# IMPLIMENTATION AND EFFECT OF INTERGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM ON PUBLIC FINANCIAL MANAGEMENT IN KISUMU COUNTY, KENYA

 $\mathbf{BY}$ 

# LETING CYNTHIA JEPCHUMBA

# A RESEARCH PROJECT SUBMITED IN PARTIAL FULFILLMENT OF THE REQUIMENT FOR THE DEGREE OF MASTER IN BUSINESS ADMINISTRATION

# SCHOOL OF BUSINESS AND ECONOMICS

MASENO UNIVERSITY

# **DECLARATION**

DECL	$\Delta R$	ΔΤΙ	ON	$\mathbf{R}\mathbf{V}$	THE	CTI	IDEN	Т
$D$ L $\cup$ L	$\Delta$ IN	$\Delta$	C) I N	DI		o		

This is to confirm that the research project is my own original work and has not been presented
for academic credit anywhere else.
Sign Date
LETING CYNTHIA JEPCHUMBA
PG/MBA/00099/2012
DECLARATION BY THE SUPERVISOR
This research project was done under my supervision and has been submitted for examination with my approval.
Sign Date
Dr. OBANGE, N.
Department of Business Administration
Maseno University

# **ACKNOWLEDGEMENT**

I would like to sincerely acknowledge the support of my supervisor Dr. Obange, Nelson for the encouragement and support he accorded me. In addition, I am grateful to my family members for the moral and material support that they accorded me.

# **DEDICATION**

I dedicate this research to my parents, and my children who constantly pushed me to be the best I can. Thank you. To my husband who stood by me through the toughest of time.

# **ABSTRACT**

Integrated Financial Management Information systems (IFMIS) is believed to enhance Public Sector financial management by providing real-time information used in decision making by managers. However, while other studies have noted positive contribution of IFMIS on realtime information, others are of contrary opinion, hence the view that IFMIS contribution in real-time is case specific therefore the need to examine specific cases of IFMI Son Public Finance Management (PFM). This study therefore, examined the implementation and effect of IFMIS on Public Finance Management at Kisumu County National Treasury, Kenya. The specific objectives were: to establish the modules of IFMIS used; to establish the extent of implementation of IFMIS modules, and to determine the effect of IFMIS modules on PFM at Kisumu County National Treasury. This study was anchored on Contingency and Meta theories of accounting information systems to cater for the different management systems and the regular changes in information systems. A correlation research design was used to establish the effect of IFMIS. A saturated sample of 24 staff who interact directly with IFMIS was used in this study. Secondary data was sourced from financial records of the Kisumu County National Treasury while primary data was collected by closed ended questionnaires. The questionnaire was piloted at Kisumu County government Treasury to ensure reliability and validity then administered at Kisumu County National Government Treasury. Data was analyzed using descriptive statistics and linear regression techniques. Findings revealed that IFMIS modules contribute 66% change (R<sup>2</sup>=0.660) in PFM at Kisumu County National treasury. The study established that not all IFMIS modules had been implemented at Kisumu county National treasury (plan to budget 93.8%, procure to pay 93.8%, record to report 100%, revenue to cash 100%, reengineering for business result 6.3%s, ICT to support 68.8%, communicate to change 75%). The study further established that not all IFMIS modules were fully functional at the treasuries (plan to budget 68.8% partially implemented, procure to pay 81.3% partially implemented, record to report 93.8% partially implemented, revenue to cash 87.5% partially implemented, and reengineering for business results 81.3% partially implemented, ICT to support 50% partially implemented, communicate to change 50% partially implemented .Some modules had a positive effect on PFM (Procure to pay (0.667; t=1.660) not significant, record to report (.728; t=0.939) not significant, ICT to support (1.111; t=2.508) significant, the modules with a negative effect on PFM were (plan to budget (0.512; t=2.227) significant; revenue to cash (1.455,t=2.508) significant; reengineering for business results (0.419; t=1.133) not significant; communicate to change (0.789; t=2.264) significant. The study concluded that IFMIS modules have had a significant effect on PFM at Kisumu county National treasury. The study recommended that all IFMIS modules should be implemented and fully operational in all sub-county treasuries and the modules that have a positive effect on PFM should be improved further while those with a negative effect should be investigated and improved to ensure a better PFM.

# TABLE OF CONTENTS

TITLE PAGE	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
DEDICATION	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF ABBREVIATIONS	viii
OPERATIONAL DEFINITION OF TERMS	ix
LIST OF FIGURES	X
LIST OF TABLES	xi
CHAPTER ONE	1
INTRODUCTION	1
1.0 Introduction	1
1.1 Background of the study	1
1.2 Statement of the Problem	5
1.3 General objective	5
1.4 Research questions	6
1.5 Scope of the study	6
1.6 Significance of the study	6
1.7 Conceptual Framework	7
CHAPTER TWO	8
LITERATUREREVIEW	8
2.1 Theoretical review	8
2.1.1 Contingency Theory	8
2.1.2 Meta Theory	9
2.2 The Components of IFMIS	11

