accounts staff at the Metropolitan Assembly. The Partial Least Square (PLS) technique was adopted to analyse the data collected from the respondents. The partial least square (PLS) allowed simultaneous analysis of interconnection between theoretical constructs without requiring the variables-indicators are usually distributed in a variety of variations. Composite variable was created for both GIFMIS indicators and public service delivery. The findings are presented on Tables 10

Table 10: Impact of GIFMIS Indicators on Public Service Delivery

INV	DPV	coeff.	Standard error	t-Stat	P-Value	R2	f 2	VIF
ARC	PSD	0.131	0.1088	1.2369	0.2164	0.679	0.0235	2.390
ABP	PSD	0.200	0.0833	2.3823	0.0174**	0.679	0.0649	1.884
CMA	PSD	0.355	0.0997	3.5544	0.0004***	0.679	0.2280	1.712
FR	PSD.	0.296	0.1149	2.5650	0.0105**	0.679	0.0928	2.907

Source: Fieldwork, Brown (2020)

Note: Independent Variables (INV), Dependent Variable (DPV), Automated Revenue Collection (ARC), Automated Budgeting and Planning (ABP), Cash Management Automation (CMA), Fraud Reduction (FR), Public Service Delivery (PSD). (*), (**), (***) significant at 10%, 5%, 1%., N = 100

Discussion

Impact of GIFMIS on Public Service Delivery

From Table 10, the hypothesis that *GIFMIS' automated budgeting and planning positively influences public service delivery within the Cape Coast Metropolitan Assembly* is sustained by a positive and significant coefficient between the constructs ($\beta = 0.200$, $p\text{-value} < 0.05$). From the result, a unit increase in automated budgeting and planning will improve public service delivery by 0.2% and it is significant at 5% level of significance. This indicates that automated budgeting and planning has led to an increase in the *public service delivery* in situations such as undertaking of only projects budgeted for, budgeting electronic module linking budgeting with availability of funds, integration of budgeting to long term strategic planning and improved on decision making during budget making by provision of immediate reports.

This result is consistent with the findings of Macharia and Dominic (2019) who assessed the effectiveness of IFMIS in selected Government Ministries in Kenya. The Authors found that IFMIS has improved the production of annual accounting financial documents and to determine if IFMIS has improved the budgetary processes of government ministries. It was further found out that IFMIS will improve the budgeting process by providing immediate feedback on expenditure. Also, IFMIS has enabled the preparation of financial reports immediately in order for management to make an informed decision at the right time. Wescott, Bowornwathana and Jones (2009) stated that IFMIS can facilitate recurrent/capital finances integration and enhance accounting and reporting system.

The GIFMIS budget module helps central government to set the ceilings for expenditure. On the other hand, the commitment module enables the monitoring of the non-disbursed fund balances at particular intervals. The system is capable of generating the information necessary accurately and at the right time to help in efficient public service delivery. Chene and Hodes (2009) opined that the motivation behind the introduction of GIFMIS is to strengthen budget preparation and implementation by providing decision-makers with reliable and timely budget management data. The literature suggest that economies and areas that adopt budgeting and planning are able to increase their revenue which either directly or indirectly increase the quality of the services that are delivered to individuals and communities at large due to increase in revenue and resources.

Secondly, the hypothesis that *GIFMIS' automated revenue collection positively influences public service delivery within the Cape Coast Metropolitan Assembly* is supported by a positive but insignificant path coefficient between the two constructs ($\beta = 0.131, p > 0.2164$). The result revealed that a unit increase in automated revenue collection will enhance public service delivery by 0.13% and it is insignificant. This indicates that automated revenue collection has contributed less to an increase in the public service delivery in situations such as reconciliation of revenue collection to budgeted balances, enhanced transparency by elimination of duplicate receipts, improved on timely report generation for decision making and equity in government available resource allocation to projects. Similarly, Kimwele (2011) indicated that the effectiveness of IFMIS in the achievement of monetary integrity in Kenya is questionable.

In the study of Gitaru (2017), he found that that the revenue system automation has enabled increased revenue collection. Applying technological solutions towards the strategic goals for government will be a key step towards transforming government into an entity that can keep abreast of the necessities, requests and anticipations of today's modern world. In organisations and societies or economies that adopt automated means to collect their revenue, they are able to increase their revenues more than countries or organisations that depend on the use of direct means to collect their revenues.

Moreover, the hypothesis that *GIFMIS' perceived fraud reduction level during the procurement process positively influences public service delivery within the Cape Coast Metropolitan Assembly* is supported by a positive but insignificant coefficient between the constructs ($\beta = 0.296, p < 0.05$). The coefficient revealed that a unit rise in GIFMIS' perceived fraud reduction level will lead to 0.296% improvement in public service delivery. This indicates that the introduction of IFMIS has contributed to a larger extent in reducing fraud from public service delivery. Thus, an attempt to reduce fraud from public service within Cape Coast Metropolitan Assembly is proven fruitful. In other words, fraud may not continue to persist within public service delivery. This could also be the fact that measures put in place to minimize the effects of fraud are adequate in achieving public service delivery.

Similarly, Hendricks (2012) asserts that a well-designed IFMIS can supply a quantity of elements that can also help notice immoderate payments, fraud and theft. The result concurs with the findings of Mugambi (2018) study on effect of implementation of information system on financial management in

Kenya. The findings of the study gave a view that adoption of ICT had indeed enhanced tighter financial control within Meru county government. Chene (2009) asserted that the prime advantage of GIFMIS is that, it can be used to notice fraud and disdain corruption. A well-designed GIFMIS has a certain characteristics that help to control excessive payments, theft and fraud (Chene, 2009). Oye (2013), for instance, and Ameen and Ahmad (2012) argue that incorporating IT into public financial management or automating public financial management processes increases the efficient exchange of knowledge and tracking of transactions. Mangal and Kumari (2017) corporate fraud is viewed as a serious threat to businesses and its stakeholders in this era are marked by rising economic crimes and regulatory pitfalls.

