

**UNIVERSITY OF GHANA**

**PUBLIC SECTOR FINANCIAL MANAGEMENT REFORMS IN  
GHANA: THE CASE OF GHANA INTEGRATED FINANCIAL  
MANAGEMENT INFORMATION SYSTEM (GIFMIS)**

The watermark is a large, light-colored crest of the University of Ghana. It features a shield with three golden trees at the top, a central golden cross with a scroll-like design, and two golden scrolls at the base. The text is centered over the shield.

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**A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING,  
UNIVERSITY OF GHANA BUSINESS SCHOOL, UNIVERSITY OF GHANA,  
LEGON, IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE AWARD OF  
MASTER OF PHILOSOPHY (MPHIL) IN BUSINESS ADMINISTRATION  
(ACCOUNTING OPTION) DEGREE**

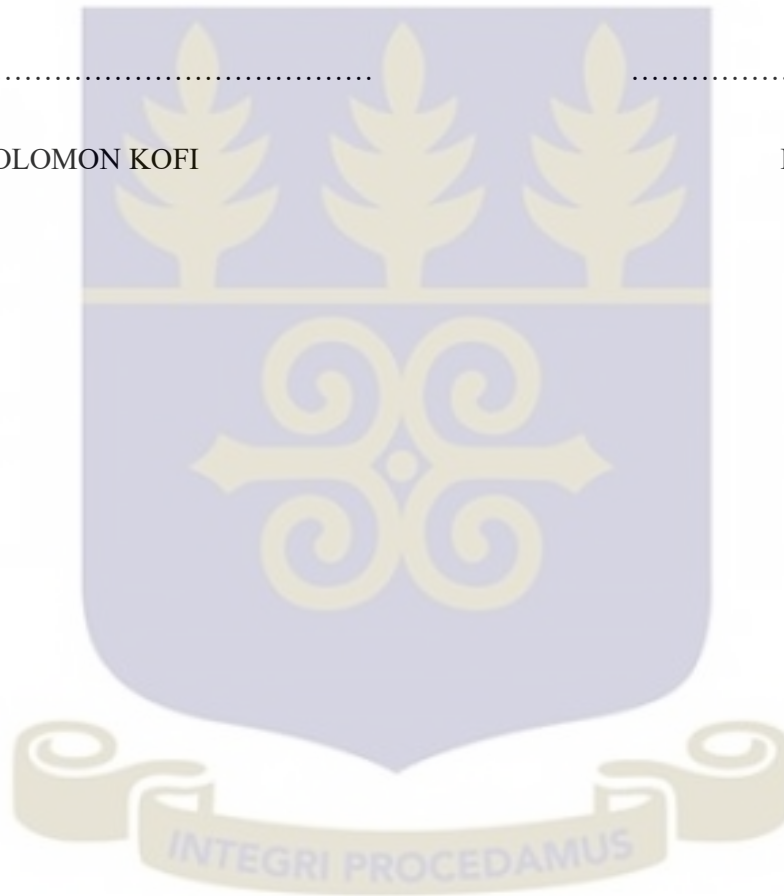
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## DECLARATION

I hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been duly acknowledged. I am exclusively responsible for any shortcomings

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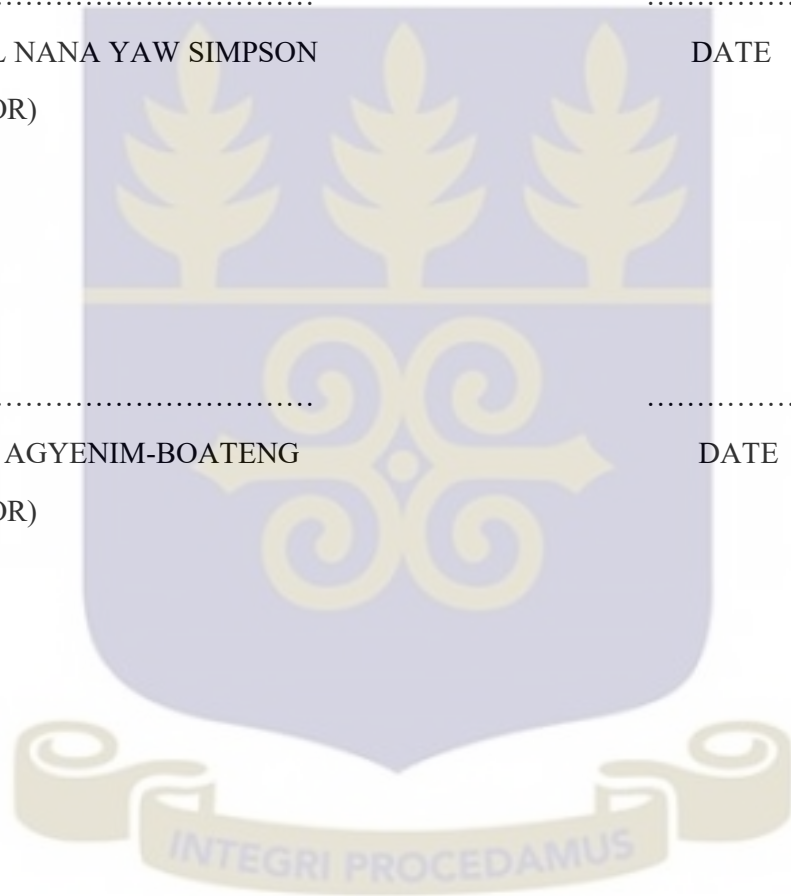


## CERTIFICATION

We hereby certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

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## DEDICATION

I dedicate this work to my ever-supportive mother, Madam Dora Akua Pokua



## ACKNOWLEDGMENT

I am most grateful to the Almighty God for how far He has brought me. Indeed, He is my strength, my provider and my source of wisdom. His grace is sufficient and immeasurable.

My sincerest gratitude goes to my supervisors Dr Samuel Nana Yaw Simpson and Dr Cletus Agyenim-Boateng for their invaluable contributions and directions. I will forever be indebted to them for their enthusiasm and dedication.

I am also grateful to all the lecturers of the University of Ghana Business School, especially accounting department for their invaluable contributions and constructive criticisms during seminars. Your contributions and criticisms helped shape my work.

I also appreciate the contributions of my colleagues – Ms Mawuena Akosua Kukah, Mr Emmanuel Tenakwah Jnr and Alhassan Musah for their suggestions.

I want to express my profound gratitude to my respondents, especially Mrs Juliet Opoku-Manu (GIFMIS Secretariat), Mr Eric AKuetteh (GIFMIS Secretariat), Mr Siraj Tanko (GIFMIS Secretariat) and Mr Samuel Danquah Arkhurst (MOFEP-Budget Division) for their unconditional assistance. Mrs Juliet Opoku-Manu, I am ever indebted to you for your support.

I cannot forget the support of my family for their support especially my mother Madam Dora Akua Pokua; my aunty, Mrs Cynthia Phyllis Ampomah Adu; my brother, Boamah Eric Kwame; My dad, Mr Seth Yeboah and my cousin, Sharon Gyanewa Adu.

Special thanks goes to Mr Samuel Brew for your fatherly love. I am most appreciative of your support, both financially and non-financial.

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## LIST OF ABBREVIATIONS

BPEMS	- Budget and Public Expenditure Management S
CoA	- Chart of Accounts
ERP	- Economic Recovery Programme
EU	- European Union
GIFMIS	- Ghana Integrated Financial Management Information System
IFMIS	- Integrated Financial Management Information System
IS	- Information System
IT	- Information Technology
LDCs	- Less Developed Countries
MDAs	- Ministries, Departments and Agencies
MMDAs	- Metropolitan, Municipal and District Assemblies
MTEF	- Medium Term Expenditure Framework
NITA	- National Information Technology Agency
NPM	- New Public Management
PUFMARP	- Public Financial Management Reform Programme
SAP	- Structural Adjustment Programme
TPCs	- Transaction Processing Centres
TTT	- Train the Trainers
UN	- United Nations

## ABSTRACT

Governments, especially in developing countries, have been preoccupied with attempts to ensure efficiency and accountability in the use of public funds. These attempts have culminated in the development and introduction of a plethora of public financial management reform programmes over the past three decades under different labels. The integrated financial management information system (IFMIS) is one of the recent public financial management reform programmes being introduced by governments across sub Saharan Africa. Though evidence on the success and failures of the implementation of these reform programmes are mixed, many of these reform programmes introduced have failed to produce their intended results. Extant literature have identified several factors that influence the implementation of public sector reform programmes in general. This study examines the implementation of IFMIS in Ghana. The study also explores the accountability frameworks in the implementation of IFMIS in Ghana. To achieve the objectives of the study, the study adopted a qualitative case study approach. Key stakeholders in different political regimes who were and are directly involved in the implementation of the Ghana Integrated Financial Management Information System (GIFMIS) reform programme were interviewed. Findings of the study suggest that, unlike previous public financial management reform programmes, the GIFMIS was internally generated. Moreover, the implementation strategies of the GIFMIS programme have been informed by experiences from the implementation previous programmes, especially the Budget and Public Expenditure Management System (BPEMS). The results of the study also suggest that, largely, stability in the political governance system promotes sustained political support and commitment, and hence facilitate the effective implementation of public financial management reform programmes. It is recommended that the legislature demonstrate the same level of commitment shown by the executive arm of government to provide adequate legislation to support the GIFMIS and future public financial management reform programmes.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Introduction

The study examines the implementation of GIFMIS in Ghana's public financial management system. This chapter thus, introduces the study. This chapter is organised along the following thematic headings – background of study, the problem statement, objectives of the study, significance of the study as well as organisation of the study.

#### 1.2 Background of Study

The importance of the public sector cannot be overemphasised, as it is the fulcrum that promotes socio-economic development. It exists to provide services to enhance the well-being of the populace and create a conducive environment that promotes private sector activities. Banerjee and Chau (2004), however note that, only a well-functioning and efficient public sector is capable of stimulating growth, development and accountability in public management. This assertion is confirmed by the myriad of problems identified in most economies, particularly, developing economies due to poor management of the public sector over the years (Uddin, 2003; Rahaman & Lawrence, 2001).

As a panacea, there have been a plethora of reforms over the past three decades under various labels (New Public Management, Public Sector Reforms, Public Sector Management) targeting different segments of the public sector. These reforms have become necessary because of the quest of various governments to ensure or enhance the efficiency of public sector institutions and/or public service delivery. Curristine, Lont and Jourmard (2007) note that, the public sector of most developing countries have long been subjected to criticisms for its inefficiencies, corruption and lack of accountability. This thus puts pressure on the various

governments to introduce programs or policies aimed at enhancing effectiveness and efficiency in the public sector.

Majority of the public sector reforms in the developing countries have emerged through projects supported by supranational institutions such as the International Monetary Fund (IMF), World Bank, the European Union (EU). This is illustrated by the significant growths in the number of World Bank projects with public sector reform contents. For instance, the World Bank and the IMF were instrumental in the implementation of the structural adjustment programmes in most developing countries in the mid-1970 to the mid-1980s. According to Andrews (2013), the number of World Bank sponsored projects with public sector reform contents grew from about 469 in the 1980s to about 3,235 in the early 2000s. Moloney (2009) adds that this trend is evident in the portfolios of other development agencies such as the Asian and African Development Banks.

Public sector reforms in sub Saharan Africa have evolved over time since its inception (Therkildsen, 2000; Kiragu, 2002; Chitto, 2009). For instance, Kiragu (2002) notes that, there has been three strands or waves of public sector reforms in sub-Saharan Africa, since 1970s, focusing on diverse aspects of public sector management. The first wave of public sector reforms in sub Saharan Africa, which spanned the periods between the mid-1980s to the mid-1990s, focused on restructuring of public service institutions, which is otherwise known as the structural adjustment programme (SAP). The second strand or wave of public sector reforms in developing countries focused on building the capacities of public sector personnel. The third wave of public sector reforms in Sub Saharan Africa, on the other hand, focused on improving public service delivery.

These notwithstanding, studies on public sector management reforms have shown that the numerous public sector reforms have been necessitated by a response to political, social and

economic pressures on national governments (Therkildsen, 2000). Other studies on public sector management have concluded that, these reforms have been inspired by the new public management (NPM) paradigm (Lapsley & Pallot, 2000; Kiragu, 2002; Chitto, Ramphul, & Nowbutsing, 2009; Karanja & Nganga, 2014).

The NPM is an administrative doctrine that dominated the public administration reform agenda of most OECD countries from the late 1970s. The NPM captures most of the structural, organisational, managerial changes taking place in the public services among these countries. Pollitt (2002) sees the NPM as a vision, an ideology and a set of a particular management approaches and techniques borrowed from the private sector. It is thus an ideological system based on ideas borrowed from the private sector to be applicable in the public sector. According to Pollitt and Summa (1997), and Hood (1995), the NPM shifts the emphasis from the traditional public administration to public management. The NPM seeks to eliminate the line between the public sector and private sector so that the same good management practices will be evident or present in both sectors. NPM thus proposes public administration theories and practices whose ultimate objectives are to make the public administrative system more efficient, streamlined, and consistent (Hood & Lodge, 2006).

At the heart of the numerous reforms in the public sector are financial management reforms. A plethora of financial management reform programs (for example, the medium term expenditure framework, integrated financial management information system) have been introduced in the public sector of most developing countries. These reforms were intended to shape or enhance efficiency and accountability of public funds or resources. Public sector financial management encompasses the activities of budget execution, control, accounting, reporting, monitoring and evaluation (Brignall & Modell, 2000). It involves the resource allocation and income distribution activities of the government. Public financial management concerns the revenue mobilization, spending and debt management activities of the government (Pretorius &

Pretorius, 2008). Financial management also involves the planning, controlling, implementation and monitoring of the fiscal policies and activities including the accounting and audit of revenue, expenditure, assets, and liabilities (Barata & Cain, 2011). Effective financial management is however necessary for accountability and hence, a prerequisite for good governance (Peterson, 2007).

Reforms in Ghana's public sector dates back to the days of the Economic Recovery Program (ERP) in 1983. The ERPs were introduced or launched under the guidance of the World Bank and the International Monetary Fund (IMF). To fulfil the social, political and economic contracts between the government and the populace, accountability is a fundamental requirement. The accountability of governments to the public has a large information component. The public needs access to information in order to assess the performance of government.

Along the ERP came several reforms aimed at ensuring effective and efficient financial management in the public sector. The government of Ghana under the Public Financial Management Reform Program (PUFMARP), launched in 1995, introduced a number of reforms in the management of public resources. The PUFMARP is a comprehensive medium term strategic management framework aimed at addressing the issues identified in the Public Expenditure Review (PER) in 1993 and 1994 (Anipa, Kaluma & Muggeridge, 2003). The issues identified included weak budgetary framework; lack of proper accounting; ineffective audit; lack of reliable, accurate and timely information for management decision making; ineffective public expenditure monitoring and control; and lack of budget ownership. For instance, the government of Ghana introduced the medium term expenditure framework (MTEF) in 1999 to address the weaknesses in the country's budgeting framework. The government also introduced the Budgeting and Public Expenditure Management Systems (BPEMS) to help reform the budget formulation and implementation, accounting and

reporting, provide a computerized platform to run the entire financial management system of the government. Ghana faced major challenges in the implementation of the BPEMS programme and thus, failed to effectively implement the BPEMS programme. The major challenges encountered in the implementation of the BPEMS, according to Hendriks (2012), include; limited involvement and ownership of the stakeholders in the design and development of the BPEM; frequent restructuring of the project implementation team; low levels of local capacities and expertise; the project was mainly driven by donors and external consultants. The failure to implement the BPEMS programme effectively has led to the development and introduction of the Ghana Integrated Financial Management Information System (GIFMIS). The GIFMIS provides an integrated financial package to enhance effectiveness and transparency of public resource management through the computerisation budget management and the government's accounting system. It is thus seen as a transition from the manual processing of major public sector financial transactions to a centralized electronic platform.

### **1.3 Problem Statement**

Effective and efficient public financial management is an important component for holding governments accountable and thus, promotes good governance (Muhammed, 2014). The failure to attain financial accountability is generally linked to prevailing weaknesses in public accounting, expenditure control, cash management, auditing, and the management of financial records (Vani & Dorotinsky, 2008). To ensure financial accountability, there is the need to have a system that ensures effective financial management. Governments over the years have introduced programs aimed at ensuring effective and efficient financial management and hence, financial accountability.

For some decades now, the government of Ghana has pursued a number of reforms aimed at ensuring effective and efficient financial management in the public sector. These reforms have focused on strengthening the budget formulation and implementation as well as accounting for

government revenues and expenditure, liabilities and assets. These reforms have been encouraged by the World Bank and donor agencies through tying triggers in financial support (Minogue, 2000).

A number of studies on public sector management reforms have concluded that, the success of these reforms hinge on the effective implementation of these reforms. For instance, Short (2003) notes that, without the needed structures to ensure effective implementation of reforms, the intended benefits of these reforms will not be realized. Polidano (2001) adds that most public sector reforms fail not because of the contents or technical aspects of the reform programs, but because of the way, they were implemented. Effective implementation of public management reforms requires the political will or support from government, improvements in infrastructure necessary for the effective implementation and running of reform programs (Conrad, 2005).

The government of Ghana recently adopted the IFMIS. The IFMIS is intended to enhance public financial management through greater financial control and accountability (World Bank, 2001). Experience has shown that the implementation of IFMIS projects tend to stall in developing countries despite the considerable amount of resources allocated to such projects due to the nature of challenges they face (Vickland & Nieuwenhujis, 2005; Barata and Cain, 2011; Hendriks, 2012; Karanja & Nganga, 2014). This study therefore seeks to examine the implementation of the Ghana Integrated Financial Management Information System (GIFMIS) including the implications on accountability.

#### **1.4 Objectives of the Study**

The objectives of the study are:

- i. To examine the nature of the GIFMIS programme;
- ii. To examine the GIFMIS implementation processes;
- iii. To examine the factors that influence the implementation of GIFMIS;
- iv. To examine the accountability relationships emerging from the implementation of the GIFMIS programme;

#### **1.5 Significance of Study**

This study focuses on the implementation of the IFMIS program in Ghana. The findings of the study are expected to be important to policy makers, donors and to literature in a number of ways. Firstly, the outcome of the study provides vital information to the government and its agencies in the implementation of future reforms in public sector financial management. Second, the outcome of the study will also be useful to development partners interested in ensuring effectiveness and efficiency in public financial management. Finally, the study will also contribute to the extant body of literature on public financial management reforms. It is also hoped that, the outcome of the study will stimulate further research or studies on ICT/IT based reforms in public financial management in other jurisdictions. The replication of similar studies in other jurisdictions will be critical in the development or design of an appropriate framework for the implementation of IT related public financial management reform programmes

#### **1.6 Organisation of Study**

This study is organised into six main chapters. The chapter one of the study presents the general introduction of the study. Chapter two is dedicated to the review of extant literature. Chapter three presents a review of extant theories capable of providing explanations for the findings of

the study. Chapter four details the methodology employed for the study. Chapter five of this study provides a presentation and discussion of the results of the study. A summary of the study is presented in the chapter six of this study. Conclusions and recommendations are also presented in this chapter (six).



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviews extant literature on public sector management reforms. The chapter is organised along the following themes: the concept of public management reforms; public management reforms in Africa; IFMIS in public financial management; factors affecting the effective implementation of IFMIS and the accountability implications in the implementation of IFMIS.

#### 2.2 The Concept of Public Sector Reform

Organisational reforms have been conceptualised severally in literature. Hernes (2005) argues that, public sector reform can be conceptualised in three ways: as internal reform, as the adoption of new approach or as a particular organisational logic across institutional contexts. Other researchers have also attempted to provide several definitions for public sector reform. Despite the attempts by several researchers and studies, there seem to be relative divergent views of what the concept of reform is and what it is not. For instance, Pettersen (2001) conceptualises public sector reform as changes, from minor adjustments to management arrangements and fundamental changes in ownership, governance and management arrangements in the public sector. Thus, public sector reform encompasses changing the way institutions are structured, building or enhancing the capacity of public sector personnel, changing institutional processes of public sector institutions. The EU (2009) attempts to distinguish a mere reform from a genuine reform. According to the EU, genuine reform is the change that produces either measurable improvements in services or a noticeable change in relationships between institutions of state and the citizens. This thus suggests that, a genuine reform is one that produces, or intended to produce results that are either quantifiable or

verifiable by all. Thus, a reform is a change that results in, or intended to bring about improvements in the activities of an institution or organisation. For instance, a reform that changes the way in which civil servants are paid that has no impact on services or on the way those civil servants relate to the citizens would not be counted as a genuine reform.

The Economic Commission of Africa (ECA) defines public sector reform as processes and practices, which are concerned with improving the capacity of institutions to make policy and deliver services in an efficient, effective and accountable manner. In addition, it also involves the strengthening and management of the public sector.

Fatile and Adejuwon (2010) conceptualises public sector reform as a planned intervention to enhance the levels of public sector performance. They further added that, public sector reform must have carefully defined goals and a strategy towards the attainment of the identified goals. According to Schacter (2000), public sector reform is about strengthening the management of the public sector. Omoyefa (2008) also notes that, public sector reform involves overhauling the government machinery with the aim of injecting real effectiveness, efficiency, hard-core competence, and financial prudence in the running of the public sector.

The above suggests that, there are varied definitions and views of what public sector reform is and what it is not. This is illustrated by the plethora of definitions of public sector reform by both development partners or institutions and academic researchers. These notwithstanding, the underlying theme of or the dominant view of public sector reform in all the numerous definitions of public sector reform is the attempt by governments to change the ways of doing things. Changing the ways of doing things may result in changing the existing structures and focus of governance, institutional processes and/or public sector personnel. That is, the attempts by national governments aimed at bringing about observable changes or

improvements in the management of the public sector institutions. The primary aim of public sector reforms is to enhance or bring about improvements in public service delivery.

### **2.3 History and Dimensions of Public Sector Reforms in Developing Countries**

Most less developed countries (LDCs) including Ghana have adopted widespread programs of public sector reforms. These reforms were initiated and/or introduced to correct the deficiencies in public sector institutions or public management systems (Bekkers, 2010; Simpson, 2012).

The deficiencies these public sector institutions sought to address include – relatively large public sector, poor or weak public financial management systems, growing public debts portfolio. The relatively large size of the public sector meant high operating or running costs that in turn translated into high government expenditure. Governments resorted to borrowing to run the operations of the public sector institutions, as they were unable to generate adequate resources. Thus, government expenditure exceeded its revenue generation capacity and this culminated into high public debts.

The inefficiencies in the management of public resources/funds according to Simpson (2012) include – poor budget formulation and implementation, delays in the provision of financial reports to aid government decision-making and/or budget formulation among others. Transnational bodies such as the World Bank, the IMF and other donor agencies according to Uddin and Tsamenyi (2005), have championed the widespread public sector management reforms in developing economies. These reforms were in response to falling economic growth bedevilling most developing countries. Ineffectiveness and inefficiencies in public services accounted for the falling economic growths. According to Hope (2001), the public sector was characterized by the lack of accountability in public resource management. Bribery and corruption became the only means of getting things done. The public sector was then seen as safe havens for obtaining wealth.

Kiragu (2002) classified or categorised the numerous public sector reforms in in sub-Saharan Africa into three phases. Schacter (2000) on the other hand categorised these reforms based on the typologies of the reform programmes. For instance, administrative capacity building; strengthening policy capacity; institutional reform; and civil service downsizing.

### **2.3.1 Phase One Reform Programmes**

The first wave of public sector reform programmes in sub Saharan Africa, and for that matter Ghana, were introduced in the mid-1970s. The reform programmes introduced during these periods focused on restructuring public service delivery in the public sector. The restructuring of the public service delivery is what is otherwise referred to as the Structural Adjustment Programmes (SAPs). The SAPs were primarily aimed at reducing government expenditure and stabilising macro-economic issues such as balance of payment and fiscal deficits, rising inflation rates (Mwenda & Tangri, 2014; Kiragu, 2002). The SAPs targeted cutting down public sector wage bill through downsizing and decompressing public sector wage scales; divesting non-core government operations (Van de Walle, 2001; Kiragu, 2002; Mwenda & Tangri, 2014). Seal (2003) support this assertion. According to Seal (2003), the SAPs were conceived to introduce market reforms, privatize some state-owned enterprises, reform and to incentivize the public sector to be effective and efficient. The reform programmes introduced during these periods were designed specifically to make governments lean and affordable through cost reduction and containment measures.

The World Bank initiated the Structural Adjustment Programs (SAPs) to guide most LDCs including Ghana towards the New Performance Management (NPM) concepts. Financial management reforms also formed a major part of the reforms in the public sector during the periods of the SAPs. These financial management reforms involved institutional restructuring, improvements in legal and regulatory frameworks.

These notwithstanding, the public sector reform programmes in the first phase of the public reforms failed or had little impact on public service delivery (Kiragu, 2002). Lienert and Modi (1997) add that, the public sector reforms were only successful at reducing the size of the public sector and/or government and related costs, however the quality of public service delivery saw minimal improvements. Thus, the first wave of public sector reforms overemphasised reducing the size of governments at the expense of the quality of public service delivery. Factors such as lack of ownership of reform programmes and lack of commitment to implementation contributed to the minimal impact of the reform programmes introduced in the mid-1970s (Kiragu, 2002).