2.3 Finance Management	13
2.4 Empirical Review	16
2.4.1 Modules of IFMIS	16
2.4.2 Extent of Implementation of IFMIS Modules	18
2.3 Summary of Literature Review	20
CHAPTER THREE	22
RESEARCHMETHODOLOGY	22
3.1 Research Design	22
3.2 Target Population and Sample Frame	22
3.3 Data Collection	22
3.3.1Data Collection procedure	22
3.3.2 Data collection Instruments	23
3.4 Data Analysis Techniques	23
CHAPTER FOUR	25
RESULTS AND DISCUSSIONS	25
4.1 Response Rate	25
4.2General characteristics of the respondents	25
4.3 Modules of IFMIS implemented at Kisumu County National Treasury	26
4.4 Extent of implementation of the IFMIS modules at Kisumu County National T	reasury.27
4.5 Effect of IFMIS modules on Public Financial Management	30
4.5.1 Regression Model Coefficients	30
4.5.2 Model summary	31
5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATION	<b>NS</b> 32
5.2 Summary of Findings and Discussions	32
5.3 Conclusion	33
5.4 Recommendation	33
5.5 Suggestions for further research	33

# LIST OF ABBREVIATIONS

CBK- Central Bank of Kenya

CIDA- Canadian International Development Agency

CPI - Corruption Perception Index

EFT- Electronic Funds Transfer

E.U- European Union

G PAY- Government Payment

G.O.K- Government of Kenya

ICT - Information Communications Technology

I I A- Institute of Internal Auditors

I.T - Information Technology

IFMIS - Integrated Financial Management Information Systems

KENAO- Kenya National Audit Office

KRA- Kenya Revenue Authority

MDGs - Millennium Development Goals

MTEF- Medium Term Expenditure Framework

PDM - Public Debt Management

MDGs - Millennium Development Goals

MTEF- Medium Term Expenditure Framework

PDM - Public Debt Management

PFM- Public Financial Management

PIN- Personal Identification Number

SIDA- Swedish International Development Agency

STD- Standard Tender Document

STP - Straight Through Processing

URA- Uganda Revenue Authority

# **OPERATIONAL DEFINITION OF TERMS**

**Integrated Financial Management Information Systems**: an information system that tracks financial events and summarizes financial information.

**Integrated**: two or more components merged together into a single software; an application combining word processing database management, spreadsheet function and communication in to a single package.

**Public Financial Management**: the budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements by which countries receive funds allocated them and record their use.

**Systems**: An aggregate of things combined to form a whole independent group of items forming a unified combination of components that act together to perform a function not possible with any individual part.

# LIST OF FIGURES

Figure 1.1: Conceptual Framework Showing the Relationship between IFMIS Modules an	d
PFM	7
Fig 2.1: Conceptual model by Alrawi and Thomas (2007)	9
Figure 2.2: Meta Theory Model for AIS Research	0
Fig 2.3: Components of a Typical IFMIS	2
Fig 2.4: Public Finance Management Cycle	3
Figure 4.1: Extent of use of different modules in Kisumu County Treasury2	7
Figure 4.2: Extent of implementation of IFMIS modules in Kisumu County treasury	8

# LIST OF TABLES

Table 4.1: Characteristics of the respondents	25
1	
Table 4.2: Effect of IFMIS Modules on PFM	30
Table 4.2. Lifect of It will would would be a superior of the	50

# **CHAPTER ONE**

# INTRODUCTION

#### 1.0 Introduction

A strong public financial management system is a catalyst for economic growth and development. It ensures that the government raises, manages and spends public resources in an efficient and transparent way with the aim of improving service delivery (Mwenesi, 2014). The World Bank (2013) describes Public Finance Management for countries, as the budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements by which countries receive funds allocated them and record their use.

# 1.1 Background of the study

Governments in developing countries are always looking for methods and systems to modernize and improve their Public Financial Management (Chene, 2009). According to the World Bank (2005), sound PFM supports aggregate control, prioritization, accountability and efficiency in the management of public resources and delivery of services which are critical to the achievement of public policy objectives, including achievement of the Millennium Development Goals (MDGs). In addition, sound Public Financial Management systems are fundamental to the appropriate use and effectiveness of donor assistance. This is because aid is increasingly provided through modalities that rely on well-functioning systems for budget development, execution and control. PFM work should be linked to a robust monitoring and evaluation framework that clearly articulates the gains in PFM system performance that are sought or achieved.

Over the last decade, governments have undertaken a number of PFM reforms aimed at enhancing accountability and transparency. These reforms have targeted the core PFM systems of budget formulation and execution of public procurement, revenue collection, and audit. The automation of PFM process is one of the reforms (Rodin-Brown, 2008). The introduction of Integrated Financial Management Information Systems (IFMIS), Electronic Funds Transfer (EFT) and Public Debt Management Systems among others have promised one realization that government can effectively leverage existing and emerging technology to enhance the pace of reforms. Kiilu and Ngugi (2014) in their study established that IFMIS was effective in the management of public funds through

the automation of government processes which provide timely and accurate financial information. Njonde and Kimanzi (2014) established that IFMIS had improved public finance management at Nairobi County. However there has been no research testing the effect of IFMIS modules on public financial management at the rural counties. This research therefore seeks to examine the effects of IFMIS modules on Public Financial Management

According to Diamond and Khemani (2005), IFMIS is the computerization of public expenditure management process and include budget formulation, budget execution and accounting with the help of a fully integrated system for financial management of line ministries and other spending agencies. IPSOS (2013) further describe IFMIS as a fiscal financial management information system that bundles all financial management functions into one suite application. It has also been defined as an IT-based budget accounting system designed to assist government entities to plan, budget, request spending, report financial activities and deliver more services to the public.