Finally, the hypothesis that *GIFMIS' cash management automation positively influences public service delivery within the Cape Coast Metropolitan Assembly* is sustained by a positive and significant coefficient between the two constructs ($\beta = 0.355$, $p\text{-value} < 0.01$). The result revealed that a unit improvement in cash management automation will result in 0.355% improvement in public service delivery. This indicates that cash management automation has led to an increase in the *public service delivery*. For example, it has enabled the transfer of funds efficiently and with certainty in the county, high level of cash accountability, proper structure of funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will, understand the true cost of service delivered by the county per activity and finance department is able to reconcile transactions data in real-time.

This study is consistent with the research of Mugambi, Gichohi and Kambura (2019) who revealed that cash management automation helps county leadership to comprehend the true cost of service delivered by the county per activity. Thus, through cash management automation, the county finance department is able to reconcile transactions data in real-time on Cash management automation (Hawo, 2015). Kenton (2017) elucidated that a successful cash management exercise in any institution is essential due to difficulties that come with accessing credits whenever an organization is facing liquidity constraints". In the public sector, cash management is a task which always has to be viewed in a serious angle otherwise even the worker may go without salaries due to the nature of cash accounting (World Bank, 2011).

To improve transparency and resource absorption, it is always advisable that institutions implement an effective and productive revenue collection system in a reporting process that ensures proper oversight of budgeted services and project activities (Amin, 2013). The system could automatically produce regular reports of cash receipts and due payments to be received (Kamolo, 2014). According to Sohne (2003), an organisation must significantly expand its fiscal depth without incurring expensive recurrent overheads in order to balance its efficiency with the growth and aspirations. Contrarily, Nkeobuna and Ugoani (2017) found out that even though the government was using Information Systems on all its cash transactions, there was a challenge to those who pay their money on daily bases. It was also established that there were gaps when it comes to the real service being offered, by a measure of the service the quality was low.

The Model provided by hypotheses H1 – H4 displays that the exogenous variables (automated revenue collection, automated budgeting and planning, cash management automation and fraud reduction) explained 67.8% of the variation in public service delivery and considered to be moderate by Cohen (1988) as shown in Table 8. The effect size measure presented in Table 10 shows that automated revenue collection ($f^2 = 0.0235$), automated budgeting and planning ($f^2 = 0.0649$), cash management automation ($f^2 = 0.2280$) and fraud reduction ($f^2 = 0.0928$) all have a small effect as per Cohen's f^2 .

Chapter Summary

This chapter seeks to analyse the objectives of the study and relate to a wider literature. The results observed a positive significant effect of automated budgeting and planning, cash management automation and fraud reduction on public service delivery which are supported by empirical research. However, the automated revenue collection contributes to an insignificant effect on public service delivery within Cape Coast Metropolitan Assembly.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study overview, conclusions and recommendations on the research results of the study are given in this chapter. The overarching aim of the analysis was to determine the effect of the Cape Coast Metropolitan Assembly (CCMA) Integrated Financial Management Systems on the delivery of public services.

Summary of Findings

The role of Integrated Financial Management Information System in recent years cannot be overemphasized. Most governments across Africa are implementing in an effort to ensure quality and transparency in public fund management. To follow suit, the Government of Ghana in 2010 promulgated the financial reform known as the Ghana Integrated Financial Management Information System. The GIFMIS was to replace the old manual system performing administrative functions with an Oracle E-business suite, which offers a comprehensive solution to the core problems that were associated with finance operations, governance and performance management process (Kwakyé, 2016). The major question arising is whether the implementation of the GIFMIS has improved public service delivery in Ghana.

Public services delivery are vital to poverty alleviation and key to realizing the Millennium Development Goals (MDGs) both directly and indirectly. Therefore, it is relevant to examine the impact of GIFMIS on public service delivery. Specifically, the study sought to:

1. Examine the impact of GIFMIS' automated budgeting and planning on public service delivery within the Cape Coast Metropolitan Assembly.
2. Examine the impact of GIFMIS' automated revenue collection on public service delivery within the Cape Coast Metropolitan Assembly.
3. Examine the impact of GIFMIS' perceived fraud reduction level during the procurement process on public service delivery within the Cape Coast Metropolitan Assembly.
4. Examine the impact of GIFMIS' cash management automation on public service delivery within the Cape Coast Metropolitan Assembly.

The study employed the quantitative research method was adopted to achieve the objectives of the study. The census approach was employed to include all the 80 administrative staff of the Cape Coast Metropolitan Assembly. Structured questionnaire was used to collect the primary data used for the analyses. The Statistical Package for Social Sciences (SPSS) was employed in the data analysis. The data was analyzed using the Partial least square regression. Tables were used to display the results.

Main finds

The hypotheses tested in this study are as follows:

H1: GIFMIS' automated budgeting and planning positively influences public service delivery within the Cape Coast Metropolitan Assembly.

The hypothesis that GIFMIS' automated budgeting and planning positively influences public service delivery within the Cape Coast Metropolitan Assembly is supported by a significant coefficient between the two constructs. This indicates that automated budgeting and planning has led to an increase in the *public service delivery*.

H2: GIFMIS' automated revenue collection positively influences public service delivery within the Cape Coast Metropolitan Assembly.

The hypothesis that GIFMIS' automated revenue collection positively influences public service delivery within the Cape Coast Metropolitan Assembly is rejected by an insignificant coefficient between the two constructs. This indicates that automated revenue collection though contribute to increasing public service delivery but its effects is insignificant.

H3: GIFMIS' perceived fraud reduction level during the procurement process positively public service delivery within the Cape Coast Metropolitan Assembly.

The hypothesis that GIFMIS' perceived fraud reduction level during the procurement process positively influences public service delivery within the Cape Coast Metropolitan Assembly is supported by a significant coefficient between the two constructs. This indicates that the introduction of IFMIS has contributed to a larger extent in increasing public service delivery.

H4: GIFMIS' cash management automation positively influences public service delivery within the Cape Coast Metropolitan Assembly.

The hypothesis that *GIFMIS'* cash management automation positively influences public service delivery within the Cape Coast Metropolitan Assembly is supported by a significant coefficient between the two constructs. This indicates that cash management automation has led to an increase in the public service delivery.