### **2.3.2 Phase Two Reform Programmes**

The criticisms of the reform programmes introduced in the mid-1970s led to the introduction of “phase two” reform programmes. The second wave of public sector reform programmes were introduced in the late 1990s in the sub-Saharan Africa. The reform programmes introduced in these periods, according to Kiragu (2002), focused on improving public service delivery through capacity building. The relatively lack or weak local capacity was identified as a major contributory factor to poor public service delivery. Thus, public sector staff lacked the requisite capacity or skill to effectively and efficiently run and provide quality public services. Donor agencies and other international bodies such as the UNDP and the World Bank championed the programmes aimed at improving the capacities of public sector employees/staff through the introduction of staff training programmes as well as the provision of technical support. For instance, the World Bank, in 1995, provided technical assistance to Ghana. These notwithstanding, other development/donor agencies such as the Swedish International Development Agency (SIDA) focused on the development of financial management systems. Thus, reform programmes introduced during these periods focused not only on improving the capacity of public sector human resource, attempts were also made to

ensure effective and efficient management of public resources. According to Kiragu (2002) and Mutahaba and Kiragu (2002), the dominant interventions or reforms in the second phase of public sector reforms included reforms that sought to enhance staff skills, improve management systems and structures, improve public sector working environment.

The public sector reform programmes introduced in the second phase of the public sector reforms, just as the reforms introduced in the first phase, did not have significant impact on improving public service delivery.

### **2.3.3 Phase Three Reform Programmes**

The seeming failure or inadequacy of the reform programmes in the first two phases of the public sector reforms lead to the introduction of the “phase three” public sector reform programmes. To this, the World Bank’s report in 1997 suggested that, to have a sustained economic development, it is important to have an effective, responsive and legitimate nation or state (World Bank, 1997). Kiragu (2002) noted however that, reform programmes introduced in this phase were necessitated by six main factors. Kiragu (2002) further categorised these factors or drivers into strategic factors (that is, the first, fifth and sixth factors) and response to global practices (that is, the second, third and fourth factors). These are;

- ❖ The need to demonstrate early results (that is, the need to respond to the shortcomings of previous reform programmes)
- ❖ Public demand for transparency and accountability
- ❖ Shift to market economies and private sector-led economic growth
- ❖ The influence of new public management
- ❖ The need for reform programmes to support sector-wide approaches
- ❖ The pursuit of integrated system approach

Thus, majority of the public sector reform programmes in the late 1990s and the mid-2000s focused on correcting the wrongs of the previous reform programmes, enhancing efficiency in public resource management as well as promoting transparency and accountability.

#### **2.4 Motivations for Public Sector Reforms in Developing Countries/Africa**

Governments all over the world have embarked on a number of reforms in the public sector. These reforms have encompassed several areas of the public sector. This notwithstanding, financial management reforms have gained much attention as far as reforms in the public sector are concerned. These reforms have been occasioned or motivated by a number of factors. Pretorius and Pretorius (2008) and Vani and Dorotinsky (2008), identified several drivers of public financial management reforms. The identified drivers include fiscal crisis, political change, public pressure, post conflict, new technology, regional requirements and donor pressures. However, donor support in less developed countries is more pronounced compared to the drivers of public financial management reforms in advanced or developed countries. According to Pretorius and Pretorius (2008), reforms in countries in central and eastern European countries, wishing to join the European Union (EU), are propelled by the need to meet the requirements of the EU.

Furthermore, whereas financial management reforms in European countries have focused more on internal controls, internal audit and external audit, public financial management reforms in LDCs tend to focus on budgeting, accounting and reporting systems (Wescott, 2008; Simpson, 2012). For instance, transnational and donor agencies have since the latter parts of the 1980s been providing assistance to developing countries, especially in Africa, to improve their somewhat hitherto weak budget formulation and implementation systems. Notable amongst these financial management reforms are the medium term expenditure framework (MTEF) and the BPEMS. This notwithstanding, issues of corruptions, inefficient financial management still lingers in the public sector. These have led to the introduction other financial management

reform programs in the public sector. For instance, the development and introduction of the IFMIS reform program is intended to reduce corruption and enhance accountability in the public financial management.

In a study of public management and administration education in 2005, the author, Tolofari (2005) argues that, public sector reforms are mainly driven by economic stagnation and lack of accountability in public management. Yamamoto (2003), also argues that, lack of accountability in the public financial management have accounted for major reforms in the public sector. The economic stagnation is seen in huge public debts, balance of payment problems, high unemployment rates, underperforming industries, among others. Economic issues and lack of accountability have accounted for majority of the public financial management reforms in most LDCs including Ghana.

Other studies in public sector management have identified other drivers of reforms in the public sector. These other factors identified include social factors and intellectual factors (Ferlie, 1996), political factors (Larbi, 1999; Kiiiza, 2000). These seem to suggest however that, public management reforms cannot be seen as the impact or the result of one factor, but rather of a variety of factors.

## **2.5 IFMIS and Public Financial Management**

The Integrated Financial Management Information System (IFMIS) is a financial information system that trails financial events or transactions and provides summaries of financial information. Karanja and Nganga (2014) however note that, in its basic form, IFMIS is more than an accounting system designed to function based on the information needs and the environment within which it is installed. IFMIS provides support for management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements

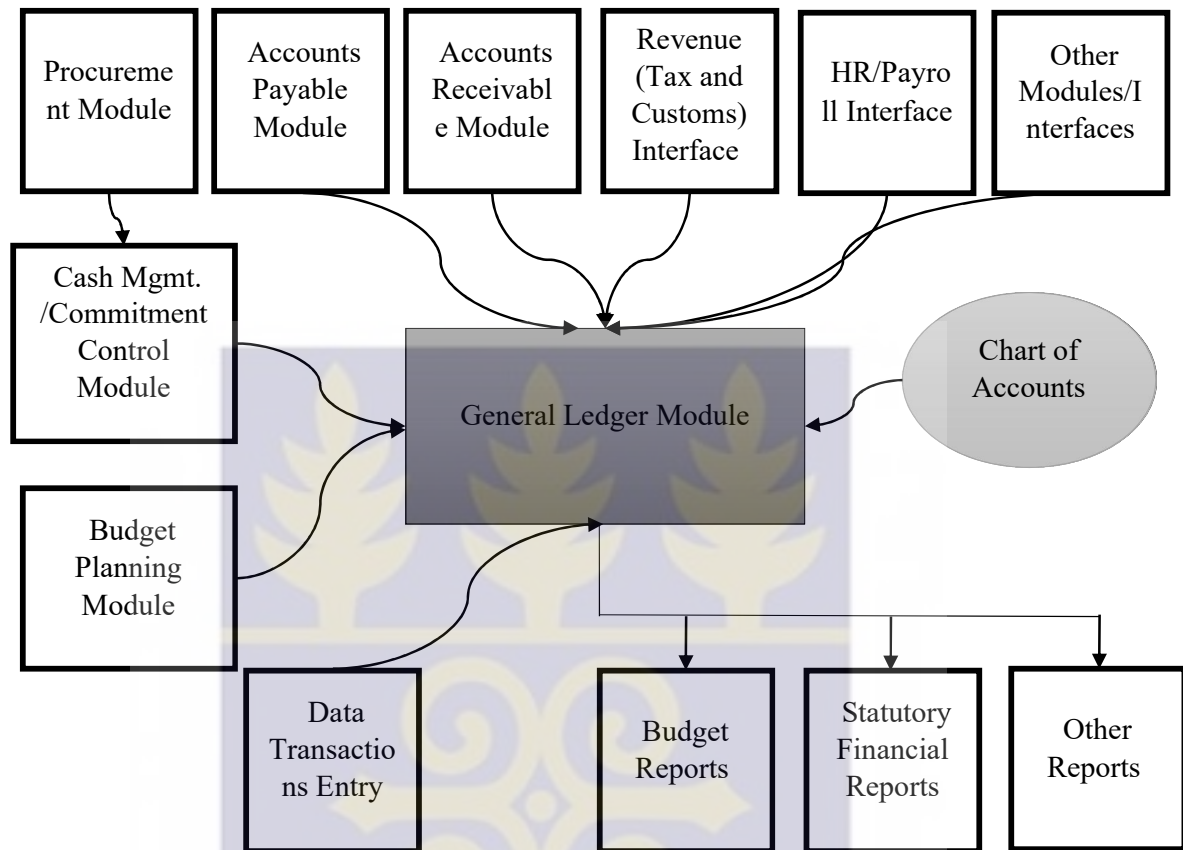
(Hendriks, 2012; Diamond & Khemani, 2005). Thus, IFMIS is the computerisation of financial management system of organisations.

In the context of public financial management, IFMIS is the automation of the financial management systems and processes of public institutions. Thus, it encompasses the computerisation of the formulation, preparation and execution of public budgets through to the accounting and/or reporting of public financial information with the help of an integrated system (Peterson, 2007). According to Karanja and Nganga (2014), the development and introduction of IFMIS in public financial management is regarded as a precondition for achieving effective management of budgetary resources. IFMIS provides governments a financial management tool that supports financial control, financial management and planning (budgeting). IFMIS may be seen as a computerised system that integrates key financial management functions, promotes efficiency and security of data management, and enhances comprehensive public financial reporting.

### **2.5.1 Basic Components of IFMIS**

IFMIS is a comprehensive financial management system with several modules or composite financial management systems. Ameen and Ahmad (2011) note that, the extended module, through the authorisation of budget tracking and cash flow monitoring, paves way for anti-corruption reforms in public financial management. The figure below is a conception of the components of a typical IFMIS system.

**Figure 2.1: Basic Components of IFMIS**



*Adopted from Rodin-Brown (2008)*

## **2.5.2 Benefits of IFMIS in Public Financial Management**

### **2.5.2.1 Promote Transparency and Accountability**

Lack of transparency and accountability have been identified in literature as significant factors that promote or contribute to the growth of corrupt practices and/or inefficient financial management, especially in the public sector (Oye, 2013; Ameen & Ahmad, 2011; Pathak et al, 2009). Transparency and accountability are seen as the panacea to cutting or reducing corruption, and thus, promote effectiveness and efficiency in public financial management (Pathak et al, 2009; Pretorius & Pretorius, 2009).

Extant literature on public financial management however conclude that the introduction of IFMIS promotes transparency and accountability in public financial management. For instance, Kiilu and Ngugi (2014) note that, the introduction of IFMIS in public financial management promotes efficient financial controls and accountability. The introduction of IT and/or integrated systems in public financial management offers objectivity, transparency, accountability and traceability of transactions and events in the financial management systems.

#### ***2.5.2.2 Reduce Corruption in Public Financial Management***

Rose-Ackerman (2004) defines corruption as the abuse of public power for private gains or benefits. Corruption has been identified as one of the major obstacles to economic development, especially in public financial management. The works of Toatu (2004) and Andersen (2009) confirm this assertion. According to Toatu (2004) corrupt practices in the public sector has a deleterious effect on economic growth. The study by Toatu (2004) and Andersen (2009) indicate that there is a very strong relationship between the level of corruption and the size of the public sector. Developing countries are noted to have very large public sectors. This thus explains the high prevalence of corruption in the public sector of most developing countries.

Literature on governance and accountability have identified several factors or drivers of corruption in public management. Monopoly of power, discretion and lack of accountability and transparency have been identified as the main drivers of corruption in the public sector (Ameen & Ahmad, 2011; Ameen & Ahmad, 2012; Bertot, Jaeger, & Grimes, 2010). Other authors also identified and/or classified the factors that drive corruption in the public sector as political, economic and cultural factors (Oye, 2013). The identification and/or classification of the drivers of corruption is necessary in order to identify those which can be easily eliminated or reduced by the introduction of IT initiatives in public financial management.

Attempts to reduce the prevalence of corruption in the public financial management have culminated in the proposition of a plethora of solutions. The conventional approach to combating or eliminating corruption in public financial management, according to Ameen and Ahmad (2012); Bertot et al (2010), have often focused on institutional reforms, law enforcement and social change. However, a plethora of recent studies on public financial management and corruption have proposed the introduction of IT or integrated information systems in public financial management. For instance, Oye (2013), and Ameen and Ahmad (2012) argue that, the introduction of IT in public financial management or the automation of public financial management processes enhances effective information sharing and monitoring of transactions. Rahman, Smith, and Agarwal (2009) also note that experience from a number of countries, both developed and developing, indicate that e-governance or the introduction of IT initiatives in public financial management promotes greater transparency leading to reduction in corruption. Ameen and Ahmad (2011) note specifically that the introduction of IT in public financial management can reduce corruption by lessening the discretion of officials and increasing transparency.

These notwithstanding Mahmood (2004), notes that the introduction of IT or integrated information systems in public financial management will reduce corruption if it is understood by both policy makers and public managers. Also adds that, the introduction of IFMIS or IT in public financial management will only be effective if the system is designed with an appropriate conceptual framework.

#### ***2.5.2.3 Real Time Information Sharing***

According to Diamond and Khemani (2005), the introduction of IFMIS in public financial management improves the processing and sharing or access to government financial transactions. This thus promotes efficient access to reliable financial data. Integration is the key to any successful IFMIS and integration implies that the system uses standard data

classification for recording financial events; has internal controls over data entry, transaction processing, and reporting; and has common processes for similar transactions and a system design that eliminates unnecessary duplication of data entry (Rodin-Brown, 2008). Simpson (2012) further adds that the integration of information systems promotes flexibility in the sharing of information. Flexibility in the sharing of financial information will thus promote quick and effective economic decision making in the public sector.

#### ***2.5.2.4 Enhance Budget Implementation and Expenditure Control***

The IFMIS system allows government to track public expenditure using the budget and commitment modules and thus, provide a basis for controlling budget spending (Tsamenyi et al, 2006; Diamond & Khemani, 2006; Kasumba, 2009). IFMIS has a budget and commitment modules. The budget module of the IFMIS enables the central government to set expenditure ceilings. The commitment module on the other hand allows for the control of fund balances not disbursed at specific periods. The commitment module, according to Peterson (2007), is critical or important in avoiding public expenditure arrears.

### **2.6 Approaches to Implementing IFMIS in Public Financial Management**

Implementation has been conceptualized in several ways by different authors. For instance, the pioneers of the concept of implementation, Pressman and Wildavsky (1984), defined it as the various activities directed towards the achievement of set goals. O'Toole (1995) on the other hand, defined policy implementation as the developments between government's intention and the plethora of actions geared towards the realization of the objects of the intention. Thus, policy implementation involves all activities that facilitate the realization of a predetermined goal or set objective. To this, Paudel (2009) succinctly conceptualized policy implementation as process, output and outcome.

Public policy implementation involves a series of interrelated activities directed towards accomplishing set objectives or goal. These activities encompass the actions and inactions of government or the policy decision maker. These activities are aimed at achieving a predetermined goal or objective(s). The achievement of the set or predetermined objectives of the various activities are or represent the output of the implementation. The outcome of the implementation reflects the impact of the policy on society or organisation. The outcome of the implementation reflects the measurable and observable changes emanating from the implementation of the policy or programme.

Since the pioneering work of Pressman and Wildavsky (1984), several approaches to implementing public policy or programmes have been identified by different authors. Extant literature on public policy or programme implementation have identified top-down and bottom-up as the conventional approaches to implementing public programmes or policies. The two approaches or perspectives of policy or programme implementation are discussed below.

### **2.6.1 Top-Down Approach**

With the top-down approach to implementing public policy or programme, a higher author specifies policy goals and the strategies to achieving them (Paudel, 2009). The higher authority could be management of organisations or political leadership of a state or an economy. Under this approach, the implementation strategies thus reflects the views of the policy maker or the implementing authority without the inputs of the local or personnel at lower levels of the organisation. Thus, authorities thus, exercise control over the environment and the various implementers or actors (Younis & Davidson, 1990).

According to Paudel (2009), the top-down model or approach to implementing policy or programme highlights formal steering of problems and factors. Paudel (2009) further adds that, the tenets or foundations of the top-down approach are rooted in statutory language. Thus,

emphasise clarity, rule promulgation, monitoring and independent decision making of implementing authorities based on technical criteria.

The top-down approach to implementing public policy and programmes has received a variety of criticisms in literature. For instance, Berman (1978) argues that, the top-down implementing approach could promote or lead to resistance to new programmes and policies. The author further adds that, the top-down approach fails to consider the significance of earlier actions taken as it relies largely on statutory language as its starting point. The approach also identifies policy or statute framers as the important actors in the implementation of public policies or programmes. This means that the views or inputs of the other personnel or actors involved in the implementation are ignored.

### **2.6.2 Bottom-Up Approach**

The bottom-up approach, unlike the top-down approach, directs attention at both formal and informal relationships (Paudel, 2009; Howlett & Ramesh, 2002). With this approach, the views or inputs of personnel at lower levels (referred to as street-level bureaucrats) are considered in the development of policies or programmes and implementation strategies. They are considered critical in the implementation of the policies or programmes. Under this implementation approach, several actors are identified at the initial stages of the policy formulation and implementation. The objective, according to Paudel (2009), is to establish relationship amongst them. The street-level bureaucrats are perceived to have better understanding of the problems or issues. To this, Paudel (2009) and Winter (2003) argue that, the identification and involvement of numerous actors in the implementation of public policies and programmes facilitates the identification of an effective implementation structure. Bogason (2000) also adds that, the bottom-up approach to implementing policies and programmes reduces resistance to change and hence facilitate the effective implementation of public policies and programmes.

Despite the upsides of the bottom-up approach, other authors have identified two main weaknesses of the bottom-up implementation approach. For instance, DeLeon and DeLeon (2002), notes that, the bottom-up implementation approach ignores the processes of policy or programme design. The author noted that, almost all programmes are designed or initiated by people in authority and ‘pushed’ down on the people. Weaver (2009) also added that, the street level bureaucrats might sabotage the efforts of elected public officials since they (street level bureaucrats) are not accountable to the public.

Within the above identified conventional approaches, extant literature have identified two other important strategies to implementing public financial management reforms in the public sector - a phased and the one-time implementation approaches or strategies (Hendriks, 2012). It is important to note majority of these authors favour the phased approach to the implementation of IFMIS. For instance, Hendriks (2012) notes that IFMIS is a very complex and expensive system or programme and thus, require patience and piecemeal approach to implementing IFMIS programme. Rodin-Brown (2008) echoes a similar sentiment. According to Rodin-Brown (2008), a phased approach is ideal for implementing programmes that affect organisational processes and functions. A phased or gradual implementation approach to implementing public management offers the best opportunity to effective implementation of IFMIS. Hendriks (2012) adds that, a phased implementation approach allows for regular monitoring and review of the project as it is being implemented. Regular monitoring and review of the implementation will thus aid in the early detection of potential future challenges. To this, Rodin-Brown (2008) argues that it is highly risky to implement too many components of a system at the same time.

## **2.7 IFMIS Implementation Processes and Strategies**

The foregoing section considered the approaches for implementing IFMIS programmes, this section focuses on the processes and strategies for the implementation of IFMIS programmes in the public sector. According to Rodin-Brown (2008) successful implementation of public policy or programme require a process, not a single event. The process must be broken down or organised into stages of planning, purposeful action(s) and evaluation. Peterson (2007) also adds that effective and efficient strategies are also essential to the successful implementation of IFMIS programmes in the public sector. This section is further organised into two sub sections. The first section focuses on the review of literature on IFMIS implementation processes. The second sub section focuses on the review of literature on IFMIS implementation strategies.

### **2.7.1 IFMIS Implementation Processes**

There seem to be limited emphasis on the IFMIS implementation processes in literature. That is, extant literature does not explicitly provide processes that must be followed in the implementation of IFMIS in the public sector. However, the experience of past successful IFMIS implementers provide common processes followed in the implementation of the IFMIS programme. These IFMIS implementation processes are presented below.

#### ***2.7.1.1 Needs Assessment***

According to Rodin-Brown (2008), the introduction of the IFMIS in public financial management must be preceded by a critical evaluation or assessment of the need for an IFMIS. Rodin-Brown (2008) adds that, the central question(s) to ask during the needs assessment stage of the implementation is the impact of the IFMIS system on public financial management. The needs assessment must consider the scope of the public financial management system, the institutions to use the system and a careful evaluation of available software packages that meet the needs or requirements of the IFMIS system (Peterson, 2007).

### ***2.7.1.2 Designing Chart of Accounts***

Another key step in the introduction or implementation of IFMIS in public financial management is the design of a uniform Chart of Accounts (CoA) (Rodin-Brown, 2008; Hendriks, 2012; Karanja & Nganga, 2014). The design of a uniform CoA according to Rodin-Brown (2008) facilitates the ‘smooth’ implementation of the IFMIS across all MDAs and MMDAs. Karanja and Nganga (2014) and Hendriks (2012) also add that the design of a uniform CoA facilitates the sharing and processing of transactions between and among all government agencies. To highlight the importance for the development or design of a uniform CoA, Karanja and Nganga (2014), and Rodin-Brown (2008) noted that, the implementation of IFMIS in Uganda endured several months of delays and considerable cost overruns due to deficiencies in the existing CoA.

### ***2.7.1.3 Capacity Building***

Capacity building is an important process in the implementation of the IFMIS and other public financial management reform programmes (Rodin-Brown, 2008). There is the need to improve or strengthen the capacity of the public service personnel to use the IFMIS system platform. The objective of the capacity building is to clearer understanding of the objectives for the introduction of the new system. This according to Woodall (1996) reduces resistance to the implementation of the system.

Crisp, Swerissen and Duckett (2000) define capacity building as an ongoing process of improving or enhancing and preparing people for change in existing structures and systems. The capacity building processes include organising training workshops (Peterson, 2007). These workshops should include both senior administrators and general staff. This is done to facilitate acceptance of the system or programme (Motwani, Mirchandani, Madan, & Gunasekaran, 2002; Hong & Kim, 2002).

#### ***2.7.1.4 Testing IFMIS System***

The next stage after the capacity building is to pilot the IFMIS programme in selected government agencies. At this stage of the implementation process, the system is tested for system functionality. The piloting of the system enable the implementers identify and address any potential future challenges that may be encountered. It also enable the implementers get feedback from the users of the system. According to Rodin-Brown (2008), the IFMIS systems introduced in the Slovak, Kosovo and Slovenia were all pilot-tested prior to the full implementation of the IFMIS programme.

#### **2.7.2 IFMIS Implementation Strategies**

A review of literature on the strategies for the implementation of IFMIS programmes are presented in this section.

##### ***2.7.2.1 Change Management***

New reform or public financial management programmes or systems bring about changes in organisational processes and functions. These changes in organisational processes, according to Jiang, Muhanna and Klein (2000), leads to changes in job content and thus creates uncertainties of the new system. Due to the changes in the organisational work processes and contents, the affected persons or forces within the organisation may resist the introduction of the new system for fear of job loss (Hong & Kim, 2002; Laughlin, 1999). Motwani, Mirchandani, Madan and Gunasekaran (2002), share a similar view. They argue that, individuals or groups within the organisation resist changes that are perceived to pose threats to their job security. Cooper and Zumud (1990) add that, organisational resistance to IT programmes significantly inhibits effective implementation. There is therefore the need to effectively manage the process of transitioning from one or current system to the new system. Hong and Kim (2002) suggest that, successful change management processes require balancing forces in favour of the change against those who oppose the change. Stoddard and Jarvenpaa

(1995) outline tactics for managing change in the organisation. They propose a careful consideration of the pattern of change (that is, formal versus informal); top hierarchy commitment to change; the scope of the change (radical change versus continuous improvement); alleviation of dissatisfactions.

Lewin (1947) on the other hand developed a three-stage model for managing an organisation-wide change. According to Lewin (1947), effective change management goes through three main stages – unfreezing, change, refreezing.

Unfreezing, the first stage in the change management cycle involves preparing the minds of the all persons and/or groups who will be affected by the implementation of the organisation-wide policy or system. This involves clarifying the need for the change, the objectives for the change, how the new policy or system will affect organisational processes. The unfreezing stage lends legitimacy and enhances commitment to change process (Woodall, 1996). Effective unfreezing is achieved by senior management workshops facilitated by consultants as well as leaders of various groups and sub-groups within the organisation who may be responsible for the training of other personnel at the lower levels of the organisational hierarchy (Woodall, 1996; Guha, Grover, Kettinger & Teng, 1997).

The second stage of the change management process is where the actual change takes place. Individuals within the organisation are introduced to the new systems, organisational processes or functions. The aim of the second stage of the change management process or model, according to Schein (1996), is to alter the work processes or the behaviour of individuals in the organisation. This, according to Burnes (1996) and Schein (1996) requires further training aimed at equipping staff with the requisite skills for the new programme or system. Transitioning from old systems or ways of doing things to new system might take considerable time for individuals within the organisation to embrace the change hence, requires time and

constant communication (Burnes, 1996). Individuals within the organisation need time to assimilate or understand change. Constant communication with individuals within the organisation, throughout the transition period, creates a feeling of connection with the organisation.

The third stage of Kurt Lewin's change management process is termed refreezing. The focus of "refreezing" is to ensure that new behaviours, systems or organisational processes are well internalised. According to Burnes (2004) and Schein (1996), the third stage of Lewin's change management model or process ensures that new behaviours or organisational processes are consistent with the behaviour and personality of the learner or individuals within the organisation.

#### ***2.7.2.2 Clear Communication of Goals***

IFMIS and/or IT related programmes are complex projects that affect organisation wide activities and processes. This therefore suggests that such projects or programmes will lead to the redefinition or reassignment of functions or tasks and may lead to loss of jobs. Thus, the development and/or introduction of IT programmes may lead to radical changes in the organisation and if not well managed, could breed resistance to such programmes (Hendriks, 2012). In an attempt to avoid resistance to IT/IFMIS programmes Burnes (2004) notes that, the essence and impact of the programme must be communicated to the various groups or the affected persons within the organisation.

According to Umble, Haft and Umble (2003), most IT related programmes have failed to produce their intended benefits as a result lack of clarity in project goals or objectives. Successful implementation of IFMIS/IT programmes in the public sector thus require the effective communication of the programme goals at the development and initial stage of the programme implementation.

### **2.7.2.3 Clearly Defined Period**

The importance of clearly defined time scales in the implementation of complex organisation-wide systems of programmes such as the IFMIS cannot be overemphasised (Motwani et al, 2002; Shanks, 2000). For instance, Motwani et al (2002) notes clearly defined time scales enables the project or programme to be assessed for progress or otherwise. Shanks (2000) on the other hand argued that, in the implementation of complex systems or programmes, it is imperative to break down complex IT related projects into several smaller and simple projects to be achieved within definite time periods. Clearly defined time scales enable implementers of programmes or projects to focus their attention on certain key aspects of the programme. Thus, it promotes commitment to accomplishing the implementation task.