According to Diamond and Khemani (2005), the establishment of IFMIS has become an important benchmark for the countries budget reform agenda as a precondition for achieving effective management of budget resources .According to Chene (2009), a well-designed IFMIS should be a management tool that provides a wide range of financial information and impact on corruption. Baraka and Cain (2001) state that as a management control, aggregate spending and deficit prioritization expenditure across policies should be programmed and projects designed to achieve efficiency and equality in the allocation of resources with a view of achieving outcomes and producing output at the lowest possible costs.

IFMIS not only stores all financial information relating to current and past years spending but also stores the approved budgets for those years details on inflows and outflows as well as complete inventories of financial asset and liabilities (Rodin-Brown,2008). This is done through integration. Integration can be defined as melding existing systems and new technology to form more capable systems that are intended to take on additional tasks, exhibit improved performance and improve existing systems. Rodin-Brown (2008) identifies the following as the basic features necessary for integration: Standard data classification for recording financial events, internal controls over data entry, transaction

processing and reporting, common process for familiar transactions and system design that eliminates unnecessary duplication of data.

According to Rodin-Brown(2008) IFMIS consists of various components including the general ledger, cash management, commitment control, accounts payable, accounts receivable, budget preparation, procurements and purchasing, contract management, asset and debt management, project ledger, grants management, human resource management, payroll and revenue management. According to Chene (2009) The modules implemented in the Slovak republic consists of general ledger, central banking and treasury and trading. According to McCarthy & Chisala (2009) those implemented in Tanzania consist of general ledger, cash management, commitments planning and control, inventory control, electronic funds transfer and purchasing reporting modules have been implemented.

The major effect of IFMIS modules on Public Financial Management is that it enables prompt and efficient access to reliable financial data. It also helps to strengthen government financial control thus improving the provision of government services through raising the budget process to higher levels of transparency and accountability in expediting government operations (National Treasury, 2011). Accounts receivable, purchasing accounts payable, inventory and reporting. According to the IFMIS Strategic plan, some of the modules at the Kenya National treasury headquarters are Plan to budget, procure to pay, record to report, revenue to cash and communicate to change. The modules that have been implemented in Kenya's rural counties have yet to be established. This begs the question of which modules have been implemented. This research therefore seeks to establish the IFMIS modules that have been implemented.

The scope and functionality of IFMIS differs from basic general ledger accounting applications to comprehensive systems (Rhodin-Brown, 2008). According to Chene (2009) IFIMIS in Slovak republic has been fully implemented, in Kosovo the core system was implemented first and has expanded ever since .In Uganda IFMIS has been implemented in 22 out of the 25 ministries Semakula (2012). In Kenya 95% of the ministries at the headquarters have implemented IFMIS Muigai (2012) .There exists a gap as to what extent the modules in Kenya's rural counties have been implemented. The study therefore seeks to establish the extent to which the IFMIS has been implemented at Kisumu county Kenya.

Some of the challenges faced by IFMIS are inadequate planning, poor communication, lack of political goodwill, shortage of management capacity and resources. Chene (2009) categorizes the challenges into: Political challenges (which includes lack of ownership of system, political goodwill), poor change management, technical challenges (like poor design, lack of resources and management capacity) and, institutional challenges. Hendricks (2012) found that lack of commitment; inadequate institutional capacity and technical challenges were risk factors for successful implementation. In order for IFMIS to be successful, there must be political goodwill, capacity building and training, functional legal framework, proper change management and assurance on project commitment.

Dorotinsky (2005) reasoned that although IFMIS can be a very powerful tool against corruption, it doesn't guarantee that the data is both reliable and complete. IFMIS may be associated with new corruption opportunities through monopolization of information access and control. This is due to the management and storage of all the information in a single database with few specialists having control over accounts, budgeted cash and debt management data.

Some of countries where it has been implemented include: Slovak Republic where it has been very successful due to political goodwill. In Kosovo, IFMIS was successful and runs in 3 different languages. Ghana has also implemented IFMIS but has not been as successful because local knowhow and capacity have been potential impediments. Tanzania on the other hand, has been the most successful in Africa backed by political goodwill, quality consultancy services and the perception of IFMIS as critical to achieving public sector accountability (Chene, 2009).

Various theories have been put forward for the purposes of accounting information systems. This study will use both the Contingency and Meta theories. Contingency theory suggests that no single system is satisfactory in all circumstances. It holds that accounting systems are contingent upon the circumstances that prevail. Meta Theory was devised to analyze theoretical systems. Implementation of IFMIS has enabled the government to address many of the fiduciary issues faced prior to 2003 leading to greater expenditure control and discipline in budget management. This has been as a result of improved oversight and enforcement of internal control. The net effect has been a reduction in time taken to process payment, improvement in accounts reconciliation and more accurate and reliable financial reporting.