Conclusions

The conclusion of the study hinges on the research objective of determining the impact of GIFMIS on public service delivery. As the

Government of Ghana has promulgated the Ghana Integrated Financial Management Information System, there is the need to use the result of this study to support future policy formulation in the area of public service delivery. Also, in relation to practice, the government must take a lead role in promoting the use of the GIFMIS in all its agencies to ensure effective service delivery across the country.

The implementation of IFMIS is estimated to enhance the public service delivery in that the organization is mandated to get value for its money in order to get quality products and services at the lowest possible cost. IFMIS helps in efficient allocation of resources in the organization.

Furthermore, it could be said that measures put in place by Cape Coast Metropolitan Assembly towards automated revenue collection are insufficient in ensuring public service delivery. Thus, measures to be taken towards reconciliation of revenue collection to budgeted balances, enhanced transparency by elimination of duplicate receipts, improved on timely report generation for decision making and equity in government available resource allocation to projects are inadequate in achieving a sound public service delivery.

On cash management automation, the study settles that fruitful automation of cash management in the public sector is necessary because of difficulties in obtaining credits while an entity faces cash flow constraints. Within the public sector, cash management is seen as an important factor because without it the firm's going concern assumption would be questionable.

Recommendations

Public firms should ensure that the creation of paperless budgeting is enhanced since it is more verifiable and less bulky. In other words, it is believed that IFMIS has contributed to cost savings taking less time for budget preparation and enabled the undertaking of only projects budgeted for hence reduction in pending bills. Again, budgeting electronic module and linking budgeting with availability of funds will enable controls to be effective.

It is recommended that GIFMIS can show a significant role in fraud and corruption control. This is by creating e-reporting and awareness portals to the public for easy monitoring and reporting of corruption cases and fraud reduction. Relying upon lessons from worldwide experience, Cape Coast Metropolitan Assembly can develop appropriate policies on the implementation of GIFMIS, so as to provide mechanisms of hastening the economy towards sound public service delivery.

The study advises that automation systems should be fully implemented as cash management increases. In order for the Cape Coast Metropolitan Assembly's cash management system to be effective, investment in technology should be made to improve the delivery of public services. The study further recommends that government should put measures in place in order that the cost of adoption to technological equipment are reduced to the barest minimum.

Suggestion for Further Research

Further research is recommended to investigate the automated revenue collection in public service to analyse how far it has been maintained in achieving public service delivery.

In addition, other studies could also be carried out in other areas aside Cape Coast Metropolitan Assembly to assess the impact of GIFMIS implementation on public service delivery. Also, further studies could be carried out on variables such as internal control systems, Organisational accountability systems other than the ones used in this study by conducting extensive empirical studies to analyse different variables used by other authors.



REFERENCES

- Abubakar, J. N., (2015). Changes in health in England, with analysis by English regions and areas of deprivation, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010), 2257-2274.
- Agyedu, G. O., Donkor, F., & Obeng, S. (2007). *Research methods*. UST Press Limited
- Allan, R., & Hashim, R. S. (2016). The use of historical allusion in recent American and Arab fiction. *GEMA Online® Journal of Language Studies*, 11(1).
- Ameen, A., & Ahmad, K. (2012). Towards harnessing financial information systems in reducing corruption: a review of strategies. *Australian Journal of Basic and Applied Sciences*, 6(8), 500-509.
- Andersen, E. S., (2009). *Goal directed project management: effective techniques and strategies*. Kogan Page Publishers.
- Andrews, R., & Entwistle, T. (2013). Four faces of public service efficiency: What, how, when and for whom to produce. *Public Management Review*, 15(2), 246-264.
- Andrews, R., & Entwistle, T. (2014). *Public service efficiency: Reframing the debate*. routledge.
- Asogwa, B. E. (2013). Electronic government as a paradigm shift for efficient public services. *Library Hi Tech*. 31 (1), 141-159.
- Atieno, M. (2019). *Effect of Integrated Financial Management Information System on Performance of Public Finance: A Case of County Government of Kisumu* (Doctoral dissertation, Maseno University).

- Bahl, R. W., & Linn, J. F. (1992). *Urban public finance in developing countries*. The World Bank.
- Barata, K., Cain, P., & Thurston, A. (2011). From accounting to accountability: Managing accounting records as a strategic resource. International Records Management Trust, Report to the World Bank Info DEV Programme.: *International Records Management Trust*, 47-56.
- Barrell, R., & Weale, M. (2010). Fiscal policy, fairness between generations, and national saving. *Oxford Review of Economic Policy*, 26(1), 87-116.
- Barry, A. (2001). *Political machines: Governing a technological society*. A&C Black.
- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13(2), 139-161.
- Becker, W. E., & Watts, M. (1999). How departments of economics evaluate teaching. *American Economic Review*, 89(2), 344-349.
- Berman, P. (1978). The study of macro-and micro-implementation. *Public policy*, 26(2), 157-184.
- Bless, C., Higson-Smith, C., & Kagee, A. (2000). Fundamentals of social research methods. *An African Perspective*, 3.
- Bogason, P. (2000). *Public policy and local governance institutions in postmodern society*. London: Edward Elgar
- Bosire, K. K. (2016). *The impact of integrated financial management information system (IFMIS) on financial probity in the public sector in Kenya* (Doctoral dissertation, University of Nairobi).