### **2.7.2.4 The Involvement of Other State Institutions**

Extant literature on the adoption, implementation of the IFMIS programme conclude that, one of the main benefits of IFMIS is to enhance accountability in public financial management and hence, reduce corruption (Andersen, 2009; Tsamenyi et al, 2006). The quest to enhance accountability in public financial management requires a close collaboration between or among all accountability institutions. Ezz, Papazafeiropoulou and Serrano (2009), highlight the relative significance of inter-organisation collaboration in the implementation of IT programmes in the public sector. For instance, they argue that, one of the main challenges of in the implementation of IT based programmes in the public sector is the lack of collaboration practices between or among government agencies.

The accountability literature (for example, Gendron, Cooper, & Townley, 2001) as well as other international institutions have identified audit institutions as one of the important accountability institutions. This thus suggests that, there is the need to collaborate or involve such institutions in the implementation of the IFMIS programme. This notwithstanding, Hendriks (2012) notes that, more often than not, key accountability institutions such as the

national audit department or institutions are neglected from the implementation of IFMIS programmes, especially in developing countries. The effect of neglecting these accounting institutions is that, they may not be able to, effectively and efficiently perform their functions or roles in ensuring accountability in public financial management effectively.

## **2.8 Factors Affecting the Implementation of IFMIS in the Public Sector**

The IFMIS is a very complex information system and thus, poses some significant challenges and a number of risks to its successful implementation (Hendriks, 2012). In the study of information systems in developing countries, Heeks (2002), classified ICT based project success and failure into three main categories, depending on the degree of success. The first is the total failure of an initiative never implemented or in which a new system was implemented but immediately abandoned. The second, partial failure of an initiative, in which major goals are unattained or in which there are significant undesirable outcomes. The last is success of an initiative where most stakeholders attain their major goals and do not experience undesirable outcomes. The categorization of Heeks (2002) is very relevant since it can be used to categorize the IFMIS and other similar projects implemented by the government.

The introduction of integrated financial management information system in the public sector has encountered a number of implementation challenges. These challenges serve as obstacles to the effective implementation of IFMIS reform programmes in the public sector of many countries, both developed and developing (Seifert & Petersen, 2002; Carter & Weerakkody, 2008). Studies on the implementation of IFMIS and other IT related public sector reform programmes have identified a plethora of factors that pose as challenges to the effective implementation of IFMIS in the public sector. For instance, instance Diamond & Khemani (2006); Bhatia (2003) identified a lack of capacity as one of the key challenges faced by countries that have been unsuccessful in the implementation of the IFMIS project. IFMIS is an IT based system and thus, requires personnel with the requisite knowledge and skill. Miranda

and Keefe (1998) also identified system functionality as a major challenge to the effective implementation of IFMIS and other related public sector management reform programmes or policies. Aidoo-Buameh (2014) identified political support or commitment as a major factor for the successful implementation financial management reforms in the public sector. Diamond and Khemani (2005) in their study also documented a number of factors that serve as obstacles to successful implementation of IFMIS reforms. The factors identified include – lack of incentives for reforms, underestimated managerial inputs required, failure to undertake parallel reforms required IFMIS, failure to re-engineer procedures, lack of clarity in the ownership of the system and unclear authority to implement, relatively short project time table as well as the political support at all levels of government and government agencies. Hashim (2010) in the study of Information systems (IS) implementation in the local government identified economic issues as one of the factors that affects or hinder the smooth implementation of IT/IS programmes in the public sector. Hashim (2010) defined economic issues to include issues as strategic planning, budgeting, timeframe and scheduling, contracts, external consultants and outsourcing. Gichoya (2005) also identified infrastructure, financing or funding, skilled personnel, data systems and capability, as well as administrative and political leadership styles as some of the factors or issues that affect the effective implementation of IT/IS reform programmes in the public sector of less developed countries.

An examination of the e-government literature indicates that researchers have identified a number of factors that affect the effective or smooth implementation of IFMIS and other IT related programmes in the public sector. However, these can be further categorised under four broad common themes:

### **2.8.1 Political Factors**

According to Polidano (2001), as cited in Ohemeng (2009), political and administrative support is key in the implementation of reform programmes in the public. He argued further that, political and/or administrative support help scale past the implementation hurdle. Heeks (2003) shares a similar view. According to Heeks (2003), public management reform programmes require, not only political commitment, but also political and administrative support throughout the implementation phases of reform programmes. Public management reform programmes require the support and approval from political and administrative figures in order to avoid unnecessary interruptions and delays during the implementation of such reform programmes. Weerakkody and El-Haddadeh (2011) argues that, political and administrative support of reform programmes enables officials to implement public reform programmes with confidence. Krishna and Walsham (2005) adds that, continual political and administrative support is required to avoid possible initial resistance to the smooth implementation of public management reforms.

Political and/or administrative commitment and support for the implementation of public management reform programmes can be demonstrated in several ways. According to Robinson (2007), political and administrative support or commitment can be demonstrated in several ways. One way of demonstrating support and commitment to the implementation of public sector reform programmes is through the timely release or provision of adequate resources (Robinson, 2007; Hendriks, 2012). The timely release and/or provision of adequate resources or provision of adequate infrastructure, is very important for the effective implementation of IT/IS reform programmes in the public sector. The provision of resources (for example, infrastructure, human resource, funding) facilitates the effective implementation of IFMIS. Other ways of demonstrating political support or commitment include leadership (Jaeger & Thompson, 2003; Imran & Gregor, 2007), willingness to initiate legal change to support reform

programmes (Hashim, 2010, Imran & Gregor, 2005). Political and administrative support for public financial management reform programmes could also be demonstrated through continuous support after a shift or change in the political leadership or governance system of a country (Doreen & Sterck, 2006). According to Pollitt and Bouckaert (2004), elite decision or changes in political systems or leadership have considerable influence on public sector reforms than the day-to-day operational activities. According to Dooren and Sterck (2006), public sector reforms are transformed through political and administrative processes. This therefore suggests that, the success or otherwise of public management reforms, to some extent, depends on the stability of the political system of the country. This means that, continued political support is a prerequisite for effective implementation of public management reforms. This continued political support could be guaranteed by a stable political governance system or regime.

### **2.8.2 Organisational Factors**

Organisational factors have been identified in literature as an important factor to consider in the implementation of integrated information systems (Wainwright & Waring, 2004; Waring & Wainwright, 2000). For instance, Wainwright and Waring (2004) argue that successful integration of information systems requires careful analysis of the organisational factors. The information systems literature identifies a profusion of organisational factors that affect the implementation of IT/IS programmes, in both the private and public sector. To accentuate the significance of organisational factors, Wanyama and Zheng (2010) concluded that apart from technological issues or factors, most of the challenges faced in the implementation of IFMIS relates to organisational factors.

The organisational factors identified by literature include organisational structure, organisational culture, user attitudes, employees and organisational values (see (Weerakkody

& Dhillon, 2008; Janssen & Shu, 2008; Haddadeh & Al-Shafi, 2010; Owusu, 2012; Schein, 1992).

The organisational structure creates a pattern of interrelated work activities that enables the organisation to conduct, coordinate and control work processes or activities that enables the organisation to conduct, coordinate and control work processes or activities (Weerakkody & Dhillon, 2008; Jansen & Shu, 2008; Weerakkody, El-Haddadeh & Al-Shafi, 2010; Owusu, 2012). The organisational structure can provide support or otherwise, for the technology and organisational growth and thus, serves as an important factor in the implementation of information systems in the public sector. Hence, it is important to appreciate the existing organisational culture and structures to gain an understanding of how these structures will facilitate or limit the effective implementation of integrated information systems in the public sector.

Another important factor to consider in the implementation of IT programmes identified in literature is the quality of personnel in the organisation (see Diamond & Khemani, 2006; Bhatia, 2003; Soja, 2008; Schuppan, 2009). IFMIS is a very complex system hence, require personnel with high level of skill or IT/IS capacities to manage and operate the system. However, according to Diamond and Khemani (2006), Bhatia (2003), Soja (2008), and Schuppan (2009), lack of personnel with adequate IT capacity continue to be one of the significant factors that militates against the effective implementation of IT related reform programmes, especially in developing economies. The inadequate personnel with requisite capacities according to Bhatia (2003), and Vickland and Nieuwenhujis (2005) could be attributed to the unattractiveness of the public sector. Thus, poor salary structure and conditions of service makes the public sector unattractive. Hendriks (2012) however notes that, the lack of personnel with the requisite knowledge and skills cannot be easily remedied by training.

In addition to the above organisational factors, Kasumba (2009), Tsamenyi, Cullen and González-González (2006) argue that, the attitude of the intended user must be critically considered in the implementation of IT related reform programmes. Positive attitudes towards new systems or information systems enhances acceptability. Acceptability of new information systems in organisations promotes effective implementation. For instance, Tsamenyi et al (2006) and Philopidou et al (2008) argue that, new information systems are likely to be resisted especially where the system is perceived as a threat to the survival of existing personnel. Hence, individuals with relatively low IT literacy are likely to resist the introduction of new IT related programmes or systems such as IFMIS. Resistance to the introduction of new information systems will lead to lack of adequate commitment and support needed for the effective implementation of IFMIS in public financial management (Dorotinsky, 2003; Tsamenyi et al, 2006).

### **2.8.3 Technical Issues**

The implementation of IFMIS and other IT related public financial management information system requires a careful consideration of the technical issues. According to Touray and Salminen (2013), technical issues or factors concerns issues such as the infrastructure, the choice between customised system and on-the-shelve system, system configuration, security and privacy issues. Technical issues are very important to the effective implementation and use of the IFMIS and thus, must be addressed during the development stage of the reform programme. To this, Hendriks (2012) adds that the failure of many IFMIS projects can be traced to unresolved technical issues, especially, system integration or functionality.

#### ***2.8.3.1 System Functionality and Integration***

System functionality has been identified as one of the main reasons for failed implementation many IFMIS programs or projects. According to Miranda and Keefe (1998), many IFMIS programs have failed owing to system functionality had not been clearly specified from the

onset. For instance, Ethiopia initially faced challenges in its automation system and thus, slowed down the implementation of the Ethiopian IFMIS (Diamond & Khemani, 2006). The authors stressed further that, the IFMIS must be carefully designed to meet the needs of government or public agencies and functional requirements. Thus, they must be designed to the multitude of the distinctive public sector-oriented functions and organizational arrangements. Indeje and Zheng (2010) and Hendriks (2012) echo the significance of the system functionality and/or integration. For instance, according to Indeje and Zheng (2010), system functionality and integration.

#### ***2.8.3.2 Security and Privacy***

Security and privacy issues concerns such issues as computer security, confidentiality and privacy of data as well as authorisation (Layne & Lee, 2001; Smith & Jamieson, 2006). Security and privacy issues are considered as one of the critical issues to be taken into consideration in the implementation of IT programmes or projects due to the sensibility of information or data. To this Weerakkody and El-Haddadeh (2011), notes that underestimating this factor could lead to unauthorised access and manipulation of highly sensitive information. Chau, Atabakhsh, Zeng and Chen (2001) also add that, building a system that can handle access authorisation and authentication for shared information is critical for the security of information or data. It is therefore imperative, at the development and initial implementation stage, to build a system that provides a high level of data security. The provision of high data security would in turn enhance the integrity of the information generated from the system.

#### ***2.8.3.3 System Choice (Customised System or Off the Shelf System)***

The effective implementation of an IFMIS system in the public sector depends on the robustness and flexibility of the technological choice. To this, Peterson (2007) noted that it is important to make the right choice of technology to ensure effective IFMIS implementation. The system to be deployed must be one that meets the organisation's needs and functional

requirements and/or the financial management task the system is required to perform. Extant literature and evidence from countries that have implemented the IFMIS have identified two technology choice options – a customised system and an off the shelf (OTS) system (Rodin-Brown, 2008; Peterson, 2007; Diamond and Khemani, 2006; Hendriks, 2012).

Majority of the extant literature on the implementation of information system as well as country experience seems to suggest that OTS is the best system option (Rodin-Brown, 2008; Peterson, 2007). This notwithstanding, Diamond and Khemani (2006) argues that, the success of IFMIS implementation is not merely dependent on the choice of technology (that is, customised system or OTS) but rather the complexity of the system deployed.

#### ***2.8.3.4 IT Infrastructure***

The success or otherwise of any IT/IS project or programme depends largely on the availability and access of good IT infrastructure. The findings of studies conducted by Indahwati and Afiah (2014), and Soja (2008) confirm this assertion. The findings of their study revealed that the state of IT development or infrastructure is one of the main factors or predictors of the quality of accounting information system. IFMIS is an integration of systems of all government institutions and thus requires internet connectivity to function appropriately. Turban and Volonino (2010) defined IT infrastructure to include hardware, software, processes, networks and users of the infrastructure.

The importance of an effective and efficient IT infrastructure in the implementation of IFMIS in the public sector is further accentuated in the studies of (Gichoya, 2005; Hussein, Karim, & Selamat, 2007; Krishna & Walsham, 2005). For instance, Gichoya (2005) note specifically that, most IT related programmes have failed to deliver their intended outcomes due to the ineffective and sometimes non-availability of effective IT infrastructure to support these programmes. This notwithstanding, Cernakova (2014) notes that, the level of ICT adoption and

infrastructural development in the public sector is relatively high in larger municipalities that, to some extent, are financially autonomous from the central government. This thus suggests that relatively larger district assemblies may be relatively better positioned or prepared to implement IT based programmes or projects.

#### **2.8.4 Legal/Legislative Issues**

The implementation of IFMIS affects all public financial management practices and/or processes. To this end, Hendriks (2012) argues that, there is the need to develop or formulate appropriate legislative framework to provide the needed legal impetus for the IFMIS programme. Eriksson and Goldkuhl (2013) also highlighted the relative significance of an appropriate legislation for the implementation of an IT based reform programme in the public sector. Eriksson and Goldkuhl (2013) argue that appropriate regulation or legislation is a necessary precondition or fundamental to the success of any IT related programme in the public sector.

According to Diamond and Khemani (2006), the formulation of the legislative framework must precede the eventual implementation of the IFMIS programme in the public sector. This view is consistent with the views of (Peterson, 2007). They argued that, the formulation of the appropriate legal framework would ensure smooth and uninterrupted implementation of the IFMIS programme. Touray and Salminen (2013), and Proenza (2006) note that, the effective implementation of most IT related programmes are thwarted by inadequate laws and regulations in developing countries.

#### **2.8.5 Funding**

The importance of funding or financial resources in the implementation of IFMIS cannot be overemphasised. IFMIS is a complex system that require the acquisition of computers, improving IT infrastructure, training of personnel and the acquisition of other facilities. The

effective implementation of IFMIS in the public sector thus require constant and timely provision of adequate financial resources (Hashim, 2010). The significance of finance or funding in the implementation of IT based projects or programmes in the public sector highlighted by Heeks (2002). According to Heeks (2002), as cited in Maumbe, Owei and Alexander (2008), about 35% of all IT based reform programmes totally fail because of the inability of the various government to raise the needed or adequate resources needed for the effective implementation of such reform programmes.

## **2.9 Accountability Issues in the Implementation of IFMIS**

This section presents a review of literature on the accountability issues in the implementation of IFMIS. The section presents the review of extant literature on the concept of accountability as well as the dimensions of accountability.

### **2.9.1 The Concept of Accountability**

Despite the importance of accountability in governance, there is no common or widely accepted definition for accountability. Thus, accountability has been conceptualized or defined severally by different authors in the accountability literature. For instance, Pollitt (2003) defines accountability as the communicative interaction between an accountant and accountee in which the accountant's actions and inactions are evaluated by the accountee. Dunn (1999) on the other hand defines accountability as the process by which actors provide reasons for their actions against the backdrop of possible consequences. The consequence could be either positive or negative.

The communicative interaction suggests the presence or existence of relationships between the accountors and the accountees. These relationships, according to Pollitt (2003) could either be formal or informal relationships. The author stressed further that accountability is initially hinges on relatively formalized relationships. The formalized relationships will thus distinguish

accountability relationships from all other forms of communicative interactions between and among public agencies or institutions.

From the foregoing, accountability could be seen as a means or process whereby people or institutions charged with responsibility, by a superior authority, justifies its actions and inactions to that superior authority. The superior authority in turn evaluates the conducts of these persons or agencies and applies appropriate sanctions or rewards. Mulgan (2003) and Bovens (2007) argue that accountability consists of three main phases – information phase, debating phase and the sanctioning phase.

The information phase, according to Mulgan (2003) and Bovens (2007), is the first phase of the accountability process. At this phase of the accountability process, the agent, known as the accountor, presents detailed account of actions and inactions to the superior authority, known as the accountee. Thus, the accountor renders account for the discharge of their responsibilities. This phase of the accountability process is very critical. The information phase of the accountability process provides an avenue for the accountee to appreciate the conduct or behaviour of the accountor(s).

The second phase of the accountability process is the debating phase. At this phase of the accountability process, the accountee may ask for more information, from the accountor, to facilitate the appreciation or evaluation of the conduct or accounts of the accountor (Mulgan, 2003). Thus, at the debating phase of the accountability process, the accountee makes effort to gain understanding of the conduct and the reasons driving the behaviour of the accountor. Actual evaluation of the behaviour or conducts of the accountor takes place at this phase of the accountability process.

The sanctioning phase is the third phase of the accountability process. At the sanctioning or consequence phase of the accountability process, the accountee concludes the evaluation of the

conduct or behaviour of the accountant. The accountee, after the evaluation of the actions and inactions of the accountant, prescribes appropriate sanctions. These sanctions, according to Hood, James and Scott (2000), the sanctions vary from disapproval to tightened regulations, fines, discharge of management or even termination of organisation.

### **2.9.2 Dimensions of Accountability**

Schillemans (2008) notes that, the institutional arrangements of public institutions or organisations depict or is a demonstration of diverse accountability arrangements. Several authors have however identified a plethora of accountability dimensions. For instance, Romzek (2000) identified political, hierarchical, professional and legal accountability. Other authors including Mulgan (2003), categorised the dimensions of accountability based on or according to the typology of relationships between accountors and accountees. The authors identified vertical and horizontal relationships between or among public institutions. However, beyond the vertical and horizontal accountability relationships, a third dimension, diagonal accountability relationship, has been identified in literature.

#### ***2.9.2.1 Vertical Accountability***

The vertical accountability, unlike the horizontal accountability is a hierarchical accountability relationship (Bovens, 2007; Schillemans, 2010). This is the traditional accountability relationship that exists between the government or state institutions and the citizens of the country (Goetz & Jenkins, 2010). The citizens demand accountability from the state or public officials through elections and other formal processes. The vertical accountability relationship is a direct form of accountability relationship. Top-down and bottom-up communicative interactions characterise the vertical accountability relationships (Bovens, 2007; Goetz & Jenkins, 2010). This thus suggests that vertical accountability relationships could be evidenced or established between or among several public institutions at different hierarchical levels.

### ***2.9.2.2 Horizontal Accountability***

The horizontal accountability is associated with the studies of O'Donnell (2003; 1998). The author argued that accountability does not only run vertically, but also horizontal. The horizontal accountability according to Kenney (2003) is a non-hierarchical accountability relationship. This type of accountability relationship exists between or among organisations or institutions with relatively the same level of autonomy or authority (Schillemans, 2010). For instance the accountability relationships that may exist between or among public agencies, department or ministries. O'Donnell (2003) argues that, horizontal accountability relationships exist between or among similar constitutional powers of the state.

In a horizontal accountability relationship, the social distance between actors or agencies are reduced or non-existent. There is the presence of a stronger bond of trust between or among the accountors and accountees (Kenney, 2003). The stronger bond results from repeated dialogue between the accountors and accountees.

### ***2.9.2.3 Diagonal Accountability***

Beyond the vertical and horizontal accountability relationships, another form or dimension of accountability relationship identified in literature is diagonal accountability relationship. The diagonal accountability is lays in-between the vertical and horizontal accountability relationships. The diagonal accountability relationship combine elements of both the vertical and horizontal accountability relationships (Goetz & Jenkins, 2010). This dimension of accountability relationship, according to a 2008 Department for International Development (DFID) practice paper, bypasses formal systems or channels to demand accountability. Thus, with diagonal accountability relationship, stakeholders 'go behind' state or formal agencies to demand accountability directly from accountors. The diagonal accountability relationship emphasises fairness of outcomes and not procedural meticulousness.

## 2.10 Chapter Summary

This chapter was dedicated to the review of extant literature on public sector financial management reforms. The extant literature suggests that most governments, especially in developing countries have embarked on a plethora of public sector reforms under different labels. A synthesis of extant literature on governance and public financial management indicates that the motivation for the adoption, implementation of the numerous public sector financial management reforms, especially in developing countries, can be classified under two broad factors – internal factors and external factors.

The review of the extant literature indicates that the history of Ghana's public sector financial management reform can be traced to the days of the ERPs in the mid-1970s. Notable financial management reform programmes include the MTEF and the BPEMS. The seeming failure of the BPEMS led to the development and introduction of the GIFMIS. The GIFMIS, like the BPEMS, is an integrated financial management reform programme. The introduction of the GIFMIS in Ghana's public financial management is intended to enhance efficiency and timely provision of information for decision-making.

Effective implementation has been identified, in literature, as the panacea to the realisation of the intended benefits from the introduction of IFMIS in public financial management. Successful or effective implementation of IFMIS and other IT related reform programmes in public financial management requires careful consideration of issues or factors that affect the implementation IFMIS and other IT related projects or programmes. These issues or factors are broadly classified as political factors, organisational factors, technical factors as well as resources or funding.

## CHAPTER THREE

### THEORETICAL FRAMEWORK

#### 3.1 Introduction

This study examines the implementation of IFMIS in Ghana. The study explores the nature and motivations for the implementation of GIFMIS, the implementation process as well as the accountability issues emerging in the implementation of IFMIS in Ghana. This chapter reviews extant theories or theoretical frameworks that can best provide explanations for the outcome or findings of the study. This chapter is organised into three sections. The first section considers or reviews theories that seek to explain the motivations for the adoption of public financial management reforms. The second section of this chapter focuses on the review of theories that seeks to explain IT/IS implementation issues. A theoretical framework of adopted theories for the study is provided in the third section.

#### 3.2 Theories on Motivations for Adoption of Public Reform Programmes

This section of the chapter presents a review of possible theories that help the researcher provide possible explanations for the drivers or motivations for the adoption and development public sector financial management reform programmes.

Governments in developing countries, and for that matter Africa, have embarked on quite a number of public sector financial management reform programmes. These numerous public financial management reform programmes have been initiated or introduced in response to a plethora of factors or forces (Pretorius & Pretorius, 2008; Dorotinsky, 2008; Schacter, 2000; Simpson, 2012; Kiilu & Ngugi, 2014). This section of the chapter attempts to explore some of the extant theories that can explain the motivations for the adoption of public financial management reform programmes. There are plethora of theories or theoretical frameworks that explain the motivations for adoption of public financial management reform programmes.

Below is a detailed evaluation of some of the theories that can best explain the motivation(s) for the adoption of public financial management reform programmes in developing countries.

### **3.2.1 Institutional Theory**

The institutional theory attempts to address the question of why organisations act or behave the way they behave. Thus, it attempts to provide explanation(s) for organisational behaviour or actions. To this Dacin, Goodstein and Scott (2002), note that institutional theory has gained much prominence as a potent theory in the explanation of individual as well as organisational action. The fundamental principle or concept underlying the institutional theory according to Miles (2012) and Scott (2008) is that organisational structures and processes acquire meaning and stability in their own right rather than their effectiveness and efficiency in the pursuit of desired goals or objectives. A considerable variety of organisational forms characterise organisations or institutions in the initial stages of the organisational life cycle (Miles, 2012). However, homogeneity in organisational structures takes place over time.

According to the institutional theory, institutions are very critical or important constituents of the environment. In the environment, institutions exercise constraining influences, known as isomorphism, over individual organisations within the environment (Deegan, 2000; DiMaggio & Powell, 1983). These constraining influences in the environment coerces organisations to take up similar practices or behaviours of other organisations that face similar environmental constraints or condition. Scott (1995) herein defined institutions as “regulative, normative, cognitive structures and activities that provide stability and meaning for social behaviour”.

Institutions exert three main forms of isomorphic force on organisations within a given environment – coercive, normative and mimetic (Scott, 1995; 2008; Dacin et al, 2002). The coercive isomorphism refers to the pressure(s) from entities that have resources on which other organisations depend. The normative isomorphism on the other hand refers to the pressure(s)

of adhering to established norms and practices as well as professional standards. Organisations tend to follow or adhere to socially accepted norms and practices to gain and sustain legitimacy. The mimetic isomorphism refers to imitating other successful organisations especially when organisations are uncertain about what to do.

This notwithstanding, Miles (2012) argues that, institutionalised activities occur due to influences on three levels – individual, organisational and inter-organisational. At the individual level, managers, consciously or unconsciously, follow norms, customs, habits and traditions.

Despite the relevance of the institutional theory in explaining individual and organisational behaviour(s), it been subjected to criticisms. For instance, Phillips, Lawrence and Hardy (2004) argue that the institutional theory tends to overly emphasise the significance of the effects of institutionalisation rather than the processes through which organisations become institutionalised. They argued further that, any insignificant change in organisational process or behaviour are treated as institutional. To this, Peters (2000) and Suddaby (2010) add that the institutional theory or proponents of the theory have inappropriately measured the concept of institutions. According to Suddaby (2010), proponents treat organisations as passive members of the environment.

Notwithstanding the numerous criticisms, the institutional theory has been employed in quite a number of researches or studies (Hoque, 2005; Collier, 2001; Greenwood & Hinings, 1996; Guthrie, Olson, & Humphrey, 1999). For instance, Hoque (2005) employed institutional theory to explain the motivations for the design of management and accounting systems in the public sector. Collier (2001) also applied the institutional theory to gain an understanding of the context, process and consequences of the introduction of devolved budgeting systems to an organisation.