# 1.2 Statement of the Problem

The importance of implementing IFMIS in public institutions cannot be underscored due to its role in creating efficiency and ensuring sound PFM. Implementation of IFMIS systems ensures accountability and transparency as well as effective management of resources and corruption eradication and minimization of fraud. IFMIS implementation is influenced by many factors. Among the key factors identified by many scholars are:- lack of management goodwill, poor ICT infrastructure, inadequate resource allocation, hasty implementation and poor monitoring and evaluation mechanisms. IFMIS and effective public financial management have drawn much attention among scholars and researchers. While all the previous studies have focused on the effects of implementation and challenges affecting implementation of IFMIS, few or no studies seem have focused on investigating the extent of implementation and effects of integrated financial management information system modules on effective financial management among the counties in Kenya. This study therefore sought to fill the existing gap by assessing how implementation of an integrated financial management information system contributes towards financial management practices at county treasuries. The purpose of this study was to examine the implementation and effect of IFMIS on public finance management in Kisumu County, Kenya. Furthermore, financial experts in all UN member countries have observed that there's a critical need to effect transparency and accountability, consequently the introduction of IFMIS to enhance Public Finance Management. Despite these efforts, Corruption Perception Index 2014 ranked Kenya at position 145out of 175 nations sliding down from position 139 in the previous year 2013, therefore the need to examine the association between IFMIS and PFM and the effect of IFMIS modules on public financial management and therefore the need to examine the effect of IFMIS modules on Public Financial Management at Kisumu county in Kenya.

# 1.3 General objective

The general objective was to examine the implementation and effect of IFMIS on public finance management in Kisumu County, Kenya.

Specific objectives of the study

- i. To identify the modules of IFMIS implemented in Kisumu county national treasury.
- ii. To determine the extent of implementation of IFMIS modules at Kisumu County national treasury.

iii. To examine the effect of the seven IFMIS modules on Public Financial Management at Kisumu County National Treasury.

# 1.4 Research questions

The study sought to answer the following questions

- i. Which IFMIS modules are used at Kisumu County National Treasury?
- ii. What is the extent of implementation of IFMIS modules at Kisumu County national Treasury?
- iii. What is the effect of the seven IFMIS modules on Public Financial Management at Kisumu County National Treasury?

# 1.5 Scope of the study

The study focused on the Kisumu County National Treasury. The target group was the staff at the Kisumu Sub-county Treasury both in the audit and the accounts sections. The study was conducted from April to June 2016 using a correlation research design and a saturated sample of 24 civil servants. Primary data was collected using questioners while secondary data was collected from reports.

# 1.6 Significance of the study

The National Treasury can use the study to address its challenges and ways of improving them. The study can also be used by finance students to establish the importance and uses of ICT in finance and learn of changes brought about by IFMIS. The study can also be of used by devolved county governments in the implementation IFMIS to curb cases of rising mismanagement of public funds. Academic scholars too can use the study as a basis for further research since IFMIS is a relevantly new concept.

Multilateral and Bilateral development partners like the World Bank may use the study to check on the proper use of funds, hence determine the amount of funding needed. The general public, through this study, can gain access to information on how and what the government is doing to improve and ensure the efficient and effective use of public funds.

The government policy makers can now address the identified shortcomings of the system they are currently using to make it more effective. There is need for formulation and enforcement of legislation that would facilitate accountability and transparency through effective regulations and procedures and a reliable financial and accounting system. The

general public and stakeholders can now have confidence in the financial information being generated from GOK departments and line Ministries. This is because the study found the IFMIS reporting very secure.

The policy makers would benefit from the study findings for the purpose of re-engineering the system. The results of study shows that IFMIS is still not being fully implemented to provide the management and other users timely and accurate information for decision making. Finally, academic researchers can now carry out further research in this area of an integrated financial system in government as suggested in the concluding statements of the study.

# 1.7 Conceptual Framework

IFMIS modules ensure all the financial information is captured. Staff training ensures that the users are able to use the various IFMIS modules and the machines effectively. The policies and procedures will give a clear direction on the rules and regulations to follow while using IFMIS and auditing.

# **Independent Variable**

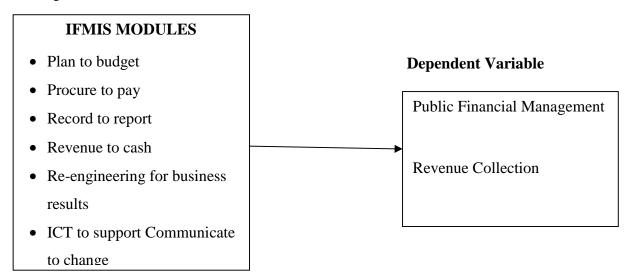


Figure 1.1: Conceptual Framework Showing the Relationship between IFMIS Modules and PFM

(Source: Adopted from Meta Theory, 2015)

# **CHAPTER TWO**

# **LITERATUREREVIEW**

This chapter presents the literature review on the effectiveness of IFMIS on Public Finance Management in Kenya. It contains both the theoretical and empirical reviews.