- Bradley, R. (2012). *The significance of monuments: on the shaping of human experience in Neolithic and Bronze Age Europe*. Routledge.
- Bradley, R. (2012). *The significance of monuments: on the shaping of human experience in Neolithic and Bronze Age Europe*. Routledge.
- Bretschneider, S. (1993). Technology push or program pull: Interest in new information technologies within public organizations. *Public management: The state of the art*, 275-293.
- Bryman, A. (2016). *Social research methods*. Oxford university press.
- Burns, W., & Grove, S. K. (2003). *Witch Hunts in Europe and America. An Encyclopedia, London*.
- Casals, J.,(2008). Tied to the mast? National fiscal rules in the European Union. *Economic Policy*, 23(54), 298-362.
- Chado, H. M. (2015). The effect of integrated financial management information system on the financial management of public sector in Kenya. *University of Nairobi*, 1–92.
- Chartered Institute of Public Finance and Accountancy. (2010). *Public Financial Management/a Whole System Approach–Volume 1: The Approach and Volume 2: Additional Material*. CIPFA London.
- Chêne, M., & Hodess, R. (2009). The Implementation of Integrated Financial Information Management Systems (IFMIS). *Anti-Corruption Resources Centre, Transparency International*. 20(2), 185 – 190
- Cherono, S. C. (2016). *The effects of integrated financial management information systems, on accounting operations of government agencies in Kenya* (Doctoral dissertation, University Of Nairobi).

- Cunningham, I., & James, P. (Eds.). (2011). *Voluntary organisations and public service delivery* (Vol. 14). Routledge.
- Dabla-Norris, E. (2006). The challenge of fiscal decentralisation in transition countries. *Comparative Economic Studies*, 48(1), 100-131.
- DeLeon, P., & DeLeon, L. (2002). What ever happened to policy implementation? An alternative approach. *Journal of Public Administration Research and Theory*, 12(4), 467-492.
- Demdab, L., Alghadeer, H., & Nusairat, N. (2019). The Effect of Using Mobile Banking Services Applications on Electronic Word of Mouth: The Mediating Role of Perceived Trust. *International Business Research*, 12(9), 62-80.
- Denscombe, M. (2007). *The good research guide for small-scale social projects*. Maidenhead, England: McGraw Hill.
- DFID, U. (2003). *The Analytic Review of Integrated Management of Childhood Illness Strategy*. Geneva: WHO.
- Diamond, J., & Khemani, P. (2005). IMF. On the advice of foreign aid agencies to adopt IFMIS. *Accounting, Organizations and Society*, 12(1), 49–61.
- Dick-Sago, C. (2012). Survey of literature of fiscal decentralization as a sustainable local development tool in Ghana. *Journal of Sustainable Development in Africa*, 14(3), 228–251.
- Dorotinsky, B. (2003). *Technology and Corruption: the Case of FMIS*. The World Bank. Washington, DC.

- Durabi M. I. (2017). *Effect of Integrated Financial Management Information Systems on Financial Performance of Garissa County, Kenya* (Doctoral dissertation, University of Nairobi).
- Ebel, R. D., & Yilmaz, S. (2002a). *Concept of fiscal decentralization and worldwide overview*. World Bank Institute Washington, DC.
- Ebel, R. D., & Yilmaz, S. (2002b). *On the measurement and impact of fiscal decentralization*. The World Bank.
- Ezcurra, R., & Pascual, P. (2008). Fiscal decentralization and regional disparities: evidence from several European Union countries. *Environment and Planning A*, 40(5), 1185-1201.
- Fadare, S. O. (2013). Resource dependency, institutional, and stakeholder organizational theories in France, Nigeria, and India. *International Journal of Management and Sustainability*, 2(12), 231.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Fraenkel, J. R., & Wallen, W. E. (2000). *How to design and evaluate educational research*. MC. Graw – Hill INC.
- Gakurya, C. F., & Olouch, J. (2018). Effect of Accounts Payable Management on Performance of Coastal County Government Ministries. *International Journal of Business Management and Processes (ISSN 2616-3209)*, 4(2), 12-12.
- Ghana. Statistical Service. (2012). *Multiple Indicator Cluster Survey, 2011: Monitoring the Situation of Children, Women, and Men; with an Enhanced Malaria Module and Biomarker*. Ghana Statistical Service.

- Gitaru, K. (2017). *The Effect of Taxpayer Education on Tax Compliance in Kenya. (a case study of SME's in Nairobi Central Business District)*.
Unpublished manuscript
- Goll, D. E. (2003). Thompson VF, Li H, Wei W, Cong J. *The calpain system. Physiol Rev*, 83, 731-801.
- Gravetter, F. J., & Forzano, L. A. B. (2011). *Research Methods for the Behavioral Sciences*. Cengage Learning. *Stamford, CT*, 147-148.
- Gumah, B., & Aziabah, M. A. (2020). "Our Lives Are Affected by Government Agencies": Citizens' Perception Survey as a Measure of Public Service Efficiency in Ghana. *SAGE Open*, 10(2),1-10.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*. 26 (2), 106-121
- Hancock, B. (1998). *An introduction to the research process*. NHS Executive, Trent. Nottingham. Retrieved October 12, 2020, from http://faculty.cbu.ca/pmacintyre/course_pages/MBA603/MBA603_files/IntroQualitativeResearch.pdf
- Hansen, M. O. (2015). *Aerodynamics of wind turbines*. Routledge.
- Harelimana, J. B. (2017). Impact of mobile banking on financial performance of Unguka Microfinance Bank Ltd, Rwanda. *Global Journal of Management and Business Research*.
- Hatch, M. (2013). *The maker movement manifesto: Rules for innovation in the new world of crafters, hackers, and tinkerers*. McGraw Hill Professional.

- Hendricks, M. L., (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress Model. *Professional Psychology: Research and Practice*, 43(5), 460.
- Hendriks, K. H., (2013). Universal correlation between fibril width and quantum efficiency in diketopyrrolopyrrole-based polymer solar cells. *Journal of the American Chemical Society*, 135(50), 18942-18948.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.
- Hillman, A. J., Canella, A. A., & Paetzold, R. L. (2000). The resource dependency role of corporate governance directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, 37(2), 0022–2380.
- Hopelain, J. S. (2004). *Strategic Plan for Trout Management. A plan for 2004 and Beyond*. Department of Fish and Game Report
- Howlett, M., & Ramesh, M. (2002). The policy effects of internationalization: A subsystem adjustment analysis of policy change. *Journal of Comparative Policy Analysis*, 4(1), 31-50.
- Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.
- Husnan, W., & Pudjiastuti, S. A. (2006). *Evaluasi Sistem Pengadaan Obat Dari Dana APBD in France, Nigeria, and India*. *International Journal of Management and Sustainability*, 2(12), 231.