### 3.2.2 Legitimacy Theory

The legitimacy theory is one of the most cited or used theories to explain the behaviour of organisations in a given environment. The legitimacy theory posits that, there exist a social contract between organisations and the environments within which they operate. Suchman (1995) notes that “legitimacy is a generalised perception or assumptions that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.” Thus, organisations or entities and individuals act in certain ways in order to gain acceptance in a particular social setting.

Benbasat and Zmud (2003) identified several dimensions of the legitimacy theory. The authors argued that IS has recorded significant successes in achieving socio political legitimacy. The socio political legitimacy, according to the authors, comprises both moral and regulatory legitimacy. The authors on the other hand argued however that IT or IS has not been able to achieve cognitive legitimacy. To this Suchman (1995) argued that, cognitive legitimacy is beyond the IT or IS related studies. According to Suchman (1995), cognitive legitimacy is “beyond the reach of all but the most fortunate managers”. Robey (2003) share a similar view. According to Robey (2003) and Suchman (1995), it is important for IS to pursue what Suchman (1995) refer to as “pragmatic legitimacy”. Pragmatic legitimacy focuses on the conscious attempts aimed at achieving legitimacy in the eyes of the organisation’s immediate audiences (Suchman, 1995).

The legitimacy theory can be used to explain the motivations for the adoption and implementation of IFMIS in public financial management. The adoption and implementation of IFMIS in public financial management system could be seen as a deliberate attempt aimed at gaining or attaining legitimacy among the citizenry and other development partners. Although the foregoing seem to suggest that legitimacy theory could explain the motivations for the adoption and implementation of IT related programmes, there seem to be little

application of the legitimacy theory in explaining the motivations for the implementation of IFMIS in public financial management.

### **3.3 Theories on Implementation Issues**

This section of the chapter explores or reviews theories that seek to provide explanations for issues affecting the implementation of public financial management reform programmes. The author identifies and reviews extant theories that are capable of providing explanations for the factors or issues that facilitates or militates against the effective implementation public financial management reform programmes. The identified theories are presented below.

#### **3.3.1 Force-Field Theory**

The field theory was initially characterised or developed in the physical sciences to analyse phenomena. The field theory attempts to analyse causal relations and apply scientific constructs (Bozak, 2003).

In 1951, Lewin expanded and applied the force field theory in a social research. The force field theory has since been used widely in planning and implementing change or reform programmes in organisations or institutions. The Kurt Lewin's force field theory suggests that certain factors or forces either within or out of the environment motivate human actions and/or behaviour. The theory provides a comprehensive view of the several or different forces that affect organisational and/or policy change(s). The theory attempts to outline or identify the forces/factors that serves drivers and obstacles/restraints to policy or organisational change. Thus, the theory identifies two dynamic forces that have an impact on change processes in an environment. The force could be either a driving force or a constraint/static force. The driving forces encourage the changes to occur whereas the static forces attempt to maintain the status quo and hence, pose as restraining force (Bozak, 2003).

The driving force may emanate from forces or factors in the external environment (Riordan & Riordan, 1993). The driving force may also be because of internal/inherent problems within an existing system or the need for improvements in the existing system. The static or restraining forces act as barriers that prevent intended changes from taking place or occurring. The theory stresses that, for a successful change to occur, the driving forces must be enforced or strengthened whereas the constraining forces, be eliminated or reduced to have minimal or no effect on the change.

Critics of the force field theory argued that the theory lacks the assumptions and propositions from which empirical hypotheses can be formulated (Gold, 1992). The author thus, described it as an approach other than a theory. Diamond (1992) also argued that, the theory requires knowledge of all forces existing and acting mutually dependently on individuals within the environment.

These notwithstanding, the force field theory could be applied to explain implementation issues of the IFMIS and other public financial management reform programmes in developing countries. The failure of majority of the public financial management reform programmes, especially in developing countries, have been attributed to the inability to address implementation issues. IFMIS is a complex integrated computerised system and thus requires sustained commitment and adequate resources to facilitate effective implementation of the programme. Thus, the factors that will serve as enablers to facilitate the effective implementation of the IFMIS programme include political and administrative support as well as the availability of adequate resources. The absence of these identified factors could militate against the effective implementation of the IFMIS programme.

### 3.3.2 Structuration Theory

Giddens' structuration theory is based on the analysis of the interrelationships between social structures and agents in the creation and reproduction of social systems. The theory posits that individuals are members of social structures and those structures support continued performance of routines or tasks over time. According to Giddens (1976), the structural characteristics of social systems are functions of the individual practices and the outcomes of those practices. According to Miles (2012), the structuration theory seeks to achieve two main objectives – examine the extent to which individual actions and practices create and shape social structures and the extent to which social structures in turn affect or shape, constrain and enable the actions or practices of individuals. Giddens (1984) refers to this as “duality of structure and action”. Thus, social structures are the results or outcomes of the actions or inactions of individuals and individual actions or inactions are in turn the result of existing social structures. This means that existing social structure(s) affect and is affected by the behaviour of individuals. Giddens defined social structures to include the rules and resources that affect each other in the replication of social structures. The recurrence of social structures instantiate these social structures (Miles, 2012).

Giddens (1984) identified three types of social structures – signification, domination and legitimisation. Signification concerns the effective use of language whereas domination concerns power or control over material and/or resources. Legitimation on the other hand concerns the appropriateness of behaviours, which is determined by moral rules. To this Miles (2012) notes that there exist three main forms of interactions in the social systems. These interactions are understandable communication, exercise of power and sanctioning of one another. These three identified forms of interactions interact with the three identified social structures. That is, interpretive scheme interact signification and language, facility interacts domination with power and norms links legitimisation and sanction.

According to this theory, individuals or people rely on social structures to help shape their behaviour. This behaviour over time reinforces social structures. Miles (2012) notes however that, people access social structures in different ways, depending on their positions or statuses in these social structures. An individual's position or status in a social structure could enable or constrain the way individuals behave.

Several theoretical frameworks have been used or applied to measure and/or explain the adoption, implementation of information technology (IT). To this, Bwalya, Du Plessis and Rensleigh (2014) note that context has been one of the main determinants of the suitable model to use. Despite the numerous criticisms, Giddens' structuration theory according to Bryant and Jary (1991) the theory is one of the important sociological theories. For instance, Macintosh and Baker (2002) evaluated the application of the structuration theory in management accounting research. Macintosh and Baker (2002) concluded that the structuration theory is the most efficient, focused, informative, integrative, way to analyse how accounting systems are implicated in the construction, maintenance, and changes of the social order of an organization, than many frameworks used in previous studies.

In an attempt to understand the organisational perspective in the implementation of IFMIS in Kenya, Wanyama and Zheng (2010) borrowed concepts from the structuration theory. They also used the structuration theory to explain the meanings, norms and issues of power experienced during the implementation of the IFMIS. Bwalya et al (2014) on the other hand applied the structuration theory to evaluate factors that influenced the adoption of e-governance systems in Zambia. These highlight the relative suitability of the structuration theory to evaluate the development and the implementation of GIFMIS in Ghana's public financial management.

### 3.3.3 Technology Acceptance Model

The central theme of the technology acceptance model (TAM), according to Chuttur (2009) is that, causal linkages flow in a sequence of beliefs, attitudes, intentions and behaviours. The TAM, developed by Fred Davis and Richard Bagozzi, attempts to explain how users or intended users come to accept and use a new technology. To this, Davis (1989) and Venkatesh et al (2003) identified perceived usefulness and perceived ease of use as the two fundamental factors that significantly influence IT acceptance by users or intended users. Davis (1989) defined perceived usefulness as “the degree to which a person believes that using a particular system would enhance his or her job”. Davis (1989) also defined perceived ease of use as “the degree to which a person believes that using a particular system would be free from effort”. This seems to suggest that individuals or user of IT system are more inclined to accepting and/or using a new IT system if only it improves work processes or relevant to their work. Additionally, it is not only perceived usefulness that influence user attitudes, but also, the complexity or flexibility of the IT system (Davis, 1989; Lin, Fofanah, & Liang, 2011). Flexible IT system implies less or minimal amount of effort is required to use the system and hence a high probability of acceptability.

The TAM, though widely regarded as one of the important theories in explaining and predicting user attitude towards IT and information systems, has received its share of criticisms. For instance, Chuttur (2009) argued that the TAM tends to shift attention of researchers from important issues such as the implementation of the IT systems.

Notwithstanding the numerous criticisms of the TAM, it remains one single most extensively applied or used theory in IT or information systems studies or researches. The theory has been used extensively to explain and predict user’s acceptance of information technology, especially in private organisations. However, Lin et al (2011), and Gupta and Jana (2003) used the TAM to assess adoption of e-government initiatives in the public sector. The results of their studies

indicate that the fundamental constructs of the TAM theory have significant influences on user-intention towards e-government products.

### **3.3.4 Actor Network**

The actor network (ANT) proposes a socio-technical approach to the study of information systems (Walsham, 1997). According to Miles (2012), the theory examines how the characteristics of entities, human and nonhuman, are created and changed through their continual relations with other entities in their environment. The ANT posits that all entities (both human and non-human), through their relations with other entities in their environment, take form and acquire their unique features or characteristics. Thus, individual actors or actants can be considered to possess or mirrors the sum of the other small actors. To this Latour (2005), notes that, entities have their being, materiality or substance only through their relations with other entities.

Latour (1999) attempts to define key terminologies of the ANT. According to Latour (1999), the term “network” refers to the summation of the interactions and relations among other entities through various methods, into a local, practical, narrow focus. It refers to the transformations, translations or transduction among entities in relations or interactions with each other (Miles, 2012; Latour, 1999).

The ANT define actors to include both humans and non-humans. The interactions between or among the actors in an organisation or environment builds networks (Stanforth, 2006; Heeks & Stanforth, 2007). The actors build the network through a combination of both technical and social elements. Thus, the actors define the network of interrelationships between or among the actors. The theory thus attempts to provide explanations to how humans and non-humans (actors) come together to act as a coherent whole (system) and create meaning. The networks

that are built, according to Latour (2005), are transient and exist in constant making and remaking. Thus, interactions are iterative and occur recursively.

The actor-network theory has been criticised by various authors. For instance, Winner (1993) argued that the ANT is biased towards non-human actants. Savage (2009) also criticised the ANT for deviating from scientific research practices and methodologies. The ANT endorses the use of narrative and descriptive approach to observe actants in their natural environment. Other authors including Krarup and Blok (2011) argue that the ANT treats organisations as mere black boxes can be opened to provide detailed information or description about the actants or actors in a network.

These notwithstanding, the ANT has been employed in a plethora of studies to provide explanations to IS implementation issues (see Stanforth, 2006; Heeks & Stanforth, 2007; ). For instance Stanforth (2006) employed the ANT as a framework for understanding the processes of implementing e-government in developing countries. Heeks and Stanforth (2007) also draws on the ANT to provide perspectives used to provide explanations to the trajectory of an e-government case study.

### **3.4 Adopted Theories and Proposed Theoretical Framework**

The previous sections presented the review of extant theories that are capable of providing explanations for the outcome or findings of the study. The researcher reviewed and examined the suitability of the identified theories to providing explanations to the motivation(s) and the issues relating to the implementation of the IFMIS programme in Ghana. This section thus presents a discussion of the adopted theories to provide explanations for the outcome or findings of the study.

The theories adopted by the researcher, to provide explanations for the findings and conclusions of the study are the legitimacy theory and the force-field theory. It is important to

note that, the researcher did not impose the theories on the study. The researcher allowed the theories to emerge from the empirical material. That is, the adopted theories were those that emerged from the empirical material. The dominant theories that emerged from the study are the legitimacy theory and the force-field theory. In fact, the propositions and assumptions of the two theories are consistent with the findings and conclusions of the study.

The legitimacy theory could be applied in qualitative and/or interpretivist studies to provide an in-depth understanding of the motivations for the adoption and implementation of public financial management reform programmes, specifically, the IFMIS programme in Ghana. The legitimacy theory provides a broader perspective by promoting assumptions that are consistent with interpretivist studies. The legitimacy theory, although rarely used in public financial management reform studies, has the potential of providing the basis for the examination of the motivation(s) for the introduction and implementation of public financial management reform programmes.

The force-field theory on the other hand posits that forces or factors with the organisation's environment influence the actions or behaviours of organisations. These forces are grouped into two – motivating forces or factors and static or constraining factors. The force-field theory was originally developed to be used in physical sciences but Lewin (1951) expanded and applied the theory in social science studies. Unlike the legitimacy theory, the force-field theory has been applied in a myriad of interpretivist studies. Thus, the propositions or assumptions of the theory are consistent with the interpretivists' research paradigm. The theory poses as a useful theory in the examination of the issues affecting the implementation of public financial management reform programmes.

There seem to be little or no application of both legitimacy and force-field theories in public financial management reform studies. This notwithstanding, with respect to theory

complementarity, there is a conceptual evidence that supports the combination of the two theories to provide in-depth explanation of issues to the implementation of the IFMIS programme in Ghana. The introduction of public financial management reform programmes are motivated or driven by certain factors. These factors could either be internal or external factors. However, the intended benefits of these reform programmes could be attained through effective implementation of these reform programmes. The effective implementation of the public financial management reform programmes are affected by the implementation strategies and other factors that influences the implementation of these programmes.

The figure below (*figure 4.1*) presents the proposed theoretical framework of the study. The researcher developed the framework from the review of extant literature on the implementation of public financial management reform programmes as well as a review of theories capable of providing explanations for the findings and conclusions of the study.

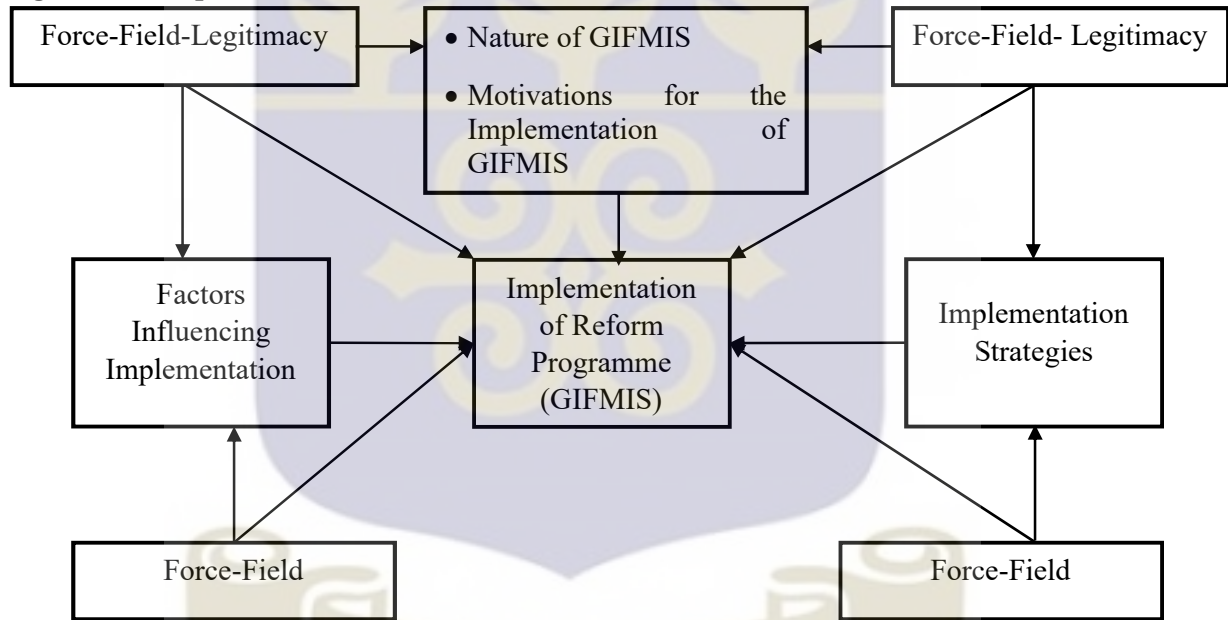
The study sought to examine the implementation of IFMIS, as a public financial management reform programme, in Ghana. literature on public management suggests that public sector financial management reform programmes in developing countries have been driven by two main factors or forces – internal factors/forces and external factors. The introduction of IFMIS in public financial management is intended to promote transparency and accountability, reduce corruption, enhance financial reporting and real time information sharing as well as promote effective budget formulation and implementation.

The extant literature seem to suggest that the realisation of the above intended benefits of introducing IFMIS in public financial management, to a large extent, depends on effective implementation of the IFMIS programme (see Short, 2003; Polidano, 2001). The framework below (*figure 4.1*) suggests that the IFMIS programme could be effectively implemented after considering certain key factors that influence the implementation of the IFMIS as well as the

deployment of effective implementation strategies. The critical factors to be considered in the implementation of IFMIS can be classified broadly into political factors, organisational factors, technical factors, funding as well as accountability issues in the implementation of the IFMIS programme.

The figure below (*figure 4.1*) also indicates that the legitimacy theory and the force field theory could be applied to provide explanations to the motivations for the introduction of IFMIS in Ghana as well as implementation. The direction(s) of the arrows in figure 4.1 indicates the issues that could be explained by the two theories.

**Figure 4.1: Proposed Theoretical Framework**



*Source: Researcher's Own Construct*

### 3.5 Chapter Summary

This chapter presented a review of theories capable of providing explanations for the findings of the study. The researcher presented a review of theories that could help provide explanations on the motivation(s) for the implementation of the GIFMIS programme as well as issues relating to the implementation of the programme. The researcher then presented a discussion

of adopted theories to achieve the objectives of the study. Finally, the researcher develops a theoretical framework for the study.



## **CHAPTER FOUR**

### **METHODOLOGY**

#### **4.1 Introduction**

This section describes the methods, techniques and/or procedures employed to achieve the objectives of the study. According to Bryman and Bell (2004), the methodology provides the framework or process for the conduct of the research or the study. The methodology is very important in any research as it provides the structured procedures that must be followed to attain reasoning and communication.

This chapter is organised into five sections. The first section of this chapter provides a discussion of research paradigms the researcher's paradigm. The second section of the chapter provides a discussion on the research design. The researcher provides justifications for the choice of the research design. The third and subsequent sections of the chapter focuses on the data gathering processes, the case description and the background of the respondents.

#### **4.2 Research Paradigm**

Patton (1990) defines a research paradigm as “a world view, a general perspective, and a way of breaking down the complexities of the real world”. Guba and Lincoln (1994) also describe a paradigm as the basic set of beliefs that guides action. It is the way of looking at the social world. Paradigms are made of philosophical assumptions that guide and direct thoughts and action (Krauss, 2005). Paradigms thus define what is important and/or reasonable to the researcher. Paradigms also define what is legitimate to the researcher. Krauss (2005), and Mackenzie and Knipe (2006) argue that, it is the research paradigm of the researcher that guides the whole research process, and not the research method. Thus, research paradigms dictate the appropriate methodology to employ, the kind/type of data to use and the data analysis technique to employ.

Literature on research methodology identifies three main categories of paradigms currently operating in the social sciences: positivism/post-positivism; interpretivism/constructivism and critical theory (Mackenzie & Knipe, 2006; Sparkes, 1992). The identified paradigms have distinct set of assumptions and purposes that are incommensurable with each other. This notwithstanding, Scheurich (1997) and Smith (1989) note that, the distinction between the three paradigms are not so clear, both in practice and theory.

The study was conducted from the interpretivist lens or viewpoint. The interpretivism or constructivism research paradigm hinges on the basic tenet that, there exist multiple realities. Proponents of this paradigm argue that, these multiple realities are socially constructed and hence, are influenced by history and culture. According to Mackenzie and Knipe (2006), interpretivists adopt a relativist ontology. The provision of an understanding of, and/or the reconstruction of the world, is the aim of interpretivists. Interpretivists/constructivists emphasise the use of qualitative research methodologies (Mackenzie & Knipe, 2006).

#### **4.3 Research Design and Approach**

The research design is the conceived plan and structure of an investigation that enables the researcher find or obtain answers to research questions (Kerlinger, 1986). The research design provides the overall operational framework for the study. It specifies the type of data or information to be used and the sources of the data or information. Jones et al (2004) notes that, the research design helps the research obtain answers to the initial research questions as unambiguously as possible. Creswell (2009) and Jones et al (2004) identify three levels or typologies of research approach – qualitative, quantitative and mixed methods.

This study adopted the qualitative approach to research. The qualitative approach to research is an ideal approach to explore a phenomenon, individuals/subjects and the meaning they ascribe to social or human problem (Creswell, 2009). Mertens (2007) adds that, qualitative

studies provide details of the uniqueness of cases or phenomena. This approach, according to Creswell (2009), and Mertens (2007), allows the researcher to gain an in-depth knowledge about a problem or a phenomenon. The researcher views the implementation of public financial management reform programmes as complex phenomena hence, the qualitative research approach is an ideal approach to adopt.

Within the qualitative research approach, the researcher adopted the case study approach to achieve the objectives of the study. According to the Ahrens and Chapman (2006), the case study approach is a dominant approach in the qualitative researches in accounting. The authors further add that, the qualitative case study approach serves as an effective means of gaining in-depth understanding of organisational processes and accounting practices. The main objective of the study is to examine the implementation of the GIFMIS programme. The adoption of the qualitative case study approach helped the researcher gain an understanding of the motivation for the adoption of the IFMIS as well as the implementation processes and strategies. Thus, the case study approach helped the researcher gain in-depth understanding of the motivations for the adoption of the GIFMIS programme as well as implementation strategies and processes.

#### **4.4 Overview of Case**

Ghana, like many other developing countries, have embarked on a plethora public financial management reform programmes. These public financial management reform programmes have been introduced with the intention of promoting efficiency in the management of public resources. The history of Ghana's public financial management reforms can be traced to the emergence of the Economic Reform Programmes (ERPs) in the 1980s. The ERPs were introduced to reduce Ghana's rising debts and control government or public expenditure. A plethora of public financial management reform programmes were introduced during the first phase of the ERPs and notable amongst them were – the economic management support (EMS), the public investment programme (PIP), the integrated personnel and payroll database project

(IPPDP), the budget improvement working group (BIWG) as well as the expenditure tracking system (EXTRACON).

The EMS was introduced in 1991 to help improve public sector budgeting, expenditure reporting and tax administration. The PIP was also introduced to address issues of public capital expenditure. This was introduced to enable the government to effectively and efficiently manage public infrastructure. The BIWG and the EXTRACON, on the other hand, were introduced to enhance budget formulation and implementation. However Oduro (2003), and Roberts and Andrews (2005) note that the piecemeal nature of these financial reform programmes militated against addressing the failures of the previous reform programmes. To this, in 1999 Ghana launched a multi-faceted PUFMARP aimed at introducing comprehensive public financial management reforms in public budget and expenditure processes. This included a computerized financial information system known as the BPEMS. To this, Halligan (2007) notes that, most of the public financial management reform programmes introduced in the mid-2000s have focused on integrating government or financial management systems. The BPEMS focused on reforming budget formulation through an integrated computerised system. During the early stages of the reform, the BPEMS suffered slow growth compared to other reform programmes, notably the MTEF (Hendriks, 2012). This resulted in significant accounting and reporting problems. The program encountered several difficulties and thus, the implementation failed according to plan.

Ghana, in 2009, introduced another public financial management reform programme known as GIFMIS. GIFMIS is a computerised integrated financial management system. The GIFMIS is intended to take over public financial management, that is, from budget formulation to accounting for the use of public resources.

#### **4.4.1 Population of the Study**

Research population refers to or represents all the cases of people, organisations or institutions of interest to the researcher (Neumann, 2007). That is, the population possess certain characteristics or information relevant to the research or researcher. The GIFMIS is intended to be used or implemented by all government agencies or institutions that source funds from the consolidated fund. These include all MMDAs and MDAs at the regional and district levels. The target population for this study includes all key stakeholders involved in the implementation of the GIFMIS programme. Thus, personnel from the Controller and Accountant General Department (specifically, personnel from the GIFMIS secretariat), Ministry of Finance and Economic Planning (MOFEP), as well as personnel from other government agencies.

#### **4.4.2 Sampling**

Sampling is the process of selecting a sample or subsets of the target population for purposes of making observations or making statistical inferences about the population (Neuman, 2007). Sampling is an important activity, especially, where it is relatively difficult or not feasible to reach all the units or subjects within the population of interest. It involves selecting units ( for example, individuals, organisations) from the population of interest so that by studying the sample the researcher can fairly generalise the results back to the population from which the units were selected or chosen from.

There are two main types of sampling techniques – probability and non-probability sampling. With the probability sampling technique, all units within the population of interest have equal chance of selection. However, units within the population of interest do not have equal chance of selection where non-probability sampling technique(s) is employed.

A non-probability sampling technique known as the purposive sampling technique was employed for the purposes of achieving the objectives of the study. Purposive sampling involves sampling units within the population of interest with specific purpose in mind. That is, purposive sampling technique is ideal where the researcher has one or more specific defined groups that the researcher seeks. According to Neuman (2007), purposive sampling can be very useful in situations where the researcher needs to reach specific identified units or groups within the population of interest. Saunders, Lewis and Thornhill (2009) argue that the purposive sampling technique is ideal and effective when one needs to study a subject or phenomena where the knowledge of experts within the organisation or subject matter being studied is critical. The study examines the implementation of GIFMIS in Ghana's public sector and thus, the views or opinions of knowledgeable experts are important to achieving the objectives of the study. The knowledgeable experts, herein, refers to the various institutions and personnel directly or indirectly involved in the implementation of the programme. The views of experts or personnel who have been part of the implementation of previous public financial management reforms programmes were also critical to the achievement of the objectives of the study.

#### **4.5 Data Collection Process**

This section of the chapter provides detailed account of the data collection processes. This section outlines the sources of data, data collection instrument and pre-testing, the background and selection of the respondents, and the reasons for the selection of the respondents.