# 2.1 Theoretical review

# 2.1.1 Contingency Theory

Several theories have been advanced for Accounting Information systems. Macintosh (1981) describes a new theory of information systems which embraces both a macro organizational concept, technical and human information processing system .Since inception, contingency theory has proposed organizational effectiveness which results from the association between the organizational characteristics and contingent factors. Chaplleer (1994) Lavige (2002) and Stepnieski etal (2008) identified significant relationship among contingency factors the complexity of the information systems and business performance.

According to Daud and Triki (2013) studies done have established that there's a relationship between business performance, accounting information and contingency theory. Caplan (1966) defined the management accounting process as an information system whose major purposes is as a communication medium with the organization while providing management at all levels with information that helps in decision making, planning and control functions. Alrawi and Thomas (2007) stated that Accounting Information system is supposed to have all information of the organization that can support decision making. Contingency theory has been used to evaluate factors affecting design of both Financial Information systems and Accounting Information Systems. Contingency theory of accounting information theory ignores the ever-changing information technology where the technologies don't remain the same for a long time; however this is remedied by Meta theory that evolves with technology.

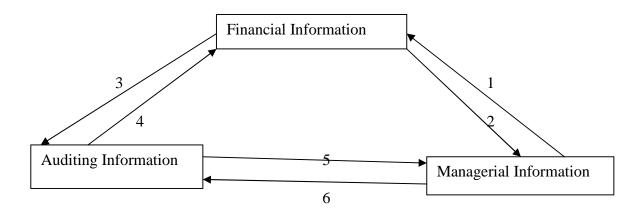


Fig 2.1: Conceptual model by Alrawi and Thomas (2007)

Arrow1 shows the financial information reporting systems requirement from the perspective of management accounting. Arrow 2 show financial management accounting encounters the function of management accounting. Arrow 3 shows the requirements of financial accounting by Auditing function. Arrow 4 reflects financial information reporting in view of auditing department. Arrow 5 is management accounting information from the department to auditing. Lastly, arrow 6 is the encounter of audit systems of information from the management accounting department.

# 2.1.2 Meta Theory

According to Ruchalla and Mauldin (1999), Accounting Information Systems' was sourced from various disciplines mainly cognitive psychology, computer science and organization theory. Previous accounting systems did not include Managerial, Financial Auditing and Tax sub disciplines. The advancements in Information Technology have led to the need for information to make and support complex decisions and the integration of other sub disciplines. Information Technology's changing nature has brought about the need for an organized way of doing things. Meta theory is described as the integration and synthesis of the technology and the cognitive orientations into an overreaching research model of Accounting Information systems.

According to Gorry and Scott (1971), I.T limitations imminent in previous research like failure to recognize the task that I.T is being applied; failure to recognize the adaptive nature of the artificial phenomena; failure to account for the design science in actual field research and, the failure to direct the act of making the necessary decisions and treating all transactions in an equal manner are addressed by the Meta theory. According to Reneau and Grabski (1987), information systems in accounting are used by accountants and other key

decision makers that employ the accounting information or make use of the accounting data. The Meta theory model is built on past frameworks on the management information systems. Technology is very pervasive and an essential component in accounting tasks and changes work processes very efficiently. This is well recognized in the accounting theory. There are many research methods that are being employed to look into the problems inherent to accounting information systems and accounting problems. This is evident in managerial accounting where field work, experimental work and analytical works address the relationships that exist between management information systems and accounting.

The Meta theory model starts with a task focus and suggests a process that matches between task and the alternatives for system design and various levels of analysis. It also suggests contingency factors, organizational factors and technological factors that have an influence on the aspect of task performance.

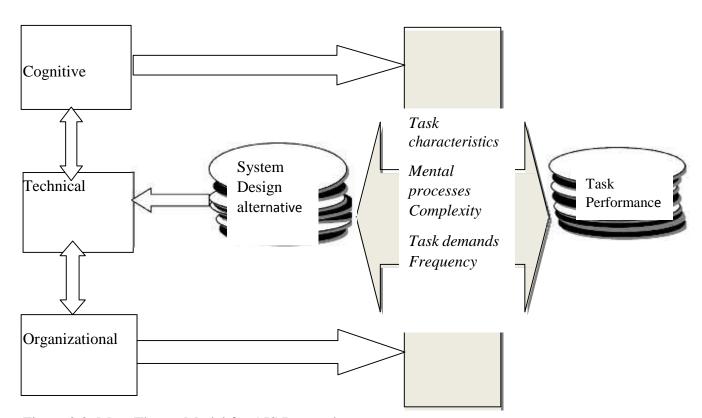


Figure 2.2: Meta Theory Model for AIS Research

Meta theory is more relevant to this study because the theory adapts to changes in both information technology and the ever-changing needs of the financial environment. The

theory applies here where cognitive psychology is the staffs who work for the National Treasury. Computer science and system design are emanated from the various IFMIS modules; organization theory is the financial procedures. All these combined lead to a better Public Finance Management where trained staff working with a well-designed system who follow the financial procedures lead to a better public financial management.