- Isidore, M. (2012). An assessment of how integrated financial management information system enhances financial decision making at Tanesco. *Public finance Journal*, 24(62), 89-105.
- Kamau, J. G., Boiywo, J., & Kiprop, S. (2018). Effect Of External Audit Outcomes On Financial Performance Of County Government Of Nakuru, Kenya. *International Journal of Business Management and Processes (ISSN 2616-3209)*, 4(2), 9-9.
- Kasumba, S. (2009). *Accounting for Local Government Reforms: A Case Study of the Changes in Budgetary Practices in Uganda* (Doctoral dissertation, The University of Essex).
- Kenton, W. (2017). Effect of Automation of Financial Management Systems on Financial Performance of County Government of Trans-Nzoia. *International Journal of Management and Commerce Innovations*, 4(2), 352–359.
- Khemini, A. H. S. A. (2005). Leader's Address to University Professors and Elite Academics. 13 October 2020. Available at: <http://www.ahlulbaytportal.com/en.php/page,25731A35114.html>
- Kimwele, J. M. (2011). *Factors affecting effective implementation of intergrated Financial management information systems (IFMIS) in government ministries in Kenya* (Doctoral dissertation, University of Nairobi).
- Kimwele, J. M. (2011). *Factors affecting effective implementation of intergrated financial management information systems (IFMIS) in government ministries in Kenya* (Doctoral dissertation, University of Nairobi).

- Kinyua, Z. M. (2003). *Genetic structure, virulence characteristics and survival of 'Cercospora' populations causing maize grey leaf spot in Kenya* (Doctoral dissertation, Royal Holloway, University of London).
- Kreuger, L., & Neuman, W. L. (2006). *Social work research methods: qualitative and quantitative approaches: with Research Navigator*. Pearson/Allyn and Bacon.
- Kwakye, A. K. (2016). *Benefits and challenges of integrated financial management information system (Case study GES Obuasi municipal)* [PhD Thesis].
- Langlois, L. A., & Beschel Jr, R. (1998). *Public expenditure analysis and management in the Republic of Kariba: A case study. Developing more effective ways to control and manage government resources*. Washington DC: The Economic Development Institute of the World Bank.
- Lawson, G. (2015). *The global transformation: history, modernity and the making of international relations* (Vol. 135). Cambridge University Press. London, Centre for Financial and Management Studies.
- Lerner, A. P. (1944). *The Economics of Control*, New York: Macmillan.
- Macharia, W. S., & Dominic, N. (2019). The Effectiveness of Integrated Financial Management Information System in Selected Government Ministries in Kenya: A Theoretical Review. *International Journal of Current Aspects*, 3(V), 1-11.
- Malatesta, D., & Smith, C. R. (2014). Lessons from resource dependence theory for contemporary public and nonprofit management. *Public Administration Review*, 74(1), 14-25.

- Matthews, J., & Shulman, A. D. (2005). Competitive advantage in public-sector organizations: explaining the public good/sustainable competitive advantage paradox. *Journal of Business Research*, 58(2), 232-240.
- Matthews, T. D., & Kostelis, K. T. (2011). *Designing and conducting research in health and human performance*. John Wiley & Sons.
- Mear, F., & Flynn, N. (2011). *Public Financial Management: Planning and Performance*. Unpublished manuscript.
- Michale, C. (2001). *A feasibility study on life skills education for street children*. Unpublished M. Phil Dissertation). National Institute of Mental Health and Neuro Sciences, Bangalore, India.
- Mugambi, B. M. (2018). *Effects of information communication technology adoption on financial management in Meru County government* (Doctoral dissertation, KeMU).
- Mugambi, B. M., Gichohi, P., & Kambura, M. S. (2019). Effect Of Cash Management Automation On Financial Management In Meru County Government. *International Journal of Finance*, 4(1), 1-10.
- Muigai, M. N. (2016). *Impact of Government Expenditure on Gross Domestic Product in Kenya* [PhD Thesis]. University of Nairobi.
- Murphy, R. (2002). *How migrant labor is changing rural China*. Cambridge University Press.
- Ngugi, J. K., & Mugo, H. W. (2012). *Internal factors affecting procurement process of supplies in the public sector; a survey of Kenya government ministries*. In 5th International Public Procurement Conference was held on August 17th.

- Nguyen Thi Bich, D., & Balami, J. M. (2011). *Research on response and relations between customers and brand equity: A comparative study of McDonald and Max in Sweden*. Unpublished manuscript.
- Njagi, S. N. (2019). *Challenges Facing Users of the Integrated Financial Management*. (Doctoral dissertation, Kisii University)
- Njahi, J. T. (2017). *Effect of financial management practices on financial performance of county governments in Kenya* (Doctoral dissertation, University of Nairobi).
- Nkeobuna, J., & Ugoani, N. (2017). Effect of Weak Public Financial Management on Public Sector Management and Sustainable Development in Nigeria. *American Journal of Environment and Sustainable Development Effect*, 2(3), 23–32.
- Nkeobuna, O. & Ugoani H. (2017). Implementation of Information Technology in the government of Nigeria. *International Journal of Business Management and Processes (ISSN 2616-3209)*, 4(2), 1-11.
- Nwakoby, C., Chukwu, K. O., & Oghenetega, E. O. (2020). Effect of Cashless Policy on Deposit Money Banks Profitability in Nigeria. *Asian Journal of Economics, Business and Accounting*, 48-63.
- O'Toole, J. (1995). *Leading Change: Overcoming the Ideology of Comfort and the Tyranny of Custom*. *The Jossey-Bass Management Series*. Jossey-Bass, Inc., Publishers, 350 Sansome Street, San Francisco, CA 94104..
- Ohemeng, F. L. K. (2010). The new Charter System in Ghana: the 'holy grail' of public service delivery?. *International Review of Administrative Sciences*, 76(1), 115-136.