##### **4.5.1 Sources of Data and Data Collection Instrument**

The study used both primary and secondary data. The primary data were gathered through personal interviews. Interviews have a high response rate and enable the researcher to generate large volumes of data compared to closed-ended questionnaires (Neuman, 2007). Glazier and

Powell (1992) demonstrate that, interviews retain the flexibility to probe further unexpected issues as they arise during the data gathering stage.

The researcher gathered data through semi-structured interviews. Neumann (2007) argues that the semi-structured interview is well suited for exploring attitudes, values, beliefs and motives of individuals and organisations, or a phenomenon. Qu and Dumay (2011) share a similar view. For instance, according to Qu and Dumay (2011), semi-structured interviews are effective data gathering tools that allow researchers to understand issues or phenomena in their social context. Kvale and Brinkmann (2009) also note that, the semi-structured interview is the most effective and convenient means of gathering data because it is flexible, accessible and most importantly, it is capable of disclosing important and often hidden information about complex social phenomena. Semi-structured interviews allow respondents to express themselves in languages they use and are comfortable with (Qu & Dumay, 2011). This helped the researcher understand how respondents perceive and understand issues relating to the nature and implementation of the GIFMIS programme.

The objective of the study is to examine the GIFMIS implementation processes and thus the researcher sought to understand, from the perspectives of the key actors, the processes and strategies adopted in the implementation of the IFMIS in Ghana. The data collection instrument, for the interviews, was organized into particular themes that emerged from the review of literature. The themes helped direct the conversation with respondents to topical issues that were of interest to the researcher (see appendix for interview guide).

The secondary data were gathered from reports, presentations/documents on the GIFMIS implementation. The data collection process spanned a period of seven (7) months, from September 2014 to March 2015.

#### **4.5.2 Pre-Testing of Data Collection Instrument**

According to Neumann (2007), pre-testing data collection instrument enables the researcher to fine-tune or make necessary corrections on the data collection instrument. Jones et al (2004) also adds that, pre-testing of data collection instrument increases response rate and enhances the quality of responses.

In order to gain content validity, the researcher pre-tested the data collection instrument. The initial data collection instrument (interview guide) was pre-tested by administering it on a respondent from the MOFEP. The respondent made valuable contributions that led to the modification of the initial data collection instrument. The pre-testing of the data collection instrument enabled the researcher to organise the instrument to meet the objectives of the study (see appendix for the modified interview guide).

#### **4.5.3 Background and Selection of Respondents**

This section of the chapter presents details of the background of the respondents as well the selection criteria and process. The researcher collected background information of the respondents to assess their suitability for the study. Thus, the purpose or objectives of the study played significant roles in the selection of the respondents. The information of interest to the researcher included the position of the respondent, respondents' role in the implementation of the GIFMIS programme as well as the respondents' years of experience. The background information of the respondents is very important because it provides the assurance of the appropriateness of the respondents interviewed and lends credibility to the quality of data gathered by the researcher.

The researcher interviewed personnel from the MOFEP, personnel from CAGD (GIFMIS secretariat) as well as other external consultants involved in the implementation of the GIFMIS programme. The researcher selected the respondents, first based on their years of experience

at the various ministries and government agencies (*See table below for the years of experience of respondents*). As indicated in the table, apart from the external consultant, all the respondents have considerable years of experience at their respective agencies. The respondents selected, apart from the external consultant have experienced or been involved in the implementation of previous public financial management reform programmes. The researcher selected respondents who were involved, directly or indirectly, in the implementation of previous public financial management reform programmes. The second criteria used by the researcher in selecting respondents is the person's involvement in the implementation of the GIFMIS programme (*See table below for the roles of the various respondents in the implementation of the GIFMIS programme*). The researcher intended to interview the director of the project secretariat. However, all attempts made by the researcher proved futile. The researcher thus selected respondents based on their availability to provide needed information to achieve the objectives of the study.

Interviews conducted during the data gathering stage, on average, lasted between one hour and three and a half hours per session. The details of the duration of the interviews with respondents are presented in the table below. It is important to note that there were more than one interview sessions for some of the respondents. This helped the researcher secure clarification on issues raised in previous interview sessions. This also afforded the researcher the opportunity to conform some of the earlier assertions of the respondents and test for consistencies in the information provided by these respondents.

The table below presents the background information of the respondents

**Table 4.1: Background of Respondents**

<b>CODE</b>	<b>Position</b>	<b>Years of Experience</b>	<b>Interview Duration</b>
<b>PA</b>	Project Administrator	Over 15 years	2 Hours, 16 Minutes
<b>APA</b>	Assistant Project Administrator	Over 10 years	3 Hours, 18 Minutes
<b>PAO</b>	Project Accountant/Oracle Implementation Expert	Over 20 years	1 Hour, 42 Minutes
<b>**TC</b>	Technical Consultant	***2 years	1 Hour, 23 Minutes
<b>IOE</b>	Internal Oracle Expert	Over 10 years	54 Minutes
<b>BO</b>	Budget Officer, MOFEP	Over 10 years	1 Hour, 2 Minutes

\*\*Foreign consultant

\*\*\*Duration on GIFMIS Project

Apart from the interviews, the researcher relied on information contained in publicly available information. These publicly available information, used by the researcher, included the PEFA and presentations from meetings with other stakeholders involved in the implementation of the programme. The publicly available documents provided supplementary information to that gathered from the interviews.

#### **4.5.4 Ethical Considerations**

The researcher identified and addressed all ethical issues relating to the collection of data to achieve the objectives of the study. The researcher sought the consent of the various respondents. The objectives of the study were communicated to the respondents before each interview. The express consent of the respondents were necessary in order to avoid coercing the respondents into the study. In addition, the researcher assured the respondents of their anonymity and thus, as indicated in the table below, codes are used to mask the identity of the respondents.

#### **4.6 Data Analysis**

Data analysis is making sense out of data gathered from sources. According to Patton (2002), data analysis clarifies what would have been most important to study if we had known. According to LeCompte (2010), data analysis is the transformation of data into research results. Researchers have proposed a number of qualitative data analysis approaches or techniques. For instance, LeCompte (2010) identified five major processes in qualitative data analyses. The five processes include tidying up; finding items; creating stable sets of items; creating patterns and assembling structures. Miles and Huberman (1984) consider data analysis to consist of three concurrent flow of activities. The concurrent activities in data analysis as identified by Miles and Huberman (1984) are data reduction; data display and conclusion.

Data reduction involves selecting, focusing, simplifying, abstracting and transforming raw data that appear in edited notes. This occurs throughout the data gathering stage of the research. At this stage, the large volumes of data gathered or collected summarised in such a way that conclusions can be drawn and verified.

The next flow of the qualitative data analysis according to Miles and Huberman (1984) is data display. Data display concerns the organisation and/or assembly of information that enables

the researcher to draw conclusions. Data display provides understanding of what is happening and stimulates the conduct of further analysis (Miles & Huberman, 1984).

The final activity of the concurrent flow of data analysis activities involves drawing conclusions or making meanings from the reduced and displayed data. In drawing conclusions, patterns, regularities, explanations causal flows, propositions and possible configurations must be noted and taken into consideration (Miles & Huberman, 1984).

The data gathered for the study was qualitatively analysed in accordance with the concurrent approaches to qualitative data analysis prescribed by Miles and Huberman. The Miles and Huberman approach to qualitative data analysis has been adopted and applied in wide range of qualitative studies.

The data gathered from the interviews were, first organised into themes according to the objectives of the study. The data were then analysed according to the dominant themes that emerged from the empirical materials or evidence. The dominant themes that emerged from the data process were the nature and background of the GIFMIS programme, the motivations for the implementation of the programme as well as the accountability relationships between and among the various actors involved in the implementation of the programme. The analyses and discussion of the results were done along these identified themes.

#### **4.7 Chapter Summary**

This chapter presented detailed methodology of the study. A discussion of the research approach as well as the researcher's philosophical perspective were presented in this chapter. The chapter also presented a detailed discussion of the data collection process and analysis. In the data collection process, the researcher discussed issues relating to the sources of data, sampling technique, background information of and the process of selecting respondents.

## CHAPTER FIVE

### PRESENTATION AND ANALYSIS OF DATA

#### 5.1 Introduction

This chapter presents an analysis of data and discussion of the results based on the objectives of the study. This chapter is organised into three main sections. The first section of this chapter presents an analysis of data gathered. The analyses of the data gathered are organised along themes. The themes guiding the analyses of the data include - the nature and motivation(s) for the implementation of GIFMIS, the implementation processes and strategies, accountability issues in the implementation as well as the challenges of GIMIS implementation. The second section of this chapter presents an in-depth discussion of the results or findings thereof. The third section of this chapter presents a summary of this chapter.

#### 5.2 Background of Respondents

This section presents a background of the respondents for the study. An analysis of the background of the respondents is very important, as it provides assurance that the respondents have adequate or sufficient knowledge of the area of study. It also provides the assurance of the appropriateness of the respondents interviewed. The researcher interviewed personnel from the GIFMIS secretariat, personnel from MOFEP and an external consultant on the project. The GIFMIS secretariat is a division or department under the Controller and Accountant General's Department (CAGD) responsible for the development and effective implementation of the GIFMIS project.

The respondents were selected and interviewed based on their experience and the relative importance or significance of their roles in the implementation of the GIFMIS programme. The researcher also considered the duration of service of the respondents at both the CAGD and the GIFMIS project. The table below provides summary of the respondents' background.

**Table 5.1: Respondents' Responsibilities**

<b>Position</b>	<b>Experience</b>	<b>Responsibilities</b>
<b>Project Administrator</b>	Over 15 years	Liaise between project and stakeholders (internal and external)  Coordinate periodic activities of the implementation teams
<b>Assistant Project Administrator</b>	Over 10 years	Coordinate activities of the implementation teams
<b>Project Accountant/Oracle Implementation Expert</b>	Over 20 years	Responsible for the functional aspects of the GIFMIS project
<b>Technical Consultant</b>	2 years	Responsible for the implementation of GIFMIS business processes
<b>Internal Oracle Expert</b>	Over 10 years	Responsible for the roll-out of the system to the various MDAs/MMDAs
<b>Budget Officer, MOFEP</b>	Over 10 years	Responsible for budget formulation

### **5.3 Background and Source of GIFMIS**

This section of the chapter presents the data on the background and motivations for the introduction of an integrated financial management information system in Ghana's public financial management system. The nature of the GIFMIS system is also presented in this section.

Ghana has, since the era of the economic reform programmes, introduced a plethora of reform programmes aimed at ensuring efficiency and effectiveness in public service delivery. Public sector financial management reform programmes were dominant in the numerous public sector reform programmes introduced. These public financial management reform programmes have been introduced to address the weaknesses identified in the country's public financial

management system. Most of these financial management reform programmes have been initiated supranational institutions as well as donor partners such as the World Bank, IMF and the EU.

The government of Ghana, in 2009, introduced or adopted an integrated financial management information system known as GIFMIS. The GIFMIS is an integrated information system designed to address the challenges or weaknesses in Ghana's public financial management system. According to one of the respondents,

*"... It is a computerised financial management system designed to take care of budget preparation, implementation and execution. GIFMIS will also be used for accounting, reporting and audit of public expenditure". (APA)*

Another respondent further added that,

*"The GIFMIS will be used for budgeting and financial reporting". (BO)*

The respondents however revealed that the GIFMIS is not the first IT or IS reform programme to be introduced by the government of Ghana in public financial management. They noted that the GIFMIS is an improved version of a previous integrated system known as the BPEMS. According to the respondents, the implementation of the BPEMS failed to progress past the implementation phase due to a number of factors. One of the respondents noted that,

*"The BPEMS failed because of lack of political support, parallel systems, lack of adequate funding and frequent changes to the implementation team". (APA)*

Another interviewee accentuated that

*"The implementation of the GIFMIS have been informed by the shortfalls or challenges encountered by the BPEMS. The GIFMIS is not a new system ...it is an improvement over BPEMS. The business processes are the same. The only thing that distinguishes the GIFMIS from the BPEMS is the implementation strategy and the software package. Relatively, the GIFMIS system is an upgraded version of the BPEMS system". (IOE)*

The above responses thus suggest that, the GIFMIS is not a “new” public financial management reform programme to be introduced. It is an attempt to resuscitate a previously failed reform programme.

Majority of the public financial management reform programmes have been initiated or introduced on the recommendation of international agencies and other development partners such as the World Bank, the IMF and the EU. However, the respondents revealed that the Ministry of Finance and Economic Planning and the Controller and Accountant General (CAG), with support from development partners, initiated the GIFMIS programme. The World Bank, according to one of the respondents, is providing the financial support. To accentuate the limited involvement or influence of the World Bank in the implementation of the GIFMIS, one of the respondents elucidates as follows;

*“There is limited influence from the World Bank. There is no World Bank representative on the GIFMIS implementation team.....they only come periodically to review progress of the GIFMIS implementation.”* (APA)

Another respondent also added

*“This is a locally initiated public financial management programme. The World Bank bought in into the idea and agreed to provide the needed assistance (financial assistance). Apart from the financial assistance, they are not directly involved in the implementation of the GIFMIS programme.”* (PA)

#### **5.4 Nature and Objectives of the GIFMIS Programme**

The GIFMIS programme is a broad financial management programme with a wider scope. The GIFMIS system has three broad scopes – the funding scope, the institutional scope and the system scope.

*Funding Scope:* The funding scope explains the type or kinds of funds or financial transactions that can be recorded and/or accounted for using the GIFMIS system. The respondents explained that, all public funds including government of Ghana consolidated funds, internally generated

funds, statutory funds (for example, the district assemblies common fund) as well as donor funds would be recorded and/or accounted for using the GIFMIS system.

*Institutional Scope:* The institutional scope provides for public institutions required to use the GIFMIS system in recording and/or accounting for public funds or resources. According to the respondents, all MDAs are required to use the GIFMIS system for recording and accounting for financial resources or transactions. That is, MDAs at the various levels of government – regional headquarters as well as district offices.

The table below provides a summary of the scope of the GIFMIS programme.

**Table 5.2: Scope of GIFMIS**

<b>Scope</b>	<b>Description</b>
<b>Funding Scope</b>	GOG Consolidated fund Internally Generated funds (IGFs) Statutory Funds Donor funds/resources
<b>Institutional Scope</b>	All MDAs at; National Headquarters Regional Headquarters Districts
<b>System Scope</b>	Programme Based Budgeting Payroll & HuRMIS (PSC) CS-DMRS (DMD-MoFEP) E-Monitor (Non-Tax Revenue- MoF) PIMS (PID- MoF) TRIPS & GCMS (GRA) T-24& SWIFT (BoG) E-Procurement (Public Procurement Authority)

*Source: Project Secretariat*

Despite the above-identified scope of the GIFMIS system, other respondents revealed that in future, the scope of the GIFMIS system could be expanded. To echo the views of the other respondents, one of the respondents had this to say,

*“The GIFMIS system is limitless...it can be expanded or reduced in future depending the size and needs of the government or the country’s public financial management system. Future legislations can increase or reduce the scope of the GIFMIS system.”* (TC)

The respondents noted that the benefits associated with having an integrated financial management system was the main motivation for the adoption, implementation of the GIFMIS system as a public financial management reform programme. The respondents elucidated a plethora of benefits associated with the adoption of GIFMIS in Ghana’s public sector financial management system. The benefits associated with the adoption and/or implementation of GIFMIS, according to the respondents include, but not limited to, transparent transaction processing, real-time information for government decision making, security of public financial information as well as the flexibility of easy tracking and control of public expenditure commitments.

The respondents hinted further that, the motivations for the adoption and implementation of the GIFMIS system in Ghana’s public financial management has not changed. To echo this, a respondent stated the following;

*“...no, the motivations for the implementation of the GIFMIS have not changed. We are committed to ensuring continuous improvement in the public financial management system... we are trying to find effective and efficient ways of doing things as far as the accounting for public resources or funds are concerned”.* (PAO)

Another respondent reiterated that

*“There has been no change in the motivation for the implementation of the programme. The motivation has always been to bring about efficiency in the management and/or accounting for public resources”.* (IOE)

The respondents also hinted that, the new public financial management programmed (that is GIFMIS), when operational, will address majority, if not all, of the problems in Ghana’s public

financial management system. They noted specifically that, the GIFMIS programme would promote accountability, improve budget formulation and implementation, effective and efficient public expenditure control as well as reduce corruption to low levels. They noted that, the in-built system controls would facilitate easy monitoring and control of spending by the various MDAs. For instance, one of the respondents had this to say on the monitoring and control of public expenditure.

*“The system will prevent, the hitherto, ease of switching of funds. The system is configured such that, the MDAs/MMDAs will need to apply to the minister of finance and economic planning for virement before funds can be switched from one expenditure item to another. Another important thing worth mentioning is that, no MDA/MMDA can commit the government to spend if there are no funds available. That is before an MDA/MMDA initiates a spending process, they must check for availability of funds for that expenditure item. The system has been configured to curb or reduce budget overruns or over spending. Additionally, the MDAs/MMDAs would need to seek approval from the minister of finance before they can undertake certain projects. This enables the minister of finance monitor and control public spending. The system will help ensure that funds are spent on budgeted items”.* (APA)

Another respondent also adds,

*“The system has been configured such that, it leaves audit trails. This makes it easier to identify persons who initiate transactions in the GIFMIS system”.* (IOE)

These notwithstanding, all the respondents unanimously agreed that the GIFMIS system has the tendency of reducing the perceived corruption in public financial management. They hinted the system cannot be expected to eradicate or eliminate corruption in the public sector. Thus, at best, the GIFMIS system can only reduce corruption prevalence in the public sector to relatively low levels. The system cannot completely eradicate corruption from public financial management. To accentuate the influence of the GIFMIS system on corruption prevalence in public financial management, the respondents stated the following

*“There is no perfect system. The GIFMIS system can only reduce corruption drastically....the system is developed by humans. The GIFMIS system is such that no single individual can*

*initiate and approve or authorise transactions in the system. The multiple approval levels will help reduce corruption.” (PAO)*

Another respondent also stated that

*“The new system (GIFMIS) will reduce corruption...yes. We cannot eradicate corruption. We should not have it at the back of our minds that this system or there is any better system that can or is capable of eliminating corruption completely from the public sector or any human institution. The system is designed and implemented by humans.... people who will use the system play a role in the design and implementation.” (IOE)*

On the issue of reducing corruption in the public sector, a respondent recounted the following

*“The GIFMIS system, when it becomes fully operational, will enhance efficiency in payment systems. For instance, contractors will no longer be paid using cheques. The system is such that the details of contractors, including account details, will be captured onto the system. On completion of contracts, and with appropriate certifications raised, funds will be transferred to the accounts directly by Bank of Ghana. They (contractors) do not have to depend directly on the MDAs/MMDAs for payment.” (PAO)*

Additionally, the respondents hinted that apart from the influence of the system on corruption in the public sector, the new public financial management system would help reduce such things as judgement debts. Explaining this, one of the respondents had this to say

*“...contractors have been advised not to accept or execute any contract until they sight a purchase order (PO) produced from the GIFMIS system. With this, judgement debt will be a thing of the past.” (APA)*

The above thus suggests that, the introduction of GIFMIS in Ghana’s public financial management system will help revolutionise the public sector financial management – budget formulation and implementation, monitoring and control of public expenditure as well as accounting for public funds. The GIFMIS system will facilitate the timely provision of reports

or information for consumption by public managers as well as external stakeholders such as development partners and other donor agencies.

## **5.5 GIFMIS Implementation Processes and Strategies**

A detailed account of the GIFMIS implementation processes are presented in this section. Strategies adopted in the implementation of the programme are also presented in this section. The section is organised further into two subsections. The first section presents detailed account of the implementation processes while the second presents the implementation strategies.

### **5.5.1 GIFMIS Implementation Processes**

#### ***5.5.1.1 Formation of Implementation Teams***

The formation of various specialised teams preceded the implementation of the GIFMIS programme. The implementation teams formed included the cultural change and management team, the legal support team, the finance and accounting team, the budget team, cash management and treasury team, the systems assurance team. These teams were formed to perform specific specialised functions, both technical and non-technical.

#### ***5.5.1.2 Development of New Chart of Accounts***

To facilitate effective integration and easy sharing of information a new uniform chart of accounts (CoA) were developed. The new uniform CoA were developed through a close collaboration between the technical teams and the CAGD and MOFEP. The design or development of a uniform CoA, according to the respondents, was necessary to facilitate budgeting and financial reporting.

#### ***5.5.1.3 Legislative Review***

The development of the new uniform CoA was accompanied by a review of the then existing public financial regulatory framework. This, according to the respondents, was important to

provide a sound legal foundation to support the implementation of the GIFMIS programme.

One of the respondents had the following to say

*“The legal support team was tasked with reviewing the existing legislations on Ghana’s public financial management. Some of the legislations need amendments to facilitate the full implementation of the programme. We need to amend some of the legislations on our public financial management, especially the legislations on our statutory funds.”* (APA)

The respondents noted that, the statutory funds have separate regulations on their management hence, required amendments to facilitate their management on the GIFMIS platform. As at the time of gathering data for the study, one of the respondents noted that they had submitted a bill, with the help of the legal support team, to parliament for consideration.

#### **5.5.1.4 Stakeholder Engagement**

The next stage of the implementation of the GIFMIS programme involved the identification and the engagement of stakeholders. The stakeholders identified in the implementation of the GIFMIS programme were the heads or managers and the personnel of the various MDAs and MMDAs. According to the respondents, these stakeholders are critical to the successful implementation of the GIFMIS programme.

Among the identified stakeholders, the respondents noted that the heads or managers of the various MDAs and MMDAs are the most influential in the successful implementation of the GIFMIS programme. The project secretariat organised a number of workshops and conferences for the heads of the various MDAs and MMDAs. These conferences focused on the benefits for the introduction of the IFMIS in Ghana’s public financial management system. To highlight this, one of the respondents said

*“...we organised series workshops and conferences, at the initial stages, for the heads of all government agencies and departments. We did same [organised workshops] for the chief executives of the various metropolitan, municipal and district assemblies. At these workshops, we highlighted the need and the importance of the GIFMIS system. That is, we made them understand the benefits of the system and how the system works and implored them to be change agents in their various departments and districts.”* (APA)

#### **5.5.1.5 Capacity Building**

After the stakeholder engagements, the respondents noted that, training programmes were designed to build the capacity of the personnel at the various MDAs and MMDAs. Training workshops were organised for some selected personnel of the MDAs and MMDAs. The heads or managers of the MDAs and MMDAs selected these personnel. The selected personnel, having acquired the necessary training, are required to train the other personnel in the MDAs and MMDAs. This training programme, according to the respondents was dubbed train the trainers (TTT).

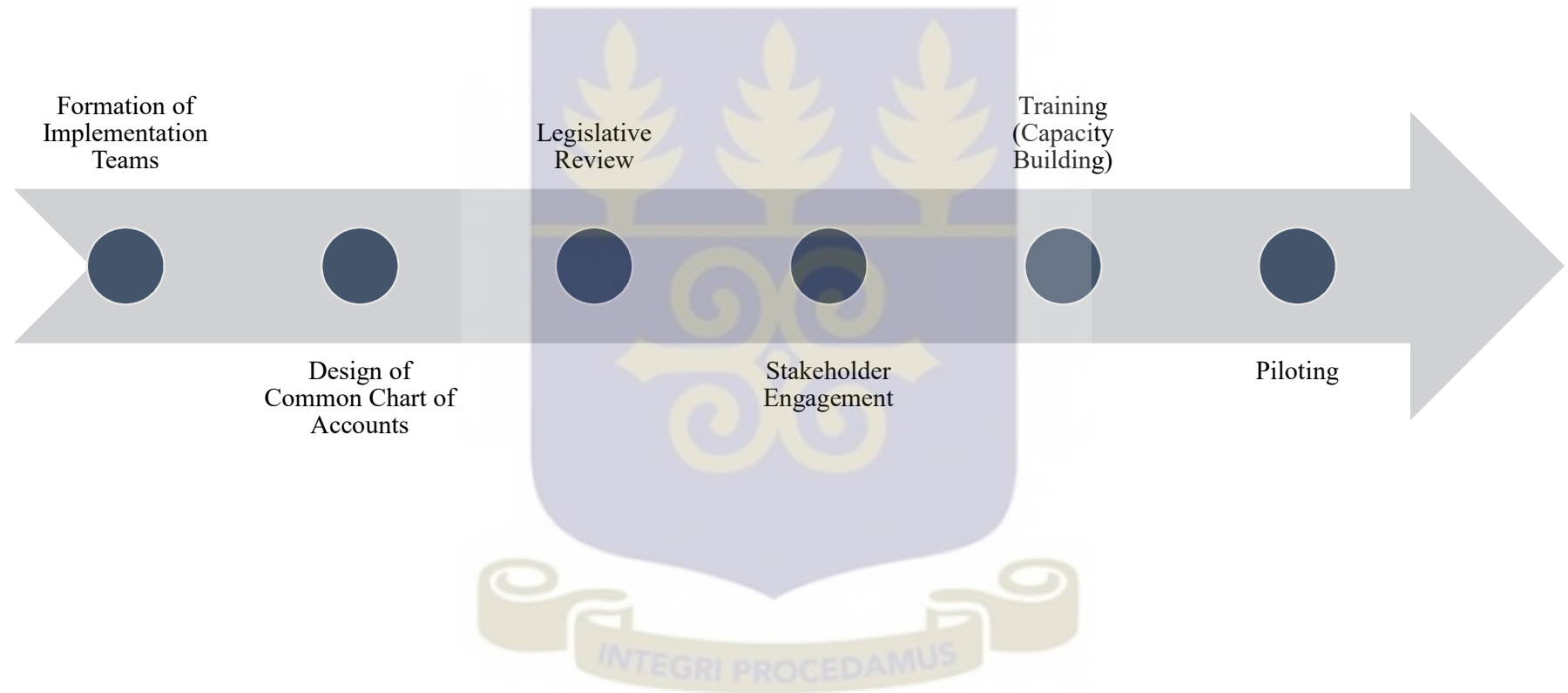
#### **5.5.1.6 Pilot Testing**

The GIFMIS system was initially piloted in seven (7) MMDAs, namely – Tema Metropolitan Assembly (TMA), Tarkwa Municipal Assembly, Ho Municipal Assembly (HMA), Cape Coast metropolitan Assembly (CCMA), Accra Metropolitan Assembly (AMA), Obuasi Metropolitan Assembly (OMA) and the Kumasi Metropolitan Assembly (KMA). According to the respondents, these district assemblies were selected based on the relative availability of IT infrastructure to support the operation of the GIFMIS system. For instance, the APA responded to the reason for the selection of the seven MMDAs by saying the following,

*“At the time the system was ready to be piloted, these assemblies had adequate infrastructure, especially computers and accessories as well internet connectivity, to support the [GIFMIS] system. You [interviewer] know, these are relatively big assemblies (in terms of revenue). (PA)*

The GIFMIS implementation processes are summarised in the figure below (*figure 5.1*)

*Figure 5.1: GIFMIS Implementation Processes*



*Source: Researcher's Own Construct*

## 5.5.2 Implementation Strategies

### 5.5.2.1 Composition of Implementation Team

The success of any reform programme according to extant literature, largely, depends on the effectiveness of the implementation process. An effective implementation on the other hand depends, to an extent, the implementation team. The expertise or technical knowledge of the implementation team determines the effectiveness of the implementation of a system or programme. According to the respondents there are several sub-teams supporting the development and/or implementation of the GIFMIS system. The GIFMIS implementation sub-teams include the change management team, the legal team, the communications team, the quality assurance team as well as the procurement team.