# 2.2 The Components of IFMIS

According to Rodin-Brown (2008), IFMIS has many components or modules, both core and non-core, that perform different functions using information. The components can either be connected to the system via interface or be integrated into the system. The general ledger is the core of the system. Every transaction entered into the system is posted into the general ledger beginning with the budget allocation, commitment, payment, and finally to the appropriate subsystem in the chart of accounts.

Cash management is another core component that monitors financial requirements while reconciling IFMIS records to bank accounts. Commitment control as a core component ensures that the allocation matches the budget and that sufficient funds are allocated before expenditure or commitment to purchase. Accounts payable module processes and generates payments within built checks that ensure the invoices match the approved commitments.

Accounts receivable is a core component that produces bills, processes and receipts by the government units that is revenue and receipts (Rodin-Brown, 2008). The non-core components consist of debt and asset management, budget planning, payroll and human resource management, procurement and contract management. Figure 2.4 presents the components of IFMIS.

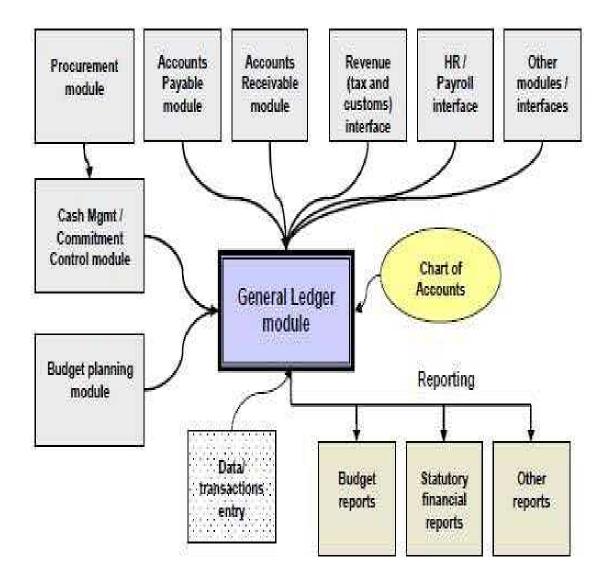


Fig 2.3: Components of a Typical IFMIS

(Source: USAID IFMIS Practical Guide, 2008))

According to Mwaniki (2012), the Kenyan government commenced a reform initiative to reengineer and fully automate the IFMIS. This IFMIS re-engineering strategic plan seeks to enhance that process by identifying requirements, priorities and activities for IFMIS.

Muigai (2012) in his study effect of IFMIS on Financial Management in the public sector in the ministries stated that 95% of ministries in Kenya used IFMIS, he recommended that core modules be acquired first then the non-core modules would be acquired later. He however did not establish the specific modules that had been implemented and the extent

to which they have been implemented. There was, therefore a need to establish the modules of IFMIS implemented at Kisumu County national treasury and the extent to which each module has been implemented at Kisumu County national treasury. This study therefore seeks to establish the IFMIS modules implemented and the extent of IFMIS modules implementation

# 2.3 Finance Management

According to Pandey (2005), financial management is the managerial activity that deals with the planning and controlling financial resources of an entity. An efficient PFM system is a key factor to the efficient use of a nation's scarce public resources and the realization of public sector objectives such as poverty reduction and support towards national growth and prosperity. A trustworthy and efficient national PFM system is also one important prerequisite for donors to provide general budget support and to use national PFM systems (PEFA, 2012). An effective public expenditure management system requires that all its parts function properly and with effective and politically anchored mechanism to decide on priorities, allocate resources and supervise implementation. Figure 2.5 presents the public Finance Cycle.

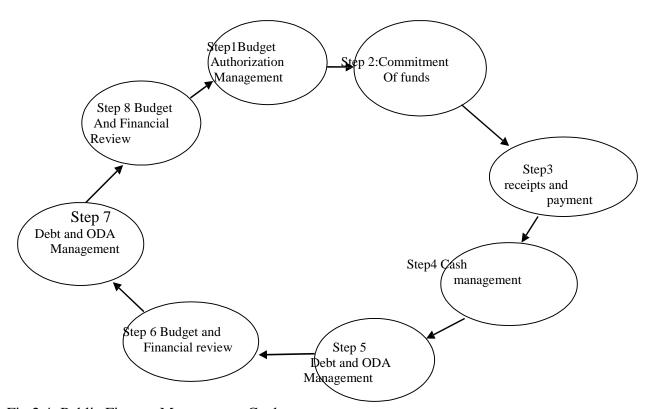


Fig 2.4: Public Finance Management Cycle

(Source: USAID IFMIS Practical Guide (2008)

The IFMIS Strategic Plan 2011-2013 describes budget planning as the process through which the government, according to a pre-defined process (the medium term expenditure framework (MTEF)), formulates budgets for the coming fiscal year. The functional processes of budgeting can be classified as those carried out by spending agencies like the ministries and those carried out at the central agencies. According to the *Business Daily* newspaper (2012), budget governance involves translating stated policies into annual budgets and medium term fiscal frameworks, and the quality of budget execution and reporting. The functional processes cover the interrelated areas: Macro fiscal forecasting, budget preparation, approval and execution, cash management and management accounting (Njonde, 2014).