- Omokonga, S. (2014). *The Effect of Integrated Financial Management Information System on the Performance of Public Sector Organizations* (Doctoral dissertation, United States International University-Africa).
- Omwamba Masenge, D., & Chewa, J. (2019). *E-Governance and its Interventions to Effective. IJARKE Humanities & Social Sciences Journal*. 2(1), 27-31.
- Oye, E. (Ed.). (2013). *The world problem of salmonellosis* (Vol. 13). Springer Science & Business Media.
- Pagano, M. A., (2006). Research brief on America's cities—City fiscal conditions in 2005. Retrieved September, 20, 2020.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Paudel, N. R. (2009). A critical account of policy implementation theories: status and reconsideration. *Nepalese Journal of Public Policy and Governance*, 25(2), 36-54.
- Peterson, L. L., & Davie, B. S. (2007). *Computer networks: a systems approach*. Elsevier.
- Peterson, S. B. (2011). Why it Worked: Critical Success Factors of a Financial Reform Project in Africa. *HKS Faculty Research Working Paper Series*. <https://dash.harvard.edu/handle/1/4876869>
- Pfeffer, J. (1973). Size, composition, and function of hospital boards of directors: A study of organization-environment linkage. *Administrative Science Quarterly*, 349–364.

- Pfeffer, J., & Gerald, R. (1978). *Salancik. 1978. The external control of organizations: A resource dependence perspective*. New York: Harper & Row.
- Pressman, J. L., & Wildavsky, A. (1984). *Implementation: How great expectations in Washington are dashed in Oakland; Or, why it's amazing that federal programs work at all, this being a saga of the Economic Development Administration as told by two sympathetic observers who seek to build morals on a foundation* (Vol. 708). Univ of California Press.
- Rahman, M. H., Smith, R. F. I., & Agarwal, K. (2009). E-governance to cut corruption in public
- Rodin-Brown, E. (2008). *Integrated Financial Management Information Systems: A practical guide*. Viewed 06 April 2020, from http://pdf.usaid.gov/pdf_docs/PNADK595.pdf
- Rodin-Brown, E. (2008). Integrated financial management information systems: A practical guide. *United States Agency for International Development* http://www.fiscalreform.net/images/ifmis_rodinbrown_080425.pdf Smith, Matthew (2007-EMSG) *Kosovo Economic Management for Stability and Growth*, United States Agency for International Development http://pdf.usaid.gov/pdf_docs/PDAACL494.pdf.
- Rodríguez-Pose, A., & Bwire, A. (2004). The economic (in) efficiency of devolution. *Environment and Planning A*, 36(11), 1907-1928.
- Rose-Ackerman, S. (2004). Governance and corruption. *Global crises, global solutions*, 301, 310-11.

- Rozner, S. (2008). Best practices in fiscal reform and economic governance. *Introducing integrated financial management information systems*. Retrieved April, 6, 2013.
- Sakanko, M. A., & David, J. (2019). The Effect of Electronic Payment Systems on Financial Performance of Microfinance Banks in Niger State. *Esensi: Jurnal Bisnis dan Manajemen*, 9(2), 143-154.
- Salant, P., Dillman, I., & Don, A. (1994). *How to conduct your own survey*. New York: Wiley.
- Saunders, M., Lewis, P. H. I. L. I. P., & Thornhill, A. D. R. I. A. N. (2007). *Research methods. Business Students 4th edition* Pearson Education Limited, England.
- Scheuren, F. (2004, June). What is a Survey?. Alexandria: American Statistical Association. service delivery: A case study of Fiji. *Intl Journal of Public Administration*, 32(5), 415-437.
- Simiyu, S. N., & Kaplelach, M. S. (2013). Integrated Financial Management Information System Implementation and Public Finance Management in Kilifi County, Kenya.
- Simson, R., Sharma, N., & Aziz, I. (2011). *A guide to public financial management literature*. London, Overseas Development Institute.
- Sohne, G. (2008). Community revenue collection system. *The Journal of Community Informatics*, 4(3).
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS quarterly*, 147-169.