The respondents hinted that majority of the GIFMIS implementation teams have external consultants as members of the team. They noted further that the external consultants possess expertise in specific areas of the GIFMIS system. This notwithstanding, local experts dominate the various implementation teams. To accentuate this point, an interviewee stated that

*“...the external consultants come in with expertise in specific areas [mostly technical expertise]. They are not in charge of the implementation of the entire GIFMIS system. They provide the local implementation team with guidance through the system implementation.”*  
(APA)

Furthermore, the respondents hinted that, the local implementation team members were drawn from the various MDAs. The idea is to create a sense of ownership of the GIFMIS system in every MDA. According to the respondents, the personnel from the various MDAs are to “champion” or promote the effective implementation of system in each MDA.

Additionally, the respondents noted that, local implementation team members are attached to the foreign or external consultants. The rationale is facilitate the transfer of knowledge from

the external consultants to the local experts. This will improve the expertise of the local implementation team members to management the GIFMIS system beyond its implementation.

The above confirms the involvement of expatriate or external consultants in the implementation of the GIFMIS system. However, the roles of the external consultants are limited to the provision of technical services and guidance of the local GIFMIS implementation team. The essence of the limited roles of the external consultants in the implementation is to help build the capacities of the local implementation team to manage the GIFMIS system after implementation.

#### **5.5.2.3 System Choice**

The choice of the system is very important especially in the implementation IT based programmes or system. Generally, there are two main system options – customised system and over-the-shelf system (OTS). The respondents revealed that Ghana opted for standardised OTS system. They (respondents) noted that with an OTS, there is access to a pool of experts worldwide to help resolve future system problems. The respondents also hinted that the OTS system is relatively less expensive, compared to the customised system. Accentuating the rationale for the choice of an OTS system, an interviewee had the following to say.

*“...from best practices, the OTS system is highly recommended. It less expensive compared to customising a system to suit local environment. The OTS retains the benefit of access to a pool of expert assistance to help resolve system challenges. The OTS promotes standardisation of systems. It IPSAS compliant.” (APA)*

### 5.5.2.2 Implementation Approach

GIFMIS is a complex computerised financial management system. Literature identifies two main implementation approaches – one-time implementation and the phased implementation approach. According to the respondents, the team adopted the phased implementation option as opposed to implementation of one complete system. Highlighting the importance of the phased implementation approach, the respondents had the following to say

*“This approach [phased approach] is the best approach to implement such a complex system. The phased implementation approach combines the benefits of top-down and bottom-up approach to implementing programmes. It allows for feedback. Problems could be spotted at the early stage of the implementation process and corrected.” (PA)*

Another respondent also added the following

*“The phased approach provides comfort and avoids resistance. For instance, we started by implementing the general ledger (GL) module of the GIFMIS system. The GL module is relatively easy to work with. The users were comfortable working in the GL. This reduced resistance to the system. Summaries of transactions are recorded in the GL. Apart from the GL module, the procure-to-pay modules of the system have been implemented. Currently, the fixed assets module is being implemented...the inventory module is the next to be implemented.” (PAO)*

The GIFMIS implementation process is organised into three broad phases. The table below provides a summary of the phases of the implementation process and the activities in each phase of the implementation.

**Table 5.3: GIFMIS Project Phases**

Phase	Activities
<b>Phase 1 (2010)</b>	<ul style="list-style-type: none"> <li>❖ Identify and select a budget preparation module/software used for the preparation of the 2012 budget</li> <li>❖ Cash Management implementation</li> <li>❖ Load 2011 budget into GIFMIS from Activate for implementation</li> <li>❖ Review of IPPD internal control environment in readiness for migration into oracle financials</li> <li>❖ Feasibility study of MMDA implementation</li> </ul>
<b>Phase 2 (2011)</b>	<ul style="list-style-type: none"> <li>❖ Implement GIFMIS into departments and agencies and regional coordinating councils</li> <li>❖ Transition to GIFMIS selected budget preparation module/software for 2012</li> <li>❖ Develop charter for HRMS project</li> <li>❖ Integrate IPPD into GIFMIS</li> <li>❖ Pilot implementation to MMDAs</li> <li>❖ Produce public accounts from GIFMIS for 2011</li> </ul>
<b>Phase 3 (2012 and beyond)</b>	<ul style="list-style-type: none"> <li>❖ Commence integrated operations nationwide in MDAs</li> <li>❖ Phased MMDA rollout</li> <li>❖ Implement GIFMIS fixed assets module</li> </ul>

The respondents also hinted that, a pilot of the programme in seven (7) MMDAs preceded the implementation of the GIFMIS system in the MMDAs. The seven MMDAs are Tarkwa Municipal Assembly, Cape Coast Metropolitan Assembly, Ho Municipal Assembly, Tema Metropolitan Assembly, Obuasi Municipal, Kumasi Metropolitan Assembly and Accra Metropolitan Assembly. The respondents noted that accessibility to internet infrastructure accounted for the pilot of the project in these MMDAs.

#### ***5.5.2.4 Change Management***

The introduction of GIFMIS as public financial management system will change the whole system of recording and accounting for public resources. The GIFMIS is a computerised system of managing and/or accounting for public funds. Public financial management have been characterised, over the past years, by manual systems and procedures. The introduction of this computerised financial management system will significantly affect work processes and tasks. The changes in work processes and tasks creates uncertainties, which could in turn, lead to strong resistance by groups, or group of persons who would be affected most. It is thus important to manage the transition or change from the old to the new system.

According to the respondents, at the initial stages of the implementation of the GIFMIS programme, they recognised the relative significance of managing change. To this, the respondents hinted that, there is a dedicated team responsible for managing change from the manual system to the computerised system of public financial management. Apart from the establishment of a team responsible for change management, the respondents noted that the implementation team developed a module or document on strategies for managing change.

According to the respondents, at the initial stages of the implementation process was met with resistance from both management and staff of the various MDAs/MMDAs. This, according to the respondents, was expected. They hinted that change is something people ordinarily are uncomfortable with especially, if it changes the status quo. To accentuate this, one of the respondents had this to say

*“...you see, people naturally do not want change especially if such changes significantly affect ways of doing things or if they suspect their jobs are in danger.” (PA)*

As part of the strategies for successful change management, the heads or managers of the various MDAs and/or the MMDAs were identified as key actors in the process of managing

change. Thus, the change management process started with the managers of the MDAs/MMDAs. An interviewee recounted the following

*“The managers or chief executives of the various MMDAs are crucial in the effective implementation of the GIFMIS programme. Their acceptance and support of the system is invaluable to the implementation. We assured them that the introduction of the GIFMIS system would not change their positions as bosses. We explained to them the importance of the new system to their work [as chief executives and managers] and public financial management as a whole. We made them aware that the main aim of GIFMIS is to improve public financial by producing timely and credible information, which makes decision making swift and therefore improves public service delivery. [Again] we convinced them that the GIFMIS system would assist in the efficient management of their respective organisation. After explaining to them the benefits of the GIFMIS system, we encouraged them to be agents of change for GIFMIS in their respective organisations.”* (PAO)

Additionally the respondents revealed that series of workshops and seminars briefings were organised at various centres across the country. These seminars and workshops, according to the respondents, were organised to educate people on what the GIFMIS system is, the need the automation of public financial management system and how the GIFMIS system will affect their jobs or functions. These [seminars and workshops] were organised before and during the implementation of the system. According to one of the respondents,

*“We had to create awareness before actual implementation started. This was important to gain wide acceptability and clear all doubts about the introduction of the GIFMIS system. Acceptability of the system is fundamental to effective implementation and use of the system.”* (APA)

Thus, the change management strategy of the implementation team was, first, to sell the idea of the benefits of the GIFMIS system to the managers or chief executives of the various MDAs and MMDAs. These chief executives were then exhilarated to champion the change in their respective agencies and departments. This thus creates a sense of ownership of the GIFMIS programme. Secondly, the implementation team embarked on seminars and workshops .to educate personnel of the various MDAs and MMDAs about the need for the change in the public financial management system.

## **5.6 Factors Influencing the Implementation of GIFMIS**

Implementation has been identified in literature as one of the main factors that contribute to the success and/or otherwise of the numerous reform programmes introduced in the public sector, especially in developing economies. Implementation has, thus, been identified as an important element in the process of reforming the sector, especially, reforming public financial management. This section thus focuses on the GIFMIS implementation strategies and processes. The sections is organised along themes – the implementation team, infrastructure, legislation/regulatory framework, politics and political support, change management, personnel as well as the implementation strategy and/or process.

### **5.6.1 Legislation/Regulatory Framework**

The new system (that is the GIFMIS); according to one of the respondents will be the formal system for recording and accounting for government revenue and expenditure. This system affects all public funds and institutions. However, the effectiveness of the new public financial management programmes requires an effective and/or adequate legislation or regulatory framework provide the new system the needed legal impetus. Respondents were asked whether the current financial management regulatory framework were adequate to facilitate the effective implementation of the GIFMIS financial management system. The respondents noted that, although the existing regulatory framework for public financial management supports the GIFMIS system, certain aspects required amendments. They also noted the government has made significant strides in providing the needed legal impetus for the GIFMIS system.

One of the most significant attempt of the government's at improving on the existing legal or public financial management regulatory framework is the introduction of the Ghana Revenue Authority Act, 2009 (Act 791). This act merged the three revenue collection agencies to promote or facilitate the centralisation of government revenue collection and accounting. For instance, one of the respondents stated that

*“As part of the measures to ensure a sound legal backing for GIFMIS, the government passed the Ghana Revenue Authority (GRA) Act to integrate the revenue collection agencies and/or consolidate revenue mobilisation. This will facilitate recording and accounting for government revenue in the GIFMIS system. Apart from this, the legal team is currently reviewing the existing legal or regulatory framework for public financial management system”. (APA)*

To this, another respondent hinted that

*“...plans are far advanced to amend the regulation of some of the statutory funds [for example, the contingency fund] to facilitate their integration into the GIFMIS system. The legal team supporting the implementation have submitted bills to parliament to amend or change the regulation of some of the statutory funds to facilitate the management of such funds using the GIFMIS system. Without the amendments, these funds cannot be brought unto the GIFMIS system.” (PA)*

#### **5.6.2 Availability of IT Infrastructure**

The GIFMIS is an integrated financial management system and thus requires adequate IT infrastructure. Extant literature suggests that the success of an IT/IS systems or programmes depends largely on the availability adequate IT infrastructure. The respondents (interviewees) were asked whether the various MDAs and MMDAs had sufficient infrastructure to support or facilitate the implementation of the GIFMIS system.

According to the respondents, although the various MDAs and/or MMDAs had some infrastructure IT infrastructure, in majority of the MDAs and MMDAs, the infrastructure were woefully inadequate to facilitate the effective implementation of the programme. Majority of the MDAs had basic infrastructure such as computers, printers and other computer peripherals but lacked one most important component of IT infrastructure needed to facilitate the implementation and use of the system, internet facilities. To this, one of the respondents had this to say

*“IT infrastructure is not only internet...you cannot tell me there is a single MDA or district assembly in this country without computers, printers or photocopiers...yes it is true most of*

*them do not have sufficient infrastructure but we are working in close collaboration with other state institutions to improve upon the existing IT infrastructure in the various MDAs and MMDAs across the country.” (TC)*

The lack of adequate IT infrastructure, especially internet facilities, was identified as a major impediment to the effective implementation of the GIFMIS. To this the respondents noted that, transaction processing centres (TPCs) were established to address the problem of inadequate IT infrastructure in some MMDAs. The TPCs were created to aid the MDAs and/or the MMDAs without adequate IT infrastructure, process their transactions using the GIFMIS platform.

The respondents noted further that, the National Information Technology Agency (NITA) has been charged or is responsible for the provision or installation of the needed or adequate IT infrastructure, especially internet connection facilities in the various MDAs and/or MMDAs. They [respondents] however noted that, NITA has been relatively slow in the provision of the necessary internet facilities and hence, slowed the implementation process. Explaining the inadequacy of IT infrastructure and the measure taken to address them, one of the respondents had this to say

*“Most of the MMDAs lack internet connection facilities. The national information technology agency is responsible for the provision of internet infrastructure in public organisations where such facilities are lacking. I must say that unfortunately the implementation has moved ahead of NITA. This necessitated the establishment of transaction processing centres in places where NITA might have not reached at the time of implementing the GIFMIS system. Lack of financial resources is the main reason for NITA lagging behind the implementation. There times we [GIFMIS secretariat] have had to release funds to support NITA in the provision of internet facilities for MMDAs. Apart from supporting NITA financially, we have established transaction processing centres where the various MDAs and/or MMDAs [without internet connectivity] travel to process their transactions on the GIFMIS platform.” (PAO)*

### **5.6.3 Personnel Capacity**

The GIFMIS is a relatively complex financial management information system and thus requires users to possess certain skill-sets to be to operate or use the system. It requires people with high IT or computer literacy. The respondents were asked whether the employees or staff

of the various MDAs or MMDAs possessed the requisite capacities to work or operate on the GIFMIS platform. They [respondents] noted that, majority of the staff of the various MDAs were not technologically perceptive. The high rate of IT illiteracy posed as a major challenge to the implementation of the GIFMIS system. One of the respondents recounted the following

*“...during the initial implementation stage, we realised there were high rates of IT or computer illiteracy among the personnel of the various MDAs and MMDAs. In fact we were not surprised....they are used to the manual paper ways of doing things.”* (PAO)

The respondents added that, the organised a number of training sessions for the staff of the various MDAs/MMDAs to improve on their capacities. They designed a training programme known as ‘train the trainers’ (TTT). With the TTT programme, the various MDAs/MMDAs were to nominate a person each, herein known as the trainers, for the training programme. The ‘trainers’ from the various are responsible for building the capacities or training the other staff of the various MDAs/MMDAs after receiving adequate training from the implementation team. The respondents however revealed that, in some MDAs/MMDAs, the nomination of the trainers were based on one’s loyalty to the top hierarchy instead of competence or qualification. They also revealed that some heads of MDAs/MMDAs initially were reluctant to nominate subordinates as trainers for fear of losing their authority in the organisations. One of the interviewees recounted the following

*“...responsibility comes with some form of authority. The management of some MMDAs were unwilling to nominate subordinates as trainers. They did not want to lose their authority in their organisations and this was a problem, as far as building staff capacity is concerned.”* (PAO)

#### **5.6.4 Political/Administrative Commitment and Support**

Politics and political commitment and support have been identified as critical in public reform, especially in IT based public management reform programmes. IT or information system related systems or programmes results in changes in procedures, organisational structure and

existing infrastructure. Implementing such programmes requires the support and commitment of key decision makers (political and administrators).

Almost all the respondents unanimously revealed that the implementation of the GIFMIS, unlike other public management reform programmes, has received adequate political support. The respondents noted further that the political commitment and support trickled down to the administrative level. The respondents were then asked how the political support and commitment is demonstrated. To this, one of the respondents explained that,

*“The minister of finance issued a communique instructing all MDAs and MMDAs to process transactions using only the GIFMIS platform. Those who went contrary to the instructions of the minister encountered delays in the release of their budgetary allocations.”* (APA)

Another respondent also added the following

*“Political support has not been a problem for this project. The project has received adequate political support by both president and the current minister of finance and economic planning. The president usually makes mention of the need to get the GIFMIS system operational and echoes his commitment to ensuring successful implementation of the system. The minister [of finance and economic planning] has demonstrated consistent commitment to the GIFMIS system. He was in charge of the GIFMIS system as a deputy minister. He currently chairs the GIFMIS implementation steering committee. The minister provides periodic reports to the president. The minister has been very instrumental in the implementation of the GIFMIS system”.* (PAO)

Another respondent summarised the commitment and support of the minister, in the introduction of the GIFMIS system in public financial management, in the following words.

*“The current finance minister has taken this project [GIFMIS] as his baby.”* (PA)

The above highlights the relative political support of the GIFMIS project. However, almost all of the respondents were reluctant to comment when they were asked whether this sustained political support of the GIFMIS project could be attributed to the seeming stable political governance system. The implementation of the GIFMIS system as a public financial

management reform programme started in 2009 just when a new political party [the NDC] had been voted into power. The party has remained in power until date.

This notwithstanding, the response of one of the interviewees seem suggested that, to some extent, the stability in the political governance system could be attributed to the sustained political support and/or commitment to the implementation of the GIFMIS programme.

### **5.7 Accountability Issues in the Implementation of GIFMIS**

The figure below (*figure 5.1*) presents the GIFMIS implementation organisational chart. The chart provides information on the key actors involved in the implementation of the programme. The implementation chart indicates that, the key institutions or actors involved in the implementation of the GIFMIS programme are the MOFEP, the CAGD, the Ghana Revenue Authority (GRA) and the project secretariat (GIFMIS secretariat).

The project secretariat is a unit under the CAGD solely responsible for the implementation of the GIFMIS programme. The secretariat coordinates the activities of a myriad of teams instituted to ensure the effective implementation of the GIFMIS programme. The implementation teams include the payroll team, cultural change and process management team, finance and accounting team, budget team, treasury and cash management team, IT technical team, and legal support team.

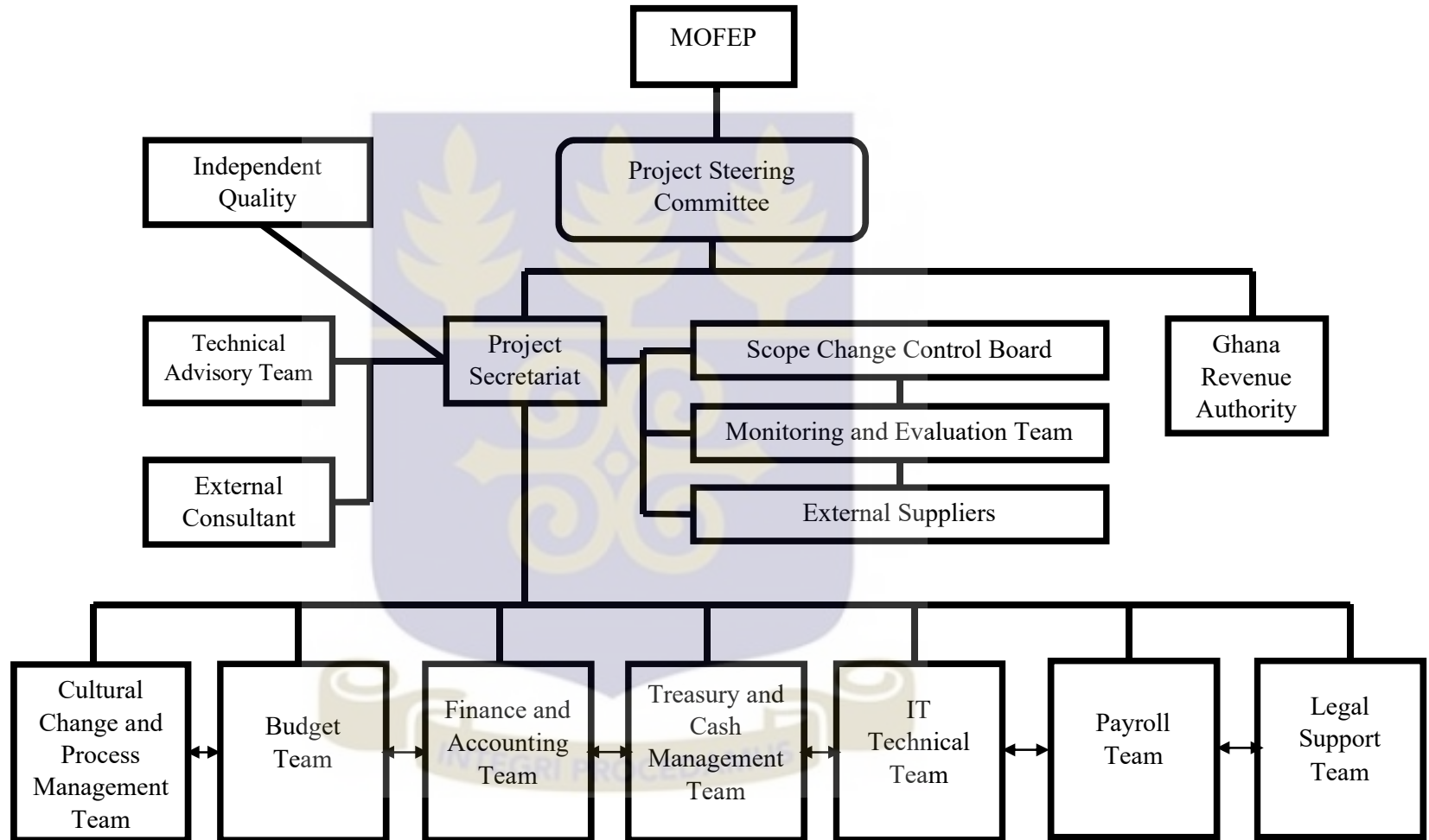
The activities of the various implementation team are complementary to one another. This thus, depicts a horizontal relationship among the various GIFMIS implementation teams. However, it is worthy of note that, the various implementation teams report to the project secretariat. That is, the project secretariat oversees and coordinates the activities of the implementation teams. As shown in the implementation organisational chart, there exist a vertical relationship between the project secretariat and the various GIFMIS implementation teams (*see figure 5.1*).

The GIFMIS programme implementation steering committee has a vertical communicative relationship with, both the GRA and project secretariat, and the MOFEP. The project secretariat reports to the project steering committee thus depicting an upward communicative relationship. The project steering from time to time, based on the recommendations of technical advisory team, make recommendations to the various implementation teams, through the project secretariat. This thus illustrates a downward communicative relationship between the project steering committee and the project committee. Figure 5.1 suggests that there is a top-down and bottom-up communicative interaction between the project secretariat and the project steering committee.

Apart from the implementation teams and the project steering committee, the project secretariat shares a horizontal communicative relationship with other actors involved in the implementation of the GIFMIS programme. These actors include the GRA, the scope change control board, monitoring and evaluation team, external consultants and the technical advisory team (*See figure 5.2*). The GRA, responsible for the mobilisation of government revenue, collaborated with the project secretariat and other specialised implementation team to provide an interface that linked the GIFMIS system with the system in use by the GRA. The other actors, such as the external consultants, and the scope change and control board provided advice, mainly technical, to the project secretariat.