Ministries are provided with detailed guidelines on how to define their funding necessities according to various sectors such as agriculture & rural development. As priorities are identified, budgets are assigned to various line-items such as fuel, office supplies, amongst others. (IFMIS Strategic Plan 2011-2013). According to the report on Public Finance Management in Kenya in (2009) done by the European Union, the weaknesses observed for programmatic MTEF implementation and budgeting, comprehensiveness, consolidated budgeting and reporting, the poor status of annual financial statements reflected mismanagement and poor control.

According to the Institute of Internal Auditors (2012), audit is the cornerstone of good public sector governance. It provides an unbiased objective assessment on the use of public resources effectively and responsibly. Manaseh (2004) defines auditing as an independent examination of the books of accounts and vouchers of an enterprise by a qualified auditor so as to ascertain whether the enterprise has kept proper books of accounts as per requirements of the Companies Act cap. 486 of the laws of Kenya; whether the financial statements agree with the contents of the books of accounts and; whether such statements portray a true and fair view of the companies state of affairs as at a given date.

Audit is the examination of quality state and efficiency. It can further be defined as an official examination of accounts, It can be done internally (by employees of the organization) or externally (by an outside firm). The government does internal auditing mainly through the Auditor-General and external auditing through KENAO. Van Gansberghe (2005) defined internal auditing provided by the Institute of Internal Auditors

(IIA) to include references both to assurance and consulting activities directed at the governance, risk management and internal control processes. The primary functions of internal auditing are identified as: to ensure compliance and; to check the accuracy of the transactions.

According to the Auditor-General's report for the year 2009/2010, there are detailed cases where accounts of revenues banked at the Central Bank did not tally with KRA records. This makes it necessary to have a system that can provide documentation for audit trail. According to the Government Financial Management Act 2012, section 30 on bank accounts stipulates that no bank account for government purposes may be opened without the written authority of the Treasury. A bank at which the exchequer account is kept shall not allow the exchequer account to be overdrawn (section 11 Exchequer account not to be overdrawn). Government officer who receives revenue but who is not a person authorized to collect it within the meaning of subsection (2) shall give the revenue to such an authorized person within seven days after receiving the revenue.

Section 21 of the Government Financial Management Act 2004 and appointment on receivers of revenue, an approval by the controller and Auditor-General of a withdrawal from the Consolidated Fund described in section 15 or16; together with a direction from the Treasury to issue the approved withdrawal is sufficient authority for the bank at which the Exchequer account is held to issue amount from the exchequer account in accordance with the approval and direction. The direction from the Treasury referred to in above shall specify the bank account or accounts of the issued amounts in accordance.

Muigai (2012) in his study of the effect if IFMIS on financial management of public sector in Kenya concluded that95% of the Ministry Headquarters had implemented IFMIS. Muigai further recommended that the same study should be carried out in the other regions of Kenya outside Nairobi. This raises the question of the effect of IFMIS on public finance management at the rural counties, this study therefore sought to establish the effect of IFMIS on public financial management at the rural counties, in this case the National Treasury in Kisumu County, Kenya.

# 2.4 Empirical Review

# 2.4.1 Modules of IFMIS

IFMIS is an automated public financial management system that interlinks planning, budgeting, expenditure management and control, accounting, auditing and reporting (Daily Nation Newspaper, 2014). The National Treasury in 2003 introduced IFMIS as a Public Finance Management (PFM) reform initiative to automate and streamline government's Financial Management processes and procedures. According to the GoK, IFMIS aims to integrate all departments in the government. IFMIS is a fully fledged department in the Ministry of National Treasury. Some of the modules of IFMIS include plan to budget, revenue to cash and record to report.

The new re-engineering components are: Re-engineering for Business Results (RBR) which has improved financial management, Plan to Budget (P2B) which is a fully integrated process and system that links planning, policy objectives and budget allocation. Procure to Pay (P2P) which is an automated procurement process, from requisition, tendering, contract award to payment. Revenue to Cash (R2C): This is an auto reconciliation of revenue and payments, and also supports automatic file generation.

Record to Report (R2R): This is a secure two way interface with CBK for accurate and up to date production of real time statutory reports. ICT to Support (I2S): Dedicated IFMIS support functions for software, hardware and infrastructure. Communicate to Change (C2C): IFMIS Academy for capacity building and continuous learning. In accordance with the Constitution and Public Financial Management Act (2012), the National Treasury has connected other ministries and all department and the 47 counties in Kenya to IFMIS (IPSOS, 2013).

The government has however not established which of the IFMIS modules have been implemented in the ministries, neither have they established the level of implementation of each module this has necessitated the need to establish which modules have been implemented. This study therefore seeks to establish the IFMIS modules implemented and their level of implementation of each Module at Kisumu county National Treasury.

The IFMIS Plan to Budget (P2B) system is a fully integrated system that links planning, policy objectives and budget allocations. It provides a platform for program based budgeting, an automated system for commitment ceilings and a single common chart of accounts. It facilitates integration and implementation of data which enables government to better exercise control over the budget and enhances the credibility of the budget while encouraging policy-based budgeting. The system enhances reporting capabilities to support budget planning and gives users timely and accurate financial data for efficient management and budget decision making. Through the system, the government can now make effective decisions on budgeting that enhances transparency and accountability.