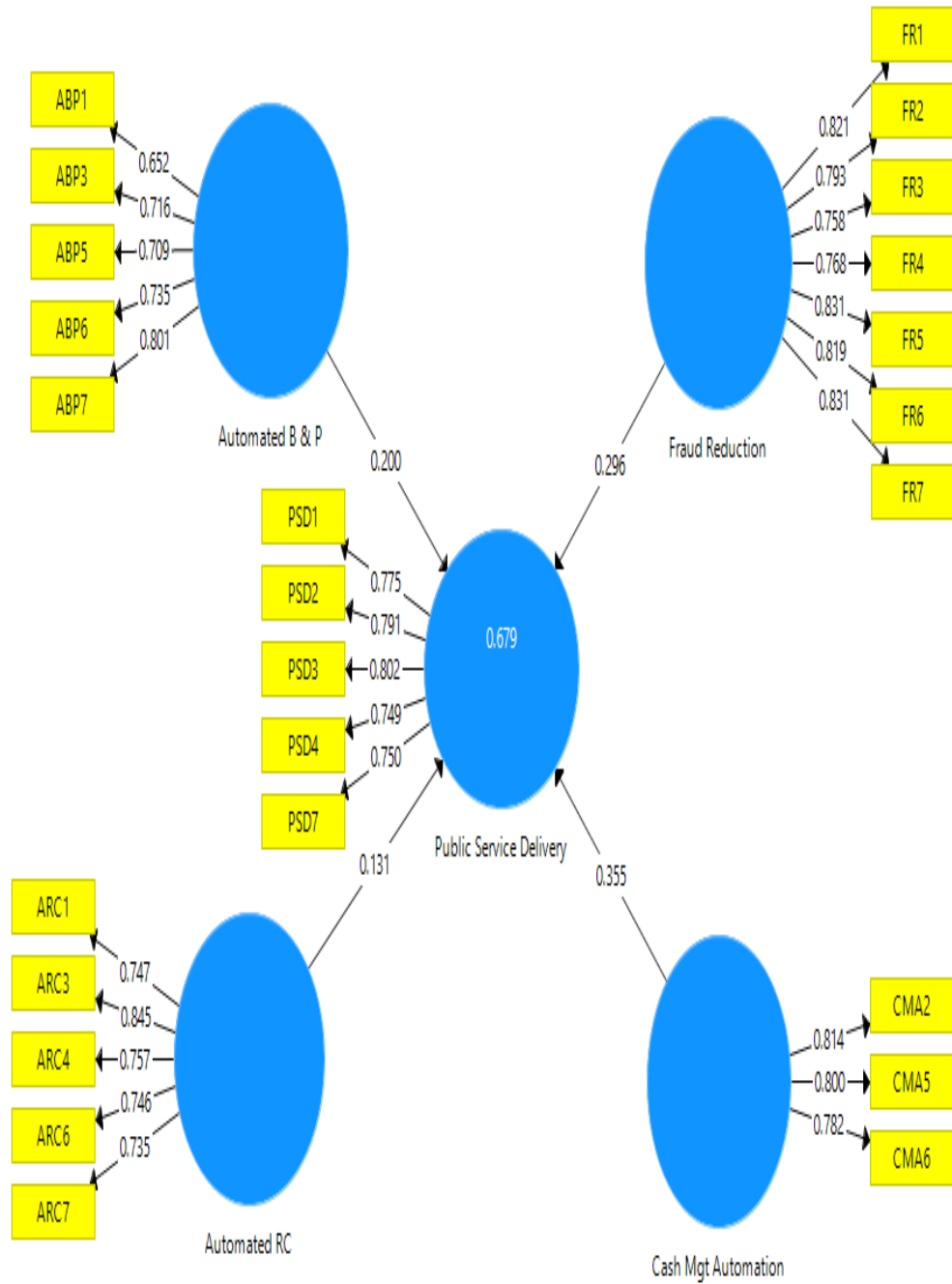
- Toatu, T. (2004). *Corruption, public investment and economic growth: evidence from Pacific Island countries. PIAS-DG Governance Program Working Paper*, University of South Pacific.
- Tsamenyi, M., Cullen, J., & González, J. M. G. (2006). Changes in accounting and financial information system in a Spanish electricity company: A new institutional theory analysis. *Management Accounting Research*, 17(4), 409-432.
- USAID, Report (2008). *Indicators for Assessing Infant & Young Child feeding Practices*. WHO.
- Van Audenhove, L. (2000). Information and communication technology policy in Africa: A critical analysis of rhetoric and practice. *Information Technology in Context: Studies from the Perspective of Developing Countries*, 277–290.
- Vani, S., & Dorotinsky, W. (2008). *PFM Global Landscape: What Can We Say about PFM Systems and Trends around the World*. Washington: World Bank and IMF.
- Wescott, C., BowornYathana, B., & Jones, L. R. (Eds.). (2009). *The many faces of public management reform in the Asia-Pacific region*. Emerald Group Publishing.
- Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian journal of paramedicine*, 8(3).
- Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24(10), 991-995.

- World Bank. (2006). *Public Finance Management Performance Report and Performance Indicators*. World Bank.
- World Bank. (2011). *Public Finance Management Performance Report and Performance Indicators*. World Bank.
- World Health Organization. (2004). *Global tuberculosis control: surveillance, planning, financing: WHO report 2008* (Vol. 393). World Health Organization.
- World Health Organization. (2008). *Global tuberculosis control: surveillance, planning, financing: WHO report 2008* (Vol. 393). World Health Organization.
- Yates, L. (2004). *What does good education research look like?: Situating a field and its practices*. McGraw-Hill Education (UK).
- Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.
- Younis, T., & Davidson, I. (1990). The study of implementation. *Implementation in public policy*, 3-14.
- Yusif, G. (2019). *The Impact of the Ghana Integrated Financial Management Information System (GIFMIS) on Accountability and Transparency; A Case Study of Ministry of Lands and Natural Resources*. [PhD Thesis]. University of Ghana.
- Zembat, K. Q & Turaşl B. M. (2016). *Effects of information communication technology adoption on financial management in Meru County government* (Doctoral dissertation, KeMU).

APPENDICES

APPENDIX A

PLS output of GIFMIS implementation on Public Service Delivery



APPENDIX B
RESEARCH QUESTIONNAIRE

To All Respondents

Dear Sir/Madam,

I am George Ebo Brown, an MPhil Public Policy and Management student at University of Cape Coast. As a requirement of this degree, I am undertaking a research on effect of Integrated Financial Management Information System on public service delivery within the Cape Coast Metropolitan Assembly (CCMA). A questionnaire has been attached seeking information related to the research topic. The research is purely for academic purposes and all information provided will be treated with utmost confidentiality and will be used for academic purposes only.

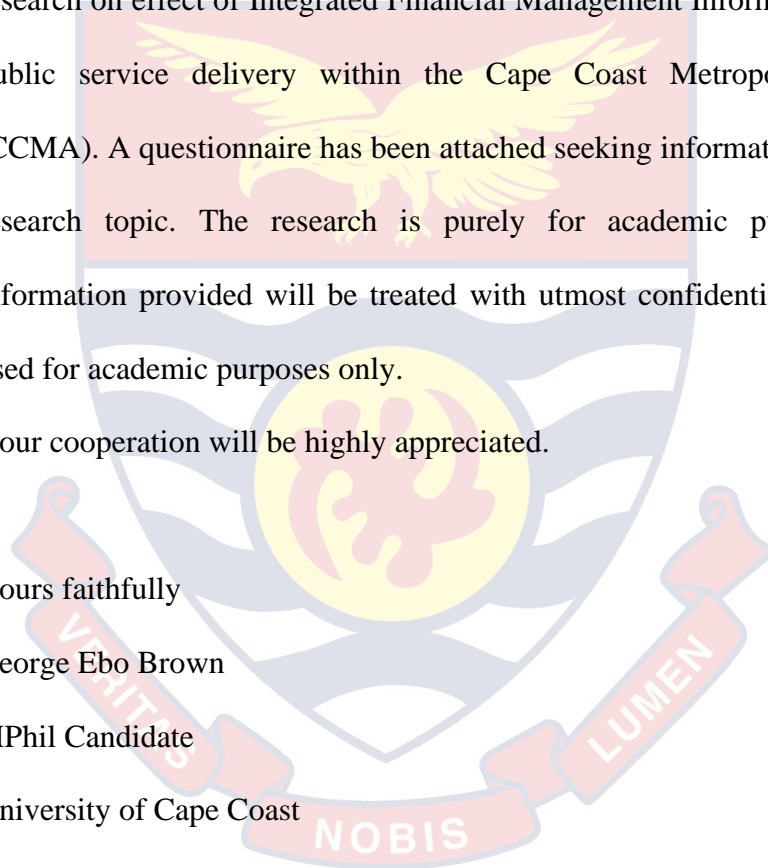
Your cooperation will be highly appreciated.