The figure below is the GIFMIS implementation organisational chart

Figure 5.2: GIFMIS Implementation Organisational Chart

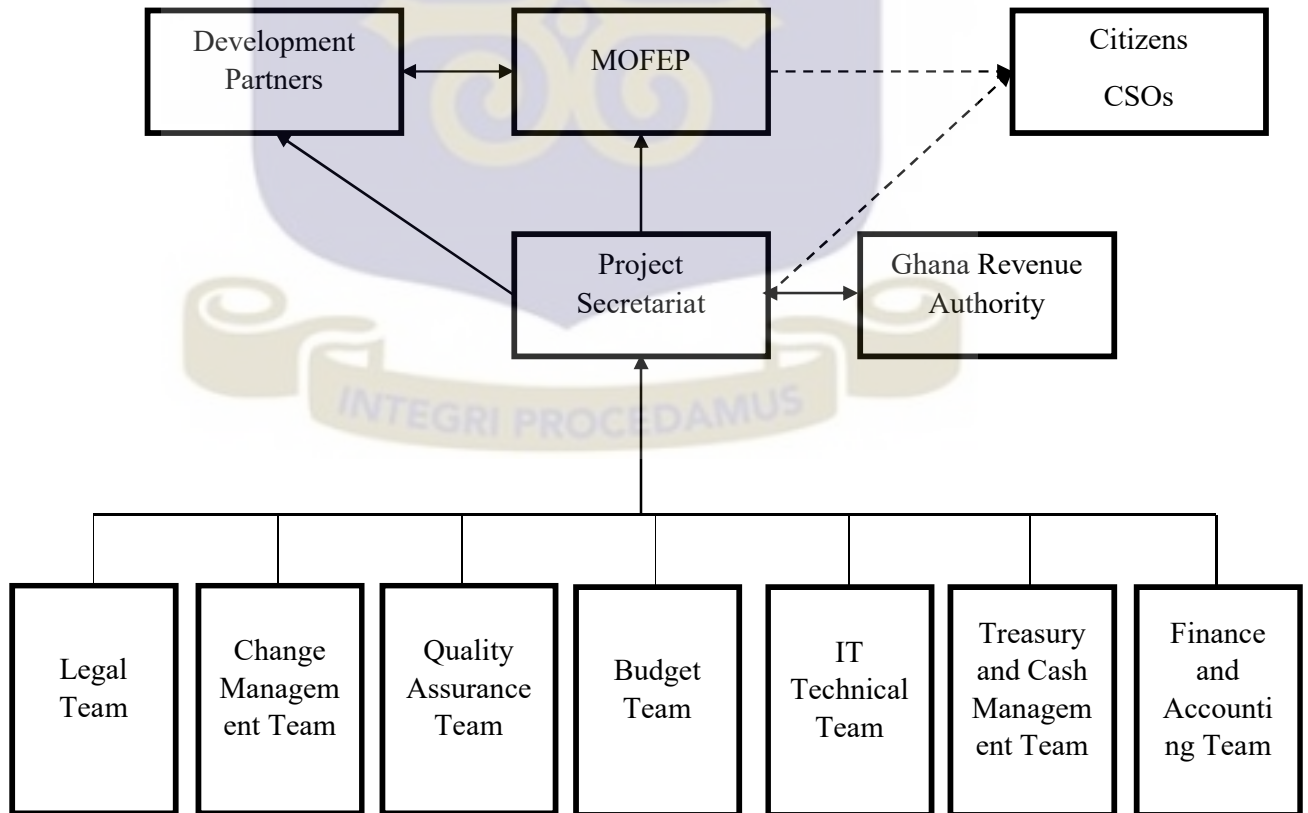


This notwithstanding, during the data-gathering phase of the study, one of the respondents hinted that not all the committees or teams performed their tasks as assigned to them during the preparatory stages of the implementation process. Specifically, one of the respondents noted the following

*“On paper, these are the key institutions and teams involved in the implementation of the programme. However, some of the teams could not perform the tasks assigned to them. For instance, the technical advisory team was supposed to advise the [project] steering committee on technical issues but could not to do that.”* (PA)

The respondent however did not provide any explanation(s) for the inability of the technical advisory team to perform their functions. This indicates that the communicative relationship(s) depicted by the programme implementation organisational chart may not be a reflection of the actual communicative relationships that existed between or among the various actors involved in the implementation of the programme.

**Figure 5.3: Accountability Relationships**



## **5.8 Discussion of Results**

A discussion of the findings of the study are presented in this section. The study focuses mainly on the implementation of GIFMIS as a public financial management system. In addition to this, the study examines the motivation or need for an introduction of the GIFMIS in Ghana's public financial management system. The study also examines the implementation processes and strategies as well as challenges in the implementation of the GIFMIS programme.

The discussion of the results or findings of the study is organised thematically in accordance with the objectives of the study. The first part of this section discusses the nature and objectives for the introduction of GIFMIS in Ghana's public financial management system. The second part of this section discusses results on the implementation process and strategies. The subsequent sections presents discussions of the results on the accountability relationships emerging in the implementation of the programme.

### **5.8.1 Nature and Objectives for the Implementation of GIFMIS**

This section of the chapter focuses on discussion of findings on the motivation(s) for the adoption, implementation of public sector financial management reform programmes in Ghana. Emphasis is placed on the discussion of the motivations for the adoption and implementation of GIFMIS in Ghana.

Ghana has embarked on a plethora of public financial management reform programmes since era of the ERPs. A myriad of factors have accounted for the development and introduction of the numerous public financial management reform programmes. A host of these reform programmes were externally motivated. For instance, reform programmes such as the MTEF and the BPEMS were motivated by such institutions as the World Bank and the IMF.

This notwithstanding, analysis of the data suggest that the GIFMIS programme, unlike previous public financial management reform programmes, was not driven by any of these supra-

national institution or donor partners. Thus, the GIFMIS programme was not externally motivated. According to the respondents, the implementation of the GIFMIS in the country's public financial management system was mainly motivated by the need for effectiveness and efficiency in public financial management as well as the benefits associated with have an integrated public financial management system. The benefits associated with the introduction of GIFMIS in Ghana's public financial management system include – promote transparency and accountability; reduce the prevalence of corruption in the public sector management; facilitate budget formulation and implementation; facilitate public expenditure monitoring and control; real-time information sharing to enhance public decision making. These benefits, as identified by the respondents, are consistent with the studies of Yamamoto (2006); Tolofari (2005); Diamond and Khemani (2006); Tsamenyi et al (2006); Kasumba (2009); Ameen and Ahmad (2011); Kiilu and Ngugi (2014). For instance, the works of Ameen and Ahmad (2011) and Oye (2013) revealed that the lack of transparency and accountability significantly influence the development and introduction of reform programmes in public financial management.

#### ***5.8.1.1 Reduce the Prevalence of Corruption***

The development and introduction of the GIFMIS system is expected to reduce the prevalence of corruption or corrupt practices in the public sector or public management. This notwithstanding, the respondents argued that the new system (GIFMIS) can only be expected to reduce corruption but not eliminate it completely.

The respondents noted further that, there are multiple levels of authorisation in the GIFMIS system and that, no individual can initiate and authorise a transaction on the GIFMIS platform. This thus, reduces or eliminates monopoly of power to be exercised by managers of public resources. The findings of this study is consistent with the findings of Ameen and Ahmad (2011). Monopoly of power and discretion have been identified as factors that promote corruption or corrupt practices in the public sector. According to Ameen and Ahmad (2011),

the introduction of IT or integrated systems in public financial management can reduce corruption by lessening the monopoly of power and discretion of public officials. They also noted that, the system leaves audit trails and thus transactions could easily be traced to their initiators.

#### ***5.8.1.2 Promote Transparency and Accountability***

One of the benefits expected to be derived from the implementation of the GIFMIS system, according to the respondents, is promotion of transparency and accountability in public financial management. According to the respondents, the integration of systems enhances transparency in the recording and accounting for public resources. The respondents note further that, the GIFMIS system leaves audit trails on every single transaction initiated or executed on the GIFMIS platform. They also added that, with the introduction of the GIFMIS system in public financial management, information (that is, financial information) could be accessed electronically. Electronic access to information at any time according to the respondents promotes transparency in public financial management. This view is supported by the findings of Kiilu and Ngugi (2014). Kiilu and Ngugi (2014), assessed the effect of integrated financial management information system in the management of public funds concluded that, computerised integrated systems promotes transparency and accountability.

#### ***5.8.1.3 Monitoring and Control of Public Expenditure***

Analysis of the responses of the interviewees suggests that, the introduction of the GIFMIS system will facilitate effective monitoring and control of public expenditure. The GIFMIS system, according to the respondents, has budget and commitment modules that enables the government to control public spending. The budget module enables the government to set expenditure ceilings for the various MDAs and MMDAs. The commitment module, according to the respondents, ensures that the government is not committed to an expenditure or contract unless there are funds available for such expenditure items or contracts. The integration of

systems also facilitates the monitoring of transactions, and for that matter, public expenditure. These findings are consistent with the findings of the studies conducted by Kasumba (2009), Diamond and Khemani (2005) and Tsamenyi et al (2006). For instance, according to Kasumba (2009), the introduction of integrated systems in public financial management allows the government to track public expenditure, using the budget and commitment modules, and thus, provides a basis for controlling public spending. Also, Peterson (2007) notes that the commitment module is very important in avoiding public expenditure arrears. This confirms the assertion of one of the respondents that, the introduction of GIFMIS will completely eliminate “judgment debts” in the public sector.

#### ***5.8.1.4 Budget Formulation and Implementation***

As mentioned earlier, the GIFMIS system, according to the respondents, has a budget module that facilitates budget formulation and implementation. The budget module allows for tracking and collecting of actual expenditure data, which provides information or forms the basis for the formulation of subsequent periods’ budgets. The respondents also added that the budget module enables the central government to eliminate the occurrence of budget overruns and thus facilitate expenditure control. This finding confirms the assertions of Tsamenyi et al (2006) and Kasumba (2009). According to Tsamenyi (2006), the introduction of integrated systems in public financial management enables the government, through the budget and commitment modules, to set budget expenditure ceilings.

#### ***5.8.1.5 Real-Time Information Sharing***

The respondents noted that the GIFMIS system, an electronic information system retains the advantage of faster transaction and information processing. According to the respondents, the integrated nature of the system will facilitate access to public financial information electronically and in real-time. Thus, integrated systems permits easy sharing of information between and among public institutions. This will in turn facilitate effective public financial

decision. The findings of the study is consistent with extant literature on the benefits of integrated systems in public financial management (Diamond & Khemani, 2005; Rodin-Brown, 2008). For instance, according to Diamond and Khemani (2006) the introduction of IFMIS in public financial management improves the processing and sharing or access to government financial transactions. Thus, the GIFMIS system will promote efficient access to reliable financial data for effective public decision making such as budgeting.

## **5.8.2 GIFMIS Implementation Processes and Strategies**

### ***5.8.2.1 GIFMIS Implementation Process***

A discussion of the GIFMIS implementation processes are presented in this section.

#### **Formation of Implementation Teams**

The implementation of the GIFMIS programme comprised of six main stages, that is from start to the testing stage. The implementation of the programme commenced with the formation of various specialised implementation sub teams. The implementation teams comprised of both local and foreign or external consultants. It must be emphasised that, the formation of the various implementation teams was preceded by a consideration of the benefits of the GIFMIS system, the system requirements and the users of the system. The assessment of the needs or benefits and the requirements are consistent with the processes of the adopted countries that successfully implemented IFMIS in their public financial management systems (see Rodin-Brown, 2008).

Along the formation of the implementation teams, a project organisational chart was developed to guide the implementation process. The project organisational chart provided a framework of relationships among the teams and other key actors involved in the implementation of the programme.

### **Design of Chart of Accounts**

The second phase of the GIFMIS implementation process involved the design of a new uniform CoA. This was done to promote consistency in financial management systems across all MDAs and MMDAs. The introduction of a common uniform CoA will also facilitate easy preparation of government-wide financial reports and the sharing of information across all MDAs and MMDAs. The design of a common uniform CoA are also consistent with the implementation process of successful implementers of IFMIS in public financial management (see Rodin-Brown, 2008; Hendriks, 2012; Karanja & Nganga, 2014).

### **Review of Regulatory Framework**

The introduction of the GIFMIS would significantly affect the management of public resources and hence required adequate legal or legislative backing to provide effective foundation for the full operation of the programme. Mindful of this, the implementation team took necessary steps to provide adequate legal impetus for the effective implementation and/or operation of the GIFMIS system. The provision or formulation of needed legislations supports the arguments of Eriksson and Goldkuhl (2013), Diamond and Khemani (2006), and Peterson (2007). For instance, Eriksson and Goldkuhl (2013) argued that, appropriate regulation or legislation is fundamental to the success of any IT related programme in the public sector. However, contrary to the views of Diamond and Khemani (2006), the appraisal of the the financial regulatory framework did not precede the actual implementation of the programme. According to Diamond and Khemani (2006), the formulation of the legislative framework must precede the eventual implementation of the IFMIS programme in the public sector.

### **Stakeholder Engagement**

The implementation team identified the key stakeholders of the various MDAs and MMDAs. The identified key stakeholders were the various managers and chief executives of the MDAs and MMDAs. These conferences and workshops prepared the grounds for the implementation of the programme. Thus, the stakeholder engagements allowed the project secretariat to clearly articulate the goals of the reform programme. They helped prepare the minds of the leaderships of the MDAs and MMDAs towards the introduction of the new programme. This helped reduce, if not eliminate, resistance to the GIFMIS system to low levels. The attempt to engage and/or introduce the system to the key stakeholders of the MDAs and MMDAs could be seen as a change management strategy adopted by the implementation team. This is so because, at these conferences the leaders of the various MDAs and MMDAs were tasked to act as agents of change and champion the introduction of the GIFMIS system. This strategy is consistent with the arguments of Hong and Kim (2002) as well as the change management strategy proposed by Lewin (1947). Hong and Kim (2002) argued that effective change management processes require balancing forces in favour of the change against those who oppose the change.

### **Capacity Building**

The GIFMIS is a computerised system and thus, require personnel with adequate IT capacity operate. The implementation team organised a number of training workshops for selected personnel from the various MDAs and MMDAs. The aim of the training workshops were to equip the selected personnel with the requisite knowledge and skills needed to operate the GIFMIS system and to help build or enhance the capacity of the other personnel of the MDAs and the MMDAs. The capacity programmes are consistent with experience from countries that

have been successful with the implementation of IFMIS (See Rodin-Brown, 2008; Peterson, 2007).

### **Pilot Testing**

The final phase of the GIFMIS implementation process is the testing or pilot testing phase. Seven MMDAs were selected for the piloting of the GIFMIS system. The rationale behind the selection of the seven MMDAs was the availability of adequate infrastructure to support the GIFMIS system. The GIFMIS system require internet connectivity, computers and computer peripherals to efficiently operate. The analysis of the data indicates that most of the relatively smaller MMDAs lack these resources. This finding confirms the findings of Cernakova (2014). According to Cernakova (2014) the level of ICT adoption and infrastructural development in the public sector is relatively high in larger municipalities that, to some extent, are financially autonomous from the central government. Additionally, the pilot-testing of the GIFMIS system is also consistent with the implementation processes of Slovenia, Slovakia, Kosovo and Uganda (see Rodin-Brown, 2008; Peterson, 2007).

#### ***5.8.2.2 Implementation Strategies***

This section presents a discussion of the results or findings on the GIFMIS implementation strategies. The discussion of results on the GIFMIS implementation focuses on the implementation team, change management strategy, implementation approach as well as the choice of a suitable system.

#### **Composition Implementation Teams**

This section presents a discussion on the composition of the GIFMIS implementation teams. The discussion will focus on the various GIFMIS implementation sub-teams as well as the extent of involvement and their roles.

The analysis of the data suggest that there are about *seven* sub-teams involved in the implementation of the GIFMIS programme. These implementation sub-teams, according to the respondents, perform specific functions geared towards effective implementation of the GIFMIS project. Although there are involvement of experts or external consultants involved in the implementation of the GIFMIS project, local experts dominate the various implementation teams. Analysis of the data indicates that the roles of the external consultants, in the implementation of the GIFMIS programme, were limited to the provision of expert advice in specific aspects of the GIFMIS system implementation as well as help improve the capacities of local experts to manage the GIFMIS system after implementation. It is important to add that, the GIFMIS implementation

### **Implementation Approach**

Two main approaches have been identified in extant literature to be ideal for the implementation of complex IT or IS projects – the phased approach and the one-time approach. Analysis of the responses of the respondents suggests that, the phased approach was identified as an ideal approach to implement the GIFMIS system in Ghana’s public financial management system. The respondents noted that the choice of the phased approach was informed by such factors as cost, ease of use and acceptability of system by users as well as other benefits associated with phased approach. The respondents noted that one of the benefits associated with the phased implementation approach is that, challenges are identified and addressed earlier during the implementation stage of the programme. This therefore reduces possible future challenges to be encountered. For instance, one of the respondents stated the following.

*“This approach [phased approach] is the best approach to implement such a complex system. The phased implementation approach combines the benefits of top-down and bottom-up approach to implementing programmes. It allows for feedback. Problems could be spotted at the early stage of the implementation process and corrected.”* (PAO)

The reasons provided for the adoption of the phased approach, apart from ease of use and acceptability of system by users, are consistent with the views of Hendriks (2012) and Rodin-Brown (2008). Hendriks (2012) argues that, a phased implementation approach allows for regular monitoring and review of the project as it is being implemented. Regular monitoring and review of the implementation will thus aid in the early detection of potential future challenges.

### **System Choice**

In the implementation of IT or IS related programmes, the choice of system is as important as the development of the programme. There are two main system choice options – the customized system or the OTS system. Analyses of the data indicates that the OTS system was the preferred system for the implementation of the GIFMIS. The choice of an OTS system, according to the respondents, is relatively less expensive and promotes standardisation. The respondents noted further that, standardisation ensures that future system challenges could be easily resolved since the country can rely on the expertise of foreign experts. Further analysis of the data seem to suggest that the choice of the OTS system was informed by cost, available of expertise to help resolve possible future challenges that may be encountered as well as experience from other countries. The customised system, although retains the benefits of meeting needs specific environment, is relatively expensive. The choice of the OTS system is consistent with the views of Rodin-Brown (2008) and Peterson (2007). The authors argued that, experience from countries that have implemented an integrated financial management information system indicates that the OTS is the best system choice option.

### **Involvement of Other Public Institutions**

One of the intended benefits to be derived from the introduction and implementation of the GIFMIS system in public financial management is transparency and accountability. However, accountability could only be achieved if other state or accountability institutions effectively perform their functions or responsibilities. Audit departments or institutions have been identified as key actors in the promotion of transparency and accountability, especially in the management of public resources. Therefore, the involvement of such an institution in the implementation of the GIFMIS programme will facilitate the promotion of accountability in public financial management. Analysis of the data seem to suggest that the Ghana Audit Service (GAS) as well as the Internal Audit Agency (IAA) are involved in the implementation of the GIFMIS programme. The respondents hinted that, among the several GIFMIS implementation sub-teams is the quality assurance team. The quality assurance team is made up of mainly personnel from the GAS and IAA. The quality assurance teams' responsibilities include ensuring the procurement of quality systems as well as the configuration of the GIFMIS system in a manner that facilitates the audit of public institutions. The implementation of the GIFMIS system in public financial management according to the respondents will facilitate the work of the audit institutions in Ghana especially, the IAA. The respondents noted that, the GIFMIS system is configured in such a manner that, the system electronically pre-audits public transactions thereby facilitating the work of internal auditors.

The involvement of the GAS and the IAA is consistent with literature (see Ezz et al, 2009; Hendriks, 2012). For instance, Ezz et al (2009) highlighting the relative significance of inter-organisation collaboration argued that, one of the main challenges of in the implementation of IT based programmes in the public sector is the lack of collaboration practices between or among government agencies.

## **Change Management**

Change management is very critical in the introduction or implementation of new programmes or systems. The acceptability and success of the new programme or system largely depends on the effectiveness of the change management process. The implementation team recognised the importance of change management and developed strategies for managing the change from the manual system to computerised system. The GIFMIS implementation team includes a change management team. The responsibilities of the change management team include ensuring the smooth transition from the manual system to the computerised public financial management system. This involves putting in place measures to reduce resistance to the introduction of the GIFMIS system.

The team recognised the importance of the leadership of the various MDAs/MMDAs in the implementation of the GIFMIS programme. The implementation team convinced the leadership of these MDAs and MMDAs of the need to introduce a computerised integrated system in public financial management system and caused them to be change agents in their respective institutions. Thus, the change management team adopted a more cautious approach to managing change within the various institutions. The team tried to “win” the support of the leadership of the various MDAs/MMDAs. Thus, they adopted a formal approach to managing change. This approach emphasised the commitment of the top hierarchy of the various MDAs/MMDAs to the introduction of the new system. This approach is consistent with the views of Hong and Kim (2002), Laughlin (1999), Lewin (1947), Burnes (2004), Woodall (1996) and Guha et al (1997). Effective change management requires clear communication of the need for the change, the intended benefits, those who will be affected by the change and how the change will affect them (Hong & Kim, 2002; Lewin, 1947; Woodall, 1996). Woodall (1996) stressed that communication of the need for the introduction of the new system or programme lends legitimacy to the programme and thus reduces resistance. Hong and Kim

(2002) also argue identification of and balancing forces in favour of the change is very critical in the implementation of new systems or programmes.

### **5.8.3 Factors Affecting the Implementation of GIFMIS**

This section presents a discussion of the factors affecting the implementation of GIFMIS.

#### ***5.8.3.1 Legislation/Regulatory Framework***

The introduction of IT or IS related programmes affect organisation-wide activities and processes. The intended benefits of public financial management reform programme according to Hendriks (2012) could be realised if adequate legislations are introduced to provide the needed legal impetus. Analysis of the data seem to suggest that, the implementation team reviewed and evaluated the existing public financial management regulatory framework. They concluded that although the existing regulatory framework supported the introduction of the GIFMIS system, it was imperative to amend the legislations on the statutory funds. At the time of gathering the data, the legal team had submitted a bill to parliament for consideration. Apart from this, consolidation of the various revenue collection agencies under one authority (that is, the Ghana Revenue Authority) was part of the attempts or efforts to improve on the existing legislative framework to support the introduction of the GIFMIS programme. This attempt to improve upon the existing public financial management regulatory framework is consistent with the views of Hendriks (2012), Eriksson and Goldkuhl (2013), Diamond and Khemani (2005), and Peterson (2007). However, contrary to the views of Diamond and Khemani (2005), and Peterson (2007) the attempt to provide appropriate legal or regulatory lagged behind the implementation. Thus, the implementation started before the attempts were made to improve upon the existing public sector financial management regulatory framework. Diamond and Khemani (2005), and Peterson (2007) argued that the formulation of the legislative or regulatory framework must precede the eventual implementation of the reform programme in the public sector.

### ***5.8.3.2 The Role of Politics in GIFMIS Implementation***

Politics or political support has been identified to be critical in the introduction of reform programmes in the public sector. According to the respondents, the introduction and implementation of the GIFMIS programme in the public sector has received adequate political support. This political support is demonstrated by the active participation of the minister of finance and economic planning as well as the open declaration of the president of his support of the implementation of the programme. The minister of MOFEP was in charge of the GIFMIS programme as a deputy minister of MOFEP. The minister currently chairs the GIFMIS implementation steering committee. This thus suggests that the minister is committed to ensuring the effective implementation of the programme. Accentuating the commitment of the minister, one of the respondents had this to say

*“The current finance minister has taken this project [GIFMIS] as his baby.”*

Further analysis of the data suggests that, the stability of the current finance minister at the ministry of MOFEP has largely contributed to the sustained commitment and support for the implementation of the GIFMIS programme. The GIFMIS programme was introduced at that time when the current minister was the deputy MOFEP. The minister, in 2013, was confirmed as the substantive MOFEP. The current president has also demonstrated sustained commitment towards the implementation of the GIFMIS programme through his open or public declarations. This thus suggests that, the introduction and implementation of the GIFMIS programme has received relatively adequate executive support compared to the legislative support. It could however be inferred from the responses of the respondents that, the stability of the political governance system has contributed to the sustained political support for the introduction and implementation of the GIFMIS programme. The respondents consistently compared the political support demonstrated during the implementation of BPEMS to that of the GIFMIS. They argued that the GIFMIS programme has received unprecedented political support. This

political support trickled down to facilitate administrative support at the various MDAs/MMDAs. Almost the leadership of the various MDAs/MMDAs are political appointees and thus, it is not surprising that the introduction and implementation of the programme has received adequate administrative support. The active participation of the heads of the various MDAs/MMDAs in the implementation of the GIFMIS programme could also be said to have contributed to the sustained administrative commitment and support for the implementation of the GIFMIS programme. The leadership of the various MDAs and MMDAs were identified as important stakeholders and thus, were actively involved in the implementation of the programme. Such active involvement created a sense of ownership of the programme.

#### ***5.8.3.3 Availability of IT Infrastructure***

GIFMIS is an integrated information system hence, requires adequate IT resources to operate effectively and efficiently. Analyses of data suggest that most of the MMDAs lacked adequate IT infrastructure to support the implementation of the GIFMIS programme. This, according to the respondents slowed down the implementation of the programme in some of the MMDAs, especially the relatively smaller (in terms of revenue mobilisation) MMDAs. This finding confirms the arguments of Cernakova (2014), Hussein, Karim and Selamat (2007), and Krishna and Walsham (2005). According to Cernakova (2014), the level of ICT adoption and infrastructural development in the public sector is relatively high in larger municipalities that, to some extent, are financially autonomous from the central government.

NITA was tasked to provide the needed IT infrastructure to support the full implementation of the GIFMIS programme. Transaction processing centres have also been set up as temporary measure to facilitate transaction processing by MMDAs with inadequate infrastructure, especially internet connectivity.

#### **5.8.4 Implementation of GIFMIS: Accountability Relationships**

This section presents a discussion of the accountability relationships or frameworks in the implementation of the GIFMIS programme. The accountability relationships are evaluated using both the project organisational chart as well as the responses of the respondents. The analysis or evaluation of the accountability frameworks or relationships in the implementation of the GIFMIS programme begins with the identification of the key actors in the implementation of the programme.

The implementation organisational chart and the responses of the respondents interviewed indicate that the key actors (institutions) involved in the implementation of the GIFMIS programme are the MOFEP, the CAGD, the Ghana Revenue Authority (GRA), and development partners. Although the implementation organisational chart leaves out the development partners, the data gathered from the interviews suggest that the development partners were indirectly involved in the implementation of the programme. The data gathered suggest a diagonal accountability relationship between the project secretariat and the development partners. The development partners also shares a horizontal accountability relationship with the MOFEP (*see figure 5.3*).

The project secretariat coordinates the works or activities of about seven GIFMIS implementation teams. The implementation teams include cultural change and process management team, the budget team, finance and accounting team, treasury and cash management team, IT technical Team, payroll team and the legal support team. These implementation teams performed specific tasks or responsibilities towards the overall implementation of the programme. The activities of some of the implementation teams, to some extent depends on the activities or outputs of the some other implementation teams. Thus, the tasks of some of the implementation teams complement that of the other implementation teams. For instance, the IT technical team relies on the outputs of the functional implementation teams.

The functional implementation teams include the budget team, the finance and accounting team, the cash and treasury management team and the payroll team. This suggests the existence of horizontal accountability relationships among the various implementation teams. These various implementation teams are all jointly accountable to the project secretariat (director), depicting a vertical accountability relationship (see *figure 5.3*).

The project secretariat periodically presents reports of their activities and the progress of the project implementation. The steering committee, through the reports submitted by the secretariat, review or evaluate the work of the various implementation teams and take necessary actions. There exist a formal relationship between the project secretariat and the steering committee. This formal upward relationship between the secretariat and the project steering committee suggests indicates the existence of vertical accountability relationship between the project secretariat and the project steering committee.