Yours faithfully

George Ebo Brown

MPhil Candidate

University of Cape Coast



SECTION I – DEMOGRAPHICS

General Information – (Please fill as indicated)

1. What is your gender?

Male []

Female []

2. Age (Years)

Below 30 years []

30 – 45 years []

45 – Above []

3. What is your highest level of education?

- Secondary []

- Diploma/HND/College []

- Bachelor's Degree []

- Masters/Postgraduate Degree []

- PhD []

4. Years worked at the CCMA (Cape Coast Metropolitan Assembly)

Less than 1 year

1 - 3 years []

3 - 5 years []

5 - 8 years []

8 years and over []

IMPACT OF IFMIS ON SERVICE DELIVERY

The following sections of the survey are designed to help us understand the impact of IFMIS implementation on service delivery within the Cape Coast Metropolitan Area. The questions are designed in consideration of the various automated features of the GIFMIS.

SECTION II

Question Theme: *Effects of automated budgeting and planning on public service delivery*

5. In your opinion do you agree that adoption IFMIS has affected service delivery within the Cape Coast Metropolitan Assembly?

Answer Scale: On a scale of 1 to 5, please indicate your opinion (level of agreement) on the Statement below – Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) Strongly Disagree (1)

No	Statement	1	2	3	4	5
i.	Creation of paperless budgeting which is more verifiable and less bulky					
ii.	IFMIS has contributed to cost savings taking less time for budget preparation					
iii.	Enabled undertaking of only projects budgeted for hence reduction in pending bills					
iv.	IFMIS has enhancing transparency on funds allocation and entire budget making process					
v.	Budgeting electronic module linking budgeting with availability of funds has enabled controls					
vi.	Enabled integration of budgeting to long term strategic planning					
vii.	IFMIS has improved on decision making during budget making by provision of immediate reports					

SECTION III

Question Theme: *Influence of automated revenue collection public sector service delivery*

6. To what extent do you agree with the following factors that revenue collection automation has impacted public service delivery within Cape Coast Metropolitan Assembly?

On a scale of 1 to 5, please indicate your opinion (level of agreement) on the Statement below – Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) Strongly Disagree (1)

No	Statement	1	2	3	4	5
i.	IFMIS has enabled auto reconciliation of revenue collection to budgeted balances					
ii.	Automation has enabled cost reduction by eliminating use of tickets and engaging less staff					
iii.	Automation has enhanced transparency by elimination of duplicate receipts					
iv.	Automation has improved on timely report generation for decision making					
v.	There is equity and transparency in government available resource allocation to projects					
vi.	Elimination of use of revenue directly at source without going to the revenue fund					
vii.	Online monitoring of revenue collection					

SECTION IV

Question Theme: *IFMIS Implementation has reduced the level of fraud during procurement process*

7. To what extent do you agree with the following statements that **procurement process automation has impacted public service delivery**, in reducing level of fraud and corruption within Cape Coast Metropolitan Assembly?

Answer Scale: On a scale of 1 to 5, please indicate your opinion (level of agreement) on the Statement below – Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) Strongly Disagree (1)

No	Statement	1	2	3	4	5
i.	Procurement automation has enabled online tender advertisement					
ii.	The system enable suppliers to check and apply for advertised tenders online					
iii.	Automation has cut down on time used for tender evaluation and awarding					
iv.	Automation has enhanced transparency of tender process by elimination of tampering with the exercise manually (Human interface)					
v.	Automation has enabled linking of procurement and budgeted amounts					
vi.	The system has enabled the management to generate quick and up to date report regarding procurement process					
vii.	IFMIS implementation has reduced the level of fraud during procurement process					

SECTION V

Question Theme: The influence of cash management automation on service delivery

8. To what extent do you agree with the following statements that cash management automation has impacted public service delivery within Cape Coast Metropolitan Assembly?

Answer Scale: On a scale of 1 to 5, please indicate your opinion (level of agreement) on the Statement below – Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) Strongly Disagree (1)

No	Statement	1	2	3	4	5
i.	Cash management automation enables transfer funds efficiently and with certainty in the county					
ii.	Cash management automation seek to improve execution by providing timely and accurate data for cash management and decision making					
iii.	Automation has enabled high level of cash accountability					
iv.	Cash management automation enables organization to structure funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will.					
v.	Cash management automation enables county leadership to understand the true cost of service delivered by the county per activity					
vi.	Cash management automation seek to enhance confidence and credibility of the cash through greater transparency of information					
vii.	Through Cash management automation, the county finance department is able to reconcile transactions data in real-time					

SECTION VI

Question Theme: The impact of GIFMIS implementation on public service delivery

9. To what extent do you agree with the following statements that GIFMIS implementation has impacted public service delivery within Cape Coast Metropolitan Assembly?

Answer Scale: On a scale of 1 to 5, please indicate your opinion (level of agreement) on the Statement below – Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) Strongly Disagree (1)

No	Statement	1	2	3	4	5
i.	Financial reporting has been influenced by IFMIS through automated information sharing					
ii.	GIFMIS system has supported and facilitated the mobilization of funds in the government					
iii.	GIFMIS has made financial planning easier or improved					
iv.	The automation features of GIFMIS has eased the decision-making process across all departments					
v.	There is accountability on resource utilization: GIFMIS has improved accountability and ensured better appropriation of state resources					
vi.	The system has improved the transparency on financial matters					
vii.	The system able to auto reconcile financial records					

THE END

THANK YOU FOR PARTICIPATING