Apart from the project steering committee, the project secretariat reports to the funding or development partners. Analyses of the data gathered indicate that, the development partners, apart from the provision of funds, are not directly or actively involved in the implementation of the GIFMIS programme. The project secretariat however does not have any direct upward relationship with the development partners. The communicative relationship between the secretariat and the development partners have elements of both the vertical and horizontal communicative relationships. The relationship between the project secretariat and the development partners depicts a diagonal accountability relationship. Project secretariat has a formal relationship with the development partners although according to the project organisational chart, the DPs are not directly above the secretariat. During review or evaluation sessions, the DPs are said to demand accountability from the project secretariat without going through the intermediary agencies or bodies such as the project steering committee. This is consistent with the views or position of the DFID (2008) practice paper. According to the DFID

(2008) practice paper, in a diagonal accountability relationship, stakeholders 'go behind' state or formal agencies to demand accountability directly from accountors. The diagonal accountability relationship emphasises fairness of outcomes and not procedural meticulousness.

The above suggests that, vertical, horizontal and diagonal accountability relationships are evident in the implementation of the GIFMIS programme. These accountability relationships indicate that institutions and agencies charged with various tasks were accountable to superior authorities and thus ensured that resources were channelled to appropriate use.

These notwithstanding further evaluation of the accountability relationships indicates that other key stakeholders have been side-lined in the accountability relationships. The broken lines in figure 5.3 illustrate this. This suggests that, the implementation of the GIFMIS programme is closed to citizen participation. This finding is consistent with the views of Goetz and Jenkins (2010). According to Goetze and Jenkins (2010), most public sector institutions are mostly not open to citizen participation.

### **5.8.5 GIFMIS Implementation Challenges**

GIFMIS is a very complex system and hence its implementation is likely to encounter some challenges. Analysis of the data suggest that, although the implementation of the GIFMIS programme encountered a number of challenges however, the dominant ones related to technical issues as well as staff capacity issues.

#### ***5.8.4.1 Technical Challenges***

GIFMIS is an integrated computerised financial information system hence, requires adequate infrastructure such as computers and accessories as well as internet facilities. Analysis of the data indicates that most of the MMDAs lacked adequate infrastructure to support the implementation of such a complex computerised system. Specifically, most of the MMDAs

lacked internet facilities adequate internet facilities to support the implementation of the programme. This thus confirms the findings of Soja (2008) and Kasumba (2009). The authors argued that, most developing countries have less developed IT infrastructure to support the implementation of complex computerised systems or programmes.

This notwithstanding, the NITA was contracted to provide the necessary IT infrastructure in the various MDAs/MMDAs. However, due to limited resources, NITA delayed in the provision of the needed IT infrastructure or facilities and hence, slowed down the implementation process.

#### ***5.8.4.2 Staff Capacity***

GIFMIS is a complex computerised financial information system and hence, requires that staff or users possess adequate IT knowledge and skills to operate the system. Analysis of the data suggests that the staff of the various MDAs/MMDAs lacked adequate IT knowledge and skills needed to operate the GIFMIS system. This finding confirms the findings of the studies conducted by Diamond and Khemani (2006), Soja (2008), Vickland and Nieuwenhujis (2005) and Schuppan (2009). For instance, according to Diamond and Khemani (2006), Soja (2008), and Schuppan (2009) concluded that, low staff capacities is one of the critical issues that affect the effective implementation and use IT related programmes especially in developing countries.

The implementation team, recognising the low levels of staff capacity, organised series of training programmes. They developed a programme known as “train the trainers (TTT)” in an attempt to improve the IT knowledge and skills of the staff of the various MDAs/MMDAs. Capacity building according to, Diamond and Khemani (2005) is one of the critical success factors in the implementation of IT related programmes. This notwithstanding, Hendriks

(2012) argues that, lack of personnel with the requisite knowledge and skills cannot be easily resolved by training only.

### **5.8.6 Theoretical Implications**

This section of the chapter presents the theoretical implications of the study. The findings of the study indicates that, no single theory would be adequate in providing explanations for the findings of the study. That is, the study employs portions or parts of identified theories to provide explanations for the findings of the study.

#### ***5.8.6.1 Legitimacy Theory and Motivation for Adoption of GIFMIS***

The findings of the study suggests that the introduction of the GIFMIS in Ghana's public financial management system is an attempt to promote efficiency and effectiveness in the public financial management. The introduction is intended to promote accountability and reduce the prevalence of corruption in the management of public resources. The public sector has long been subjected to criticisms, by the citizenry, for lack and transparency and high prevalence of corruption or corrupt practices. Therefore the introduction the GIFMIS could be seen as an attempt to enhance the citizen's confidence in the public sector. Thus, the implementation of the GIFMIS in public financial management seeks to achieve legitimacy in the eyes of the citizenry as well as donor and development partners.

The legitimacy theory posits that individuals and organisations act or behave in certain ways to gain acceptance by other individuals or institutions in the environment. This suggests that, the pursuit of reform programmes are aimed at achieving legitimacy in the eyes of immediate stakeholders rather than economic efficiency. Thus, the attempt to promote accountability and transparency in public financial management is an attempt to gain acceptance by the citizenry and other development partners. The legitimacy theory is thus, an appropriate theory for

explaining the motivations for the adoption and implementation of public financial management reform programmes in developing economies.

#### ***5.8.6.2 Force Field Theory and GIFMIS Implementation Issues***

The force field theory suggests that there are forces or factors within and outside the environment of the organisation or institution that reinforces or militates against the actions achievement of objectives of the entire organisation or institution. The results from the data analysis indicates that, unlike the implementation of the BPEMS programme, the implementation of the GIFMIS programme has receive sustained significant political and administrative support and commitment. Apart from the political support and commitment, the GIFMIS implementation has not been deprived of adequate financial resources. The provision of the adequate financial resources is attributed to the fact that a significant portion of the programme is being provided by donor partners. In addition to these, there is dedicated unit of the CAGD responsible for the implementation of the programme. This ensures that, maximum attention and efforts are channelled towards the effective implementation of the programme.

These notwithstanding, the implementation of the programme encountered some challenges – inadequate IT infrastructure and staff capacities. These challenges, especially the inadequate infrastructure somewhat slowed down the implementation process. Following form the findings of the study, it could be concluded that, the adequate political support, the adequate provision of financial resources and the dedicated unit responsible for the implementation constitute the enabling factors of the implementation. However, the inadequate infrastructure and staff capacity served as the inhibitors. These supports the propositions of the force field theory. Thus, the force field theory could be employed to explain the implementation issues associated with the implementation of public financial management reform programmes.

### ***5.8.6.3 Legitimacy-Force Field Theory and GIFMIS Implementation***

This section presents a discussion of how the adopted theories complement each other in providing explanations for the findings and conclusions of the study.

The researcher adopted the force field and legitimacy theories in attempt to provide explanations for the findings of the study. While the legitimacy theory attempts to proffer explanations for individual or organisational behaviour, the force field theory help identify and explain how factors or forces, within the individual or organisational environment, reinforce or suppress behaviour. Although the two theories seem to provide separate explanations, the findings or outcome of the study suggest that the two theories complement each other. For instance, the findings and conclusions of the study demonstrate the reinforcement of the assumptions of the legitimacy theory buttressed by the adoption and implementation of IFMIS in Ghana. The adoption and implementation of GIFMIS is aimed addressing the weaknesses in Ghana. This move suggest an attempt to attain legitimacy in the sight of the citizenry and other supranational bodies. Findings of the study suggest that the implementation of the GIFMIS programme, unlike previous public financial management reform programmes, has received tremendous political support and commitment. The findings also suggest that the GIFMIS programme, unlike previous reform programmes, is local initiative, thus creating a sense of ownership of the programme. The creation of the sense of ownership of the programme is strengthened by the composition of the various implementation teams.

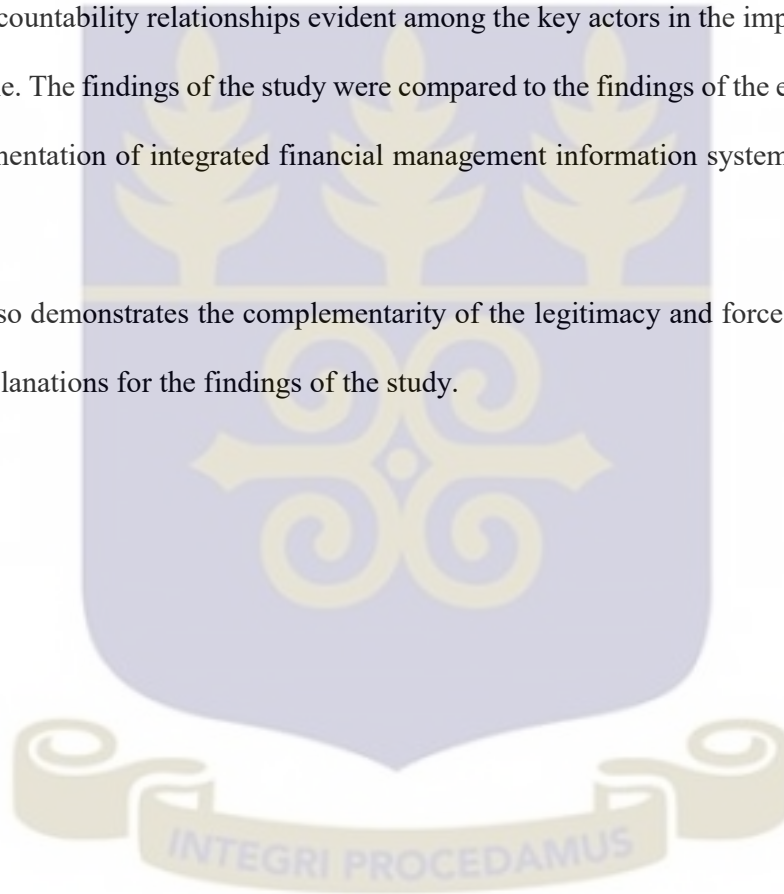
Additionally, the findings of the study suggest that political support and the composition of the various implementation teams have been very critical to the relative smooth nature of the implementation processes. The demonstration of continued and/or sustained political support also suggest an attempt to gain political legitimacy. Thus, the two factors coupled with other implementation strategies have supported the adoption and implementation of IFMIS in Ghana.

The foregoing confirms the complementarity of the legitimacy theory and the force field theory in providing explanations for the implementation of GIFMIS.

## **5.9 Chapter Summary**

This chapter presented an analysis and discussion of the findings of the study. The analysis and discussion focused, first, on the nature and objectives of the GIFMIS programme. Secondly, the discussion focused on the implementation and/or GIFMIS implementation strategies as well as the accountability relationships evident among the key actors in the implementation of the programme. The findings of the study were compared to the findings of the extant literature on the implementation of integrated financial management information systems in the public sector.

The author also demonstrates the complementarity of the legitimacy and force field theory in providing explanations for the findings of the study.



## CHAPTER SIX

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 6.1 Introduction

This chapter presents the summary, conclusions as well as recommendations for the study. This chapter is organised into four main sections. The first section of the chapter presents the summary of key findings of the study. The second and third sections of the chapter presents the conclusions of the study and recommendations for the study respectively. Directions for future studies are also presented in the fourth section of the chapter.

#### 6.2 Summary of Key Findings

This section presents a summary of the key findings of the study. The presentation of the key findings of the study is organised into paragraphs. Thus, each paragraph focuses on a major finding of the study.

Most countries in sub-Saharan Africa, including Ghana, have embarked on a number of reform programmes aimed at promoting efficiency in the public sector. Public financial management reform programmes have been dominant in the public sector reform programmes. This notwithstanding, most of these public financial management reform programmes have failed to produce their intended benefits. Implementation have been identified as the main obstacle to the realisation of the intended benefits of these public financial management reform programmes. The main objective of the study was to evaluate the implementation of GIFMIS in Ghana's public financial management system. The study also sought to examine the motivation(s) for the development and introduction of GIFMIS in Ghana's public financial management system.

The results of the study reveals that, the introduction of the GIFMIS system in Ghana's public financial management system, unlike previous public financial management reform

programmes, is an internal initiative. The programme, although a local initiative, is a re-introduction of a previously failed programme, BPEMS. Analysis of the data reveals that, the introduction of the GIFMIS programme was mainly motivated by the benefits associated with a computerised integrated financial management system. Promotion of transparency and accountability, facilitation of budget formulation and implementation, corruption reduction and facilitation of public financial information for effective decision making were the benefits identified.

Furthermore, analysis of the data reveals that the implementation strategies and processes of the GIFMIS system have been informed by the implementation of the BPEMS programme. For instance, local experts formed the core of the GIFMIS implementation team. Although external consultants are involved in the implementation of the GIFMIS system, they played limited roles. Some of the local experts have been attached to the foreign experts. This was done to facilitate transfer of expertise and strengthen local capacity to manage the GIFMIS system beyond the implementation phase. It also worthy of note that the implementation team has remained relatively stable compared to the composition BPEMS implementation team.

In addition to the above, the implementation of the GIFMIS, unlike that of the BPEMS, has received tremendous political and administrative support and commitment. The political support is demonstrated through open declaration backed by actions. The tremendous political support and commitment coupled with the stability of the implementation team could however be attributed to the stable political governance system. The implementation of the BPEMS went through two political governance system. The introduction of the BPEMS programme failed to progress past the implementation stage. Two of the reasons for the failure of the BPEMS programme were the lack of political support and commitment as well as frequent changes in the composition of the implementation team.

Technical issues as well as inadequate staff capacity in the various MDAs/MMDAs were identified as the major impediments to the effective implementation of the GIFMIS system. For instance, the delays in the implementation of the GIFMIS system were attributed to the inadequate IT infrastructure, especially internet connection facilities in the various MDAs/MMDAs.

Detailed examination of the accountability frameworks established in the implementation of the GIFMIS programme revealed that the citizenry have been “sidelined”. The formulation of the project organisational chart preceded the actual implementation of the programme. The organisational chart provided the levels or lines of communication between and among the various key actors in the implementation of the programme. However, there were no formal medium of communicating with the citizenry as far as the implementation of the GIFMIS programme is concerned.

### **6.3 Conclusions**

This section of the chapter presents the conclusions of the study. The conclusions drawn herein are informed by the findings of the study.

From the presentation and analysis of the data, it can be concluded that the motivation for the introduction and implementation of the study is well articulated and understood by all the stakeholders interviewed during the data-gathering phase of the study. All the stakeholders provided coherent and consistent responses to the motivation for the introduction of the GIFMIS in Ghana’s public financial management system as provided by the respondents. The implication of this is that there is unanimity of focus among the stakeholders involved in the implementation of the GIFMIS programme. This unanimity of focus will facilitate the effective implementation of the programme.

Furthermore, it can be concluded that, the introduction of the GIFMIS system in Ghana's public financial management system is a local initiative. The implication of this is that, it creates a sense of ownership of the system of reform programme. The increased sense of ownership of the programme is enough to motivate stakeholders to work towards the effective implementation of the programme. Thus, the sense of ownership of the programme serves as a catalyst to stimulate adequate efforts towards effective implementation of the programme.

In addition to the above, experience from the implementation of previous public financial management reform programmes have been critical in the implementation of the GIFMIS system. For instance, experience from the failed implementation of the BPEMS informed such decisions as the composition of the implementation team, the choice of system as well as the involvement of other state institutions in the implementation of the GIFMIS programme.

In addition, another conclusion that can be drawn from the analysis of the data is the significant role of politics and stable political governance system or regime in the implementation of public financial management reform programmes, especially in developing economies. Analyses of the data revealed that, the stability of the GIFMIS implementation team as well as the tremendous political support for the programme is as a result of the stability in the political governance system or regime. The implication of this sustained political support is that, the stakeholders involved in the implementation of the programme will feel confident knowing they have the support of a superior authority.

Furthermore, it can be concluded from the findings of the study that the citizenry who are major stakeholders have been 'closed off' from participating in the implementation of the GIFMIS programme.

#### **6.4 Contribution of the Study**

The previous sections presented the summary and conclusions of the study. This section thus presents the contribution(s) of the study. This study examined the implementation of public sector financial management reforms in Ghana, with particular emphasis on the implementation of the GIFMIS programme. The researcher also examined the accountability relationships among the key actors involved in the implementation of the GIFMIS programme. This study contributes immensely to both literature and theory.

First, this study makes significant contribution to the extant literature on the implementation of public sector financial management reform programmes, especially IT related programmes, in sub Saharan Africa. Majority of the extant literature on public sector financial management reform tends to be overly concentrated on the post-implementation benefit neglecting such issues as the implementation processes of these programmes. this study did not only examine the implementation of the GIFMIS, as a public sector financial management reform programme, it also examined the accountability relationships among the various key actors involved in the implementation of the programme. The study also contributes to existing literature by highlighting the importance of stability in the political governance system of a country to the effective implementation of public financial management reform programmes in a developing country. The study also identifies the significant static factors that influences the implementation of IFMIS in a developing country.

Secondly, the study also makes valuable contribution to research by extending the application of the legitimacy theory and the force-field theory in public financial management implementation studies. It is important to point out that, the researcher did not impose these theories on the study. Findings from the study were consistent with the propositions of the legitimacy theory and the force-field theory.

## 6.5 Recommendations

This section of the chapter presents recommendations from the study. The recommendations are based on the findings and conclusions drawn from the study. The study provides recommendations on policies that must be formulated to facilitate effective implementation of future public sector reform programmes.

First, the findings of the study indicate that the implementation of the GIFMIS reform programme has received adequate and sustained political support. The study also found that the stability in the political governance system accounted for this sustained political support and commitment. Thus, stability in the political governance system is very critical in securing adequate and sustained political support and commitment for the introduction of reform programmes in the public sector. To this, it is recommended that, in future, the timing for the introduction of new public financial management reform programmes must be taken into consideration.

In addition to the above, it is recommended that the legislature also demonstrate adequate commitment and support to the implementation of the GIFMIS programme. Legislative support and commitment could be demonstrated by the willingness and commitment to providing the needed legislative and legal framework to support the implementation of the GIFMIS programme. Thus, the support and commitment of the executive arm of government, although very critical, is not enough for the implementation of the public financial management reform programmes.

Furthermore, local experts must be involved in the implementation of future public financial management reform programmes. The involvement of local experts creates a sense of ownership of the reform programme and hence, efforts will be directed towards effective implementation. These local experts must be drawn from the various institutions intended to

use or benefit from the introduction of such public financial management programmes. The involvement of experts from the various MDAs intended to use or benefit from the introduction of reform programmes reduces, if not eliminate, resistance to the introduction of such programmes in future. Thus, to ensure effective implementation of future public financial management reform programmes, key personnel (forces) from the various MDAs/MMDAs must be identified at the initial stages and involved in the implementation process.

The introduction of new public financial management reform programmes requires that changes be made in existing laws and legislations to provide adequate legal impetus for the reform programme. It is therefore recommended that, the introduction public financial management reform programmes in future must be preceded by the provision of adequate legislative framework. The provision of the appropriate legislative before actual implementation of these programmes will facilitate smooth and effective implementation of these reform programmes.

The study revealed that one of the major challenges encountered during the implementation of the GIFMIS programme was the low levels of staff capacity to operate the system. GIFMIS is a complex computerised system hence, requires personnel with requisite IT knowledge or capacity to operate the system. To this, the study recommends that in the short term, adequate training programmes, especially IT programmes be provided to improve upon capacities of the staff of the various MDAs/MMDAs. In the long term, the study recommends that measures must be put in place to attract and retain personnel with requisite IT capacity or knowledge. This will include the provision of competitive working conditions for existing and prospective personnel. Poor conditions of service have been identified as one of the main reasons for the lack of personnel with requisite skills and knowledge in the public service. Hence, the provision of competitive conditions of service will curb the problem of loss of key personnel to the private

sector. It will also facilitate the attraction of personnel with requisite capacity into the public sector.

Furthermore, the lack of adequate IT infrastructure was identified as a major challenge in the implementation of the programme. First, the study recommends that, the TPCs must only be seen as temporary solutions to address the lack of adequate infrastructure in the MDAs/MMDAs. The NITA must be adequately resourced to provide the needed IT infrastructure in the various MDAs/MMDAs.

## **6.6 Limitations of the Study**

The qualitative research approach has been criticised for its inability to address issues of validity, generalisation and reliability (Myers, 2000). The limitations of the study as well as measures taken to reduce the impact of these limitations are discussed in the following paragraphs.

Critics argue that, the qualitative research approach retains the limitation of the inability to generalise the outcome or findings of the study. Thus, the choice of the qualitative case study approach means that the researcher may not be able to generalise the findings of the study beyond the scope of the study. This implies that, the findings and conclusions drawn from the examination of the implementation of IFMIS in Ghana may not reflect situations in other areas or countries implementing the IFMIS programme. It is important to note that the researcher does not seek to generalise the findings and conclusions of this study, it is important to recognise or not this limitation.

Additionally, although the findings of this study may not be generalised, the findings and conclusions of this study can be generalised analytically. This means that, the findings and conclusions of this study can be generalised under similar environments or settings. Furthermore, the findings and conclusions from this study may provide reasonable guide to the

examination of the implementation of IFMIS in other developing countries. Thus, findings and conclusions drawn from qualitative case studies may be suggestive of what may be found other similar environments or organisations.

The reliability of research relates to the accuracy of the research methodology and the data collection techniques. It considers the degree of producing similar results or findings using same approach adopted by the researcher irrespective of the period. According to Miles and Huberman (1994), reliability defines the level of confidence that any person using the same data collection instrument will reach the same or similar conclusion.

Although the researcher put in place measures to achieve credibility and reliability of the data gathered, it is also important to note that the qualitative research paradigm believes that the interpretation of qualitative data may be susceptible to the personal biases of the researcher. Additionally, the interpretation of qualitative data is time and context bound.

The researcher, in an attempt to enhance reliability relied on multiple sources. The researcher relied on both primary and secondary sources. The primary source comprised of information or data gathered from the interview of personnel involved in the implementation of the GIFMIS programme. The researcher complemented this with information contained in other publicly available information. The measures put in place by the researcher are consistent with the views of Silverman (2004). According Silverman (2004), the use of multiple methods and sources to confirm data gathered is one way of increasing reliability in qualitative research.

Validity concerns drawing inferences about cause-effect relationships. It underscores the predictive ability of predictor variables on a dependent variable. Validity is synonymous with positivist studies. This study however does not seek to establish cause-effect relationships among variables hence, making it inappropriate to subject it to validity test. The researcher set

out to examine the implementation of IFMIS programme in Ghana. The study thus provides an extensive account of the GIFMIS implementation strategies.

### **6.7 Future Research Directions**

Given the limitations of the study, the researcher makes the following recommendations for future studies.

It is recommended cross-country studies be undertaken to evaluate or examine the implementation of IFMIS in other sub-Saharan African countries. Such studies will facilitate the development of an appropriate framework for the implementation of IT related public financial management reform programmes.

In addition to the above, future studies or research on the implementation IT related reform programmes can evaluate the significant impact of the identified factors that affect the implementation IFMIS programmes in the public. A study of this nature can adopt a positivist research approach to assess the impact of the individual factors on the effective implementation of IT based public financial management reform programme.

### **6.8 Chapter Summary**

This chapter presented a summary of the key findings of the study, conclusions as well as recommendations. The author dwelt on portions of the legitimacy and force field theories to provide explanation for the findings of the study. Limitations and recommendations or suggestions for future research were also presented in this chapter.

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## APPENDIX

### Interview Guide

#### Section A: Background of Respondent

1. Respondents position in the organisation
2. How long have you have you held this position?
3. How long have you worked in this institution?
4. How does your role affect the implementation of GIFMIS?

#### Section B: Background/Overview of GIFMIS

5. In your view, what is GIFMIS?
6. How different is GIFMIS from Budget and Public Expenditure Management System (BPEMS)?
7. What is the scope of GIFMIS?
8. What does GIFMIS mean for public financial management? How will the introduction GIFMIS affect public financial management?

#### Section C: Motivation(s) for the Adoption of GIFMIS

9. What is/are the motivation(s) for the adoption and implementation of GIFMIS?
10. Who are the key actors?
11. Which institution initiated the GIFMIS programme?
12. Has the motivation for the implementation of GIFMIS changed? Why?

#### Section D: Implementation

**a) Implementation Team**

13. What is the background of the implementation team? The involvement of external consultants

14. What role(s) do the external consultants play?

**b) IT Infrastructure**

15. Does the current IT infrastructure support the GIFMIS programme?

16. Have there been attempts to improve the IT infrastructure in the various MDAs/MMDAs? What are they?

**c) Legislation**

17. Does current public financial management laws/regulations support the GIFMIS project?

18. Has there been any attempt/changes in public financial management laws/legislation to support the GIFMIS project?

**d) Change Management**

19. What has been the strategy to managing change?

20. In your view, do you suspect/know any group(s) not in support of implementing the GIFMIS programme? Any Reason for the resistance or otherwise?

**e) Political/Administrative Support and Commitment**

21. In your view, do you think this programme has received adequate political and/or administrative support? Any reason?

22. How is this political or administrative support or commitment demonstrated?

**f) Personnel**

23. Do personnel at the various MDAs/MMDAs possess adequate skills or knowledge to use the GIFMIS?
24. Have there been attempts to improve the capacity of personnel to operate the GIFMIS system? How? Who were/are the facilitators?
25. Are there user modules to assist personnel?

**g) Implementation Processes**

26. What has been the implementation strategy? For example, phased approach or one-time approach, top-town or bottom-up approach
27. Are there documents on the implementation strategy?

**Section E: Implementation Challenges**

28. What challenges have been encountered implementation of the GIFMIS programme?
29. What have been the strategies to address these challenges?
30. What future challenges do anticipate will be encountered in the introduction of IFMIS?