Revenue to cash includes all the activities related to revenue and cash management from generation, collection and recording of revenue; to distribution of funds to the ministries. It also involves management and control of the actual and the forecasted cash inflows and outflows. Reviewing and implementation of the revenue and cash management business process is important because it will, among other things, ensure that the auto reconciliation functionality is implemented. This ensures that payments, revenues and reconciliations are done on the same integrated system. Auto reconciliation saves a lot of staff time and minimizes errors typical in manual reconciliations. Review of IFMIS-GPAY link will ensure security. In addition the seamless integration of the two systems: implemented interface with CBK for obtaining electronic bank statements enables auto reconciliation and cash forecasting. This implementation is based on 'Straight Through Processing' (STP) approach. This component also facilitates the provision of an interface to KRA and CBK to input revenue data directly into IFMIS and provide accurate and update information on the government's financial position.

Record to report provides a structure for effectively recording transactional data from all processes. It processes that data right through to the production of regulatory, financial and management reports. It begins with the collection of source transactions and other accounting data and ends with the creation of reports. It encompasses the majority of activities typically referred to as "general accounting" leading electronic transmission of bank statements from CBK which is a secure two way interface between IFMIS and CBK for EFT instructions and statements, online maintenance of bank account details and accurate up to date information on the GoK financial position.

Contingency theory in this case is applicable where financial information can be used to establish whether the funds are properly managed. Financial information can be converted into management information that is used to make management decisions. Audit information is also used by managers to establish proper Financial Management and make policies.

Adero & Chumba (2014) studied IFMIS and its effect on cash management in Eldoret West District Treasury, Kenya. The study stated that a reliable system support government wide and policy wide decisions by providing adequate management reports. However the study did not established the effect of IFMIS on public financial management .this led to the need to study the effect IFMIS on public financial management in Kenya National Treasury. The study therefore seeks to establish the effect of IFMIS on public finance management in Kenya, Kisumu county national treasury.

# 2.4.2 Extent of Implementation of IFMIS Modules

Political goodwill together with clearly defined strategy and timeframe led to the success of IFMIS in the Slovak Republic (Chene, 2009). The system is considered one of the most effective and efficient IFMIS systems in the European Union rivaled only by those in Estonia, Slovenia and Lithuania and the closest to the commercial model. IFMIS in Slovak Republic was financed by the national own budget. The implementation of IFMIS in the Slovak republic was forced by the hand of bureaucracy and the country's desire to join the E.U hence the need to comply with the derivatives.

The system was defined, acquired, tested, configured and switched on at the beginning of the financial year. The system went live on January 2004 and by the 9<sup>th</sup> month of operation due to the systems efficiency it was able to pay for itself. The IFMIS system gave the government extremely powerful control and a sophisticated treasury. Chene (2009) established the system was efficient and effective. The modules of IFMIS implemented in Slovak republic consisted of general ledger, client banking and treasury and trading, these modules link all information needed into one structure making it an extremely powerful management and control tool for a sophisticated treasury.

According to Rhodin-Brown (2008) Post conflict Kosovo had neither a budget process nor a treasury system. They however had foreign aid flowing in that was to be used for reconstruction. A transitional government set up a central fiscal authority renamed the

Ministry of Finance and Economy Microsoft excel to handle donor findings. The need for IFMIS became apparent when the need to integrate the municipalities, future line ministries and spending agencies into one central system. The Kosovo IFMIS was funded by the CIDA, SIDA and USAID. Despite political challenges in some Sub municipalities, the system was adopted at a gradual pace and in three languages. The implemented system included full accounting, treasury and revenues.

Tanzania is said to have the most successful IFMIS in Africa. IFMIS was introduced in 1998 and placed in the Accountant-General's office (Diamond, 2005). IFMIS was first introduced to 10 pilot ministries and departments then later expanded to the remaining 33 ministries in the capital (Chene, 2009). IFMIS has also been rolled out in the local authorities. According to Diamind and Kimani (2005), in Tanzania, the authorities and donors agreed that IFMIS is a critical tool for the achievement of accountability in the public sector. This is because the use of IFMIS has led to the restoration of public expenditure control while improving the levels of accountability and transparency.

According to Muigai (2012) 95% of the ministries in Nairobi, Kenya had implemented IFMIS .the study however did not establish the level of implementation of IFMIS at the rural counties .this study therefore seeks to determine the effect of IFMIS on public financial Management in Kisumu county National Treasury.

According to Semakula (2012) Uganda's IFMIS was motivated by the Ugandan Government's desire to improve efficiency in budget preparation, execution and financial reporting. Uganda's IFMIS project has been a critical part of its Public Finance Management reforms. Over the last 10 years since 2003, the depth of functionality and coverage of government units under the IFMIS has gradually expanded to 22 ministries and 25 central governments agencies. IFMIS has also been implemented in 8 local governments and there are plans to extend it to 6 more districts. The main modules in Uganda are: Public Sector Budgeting, which enables vote holders prepare and submit budgets electronically and consolidation of the system.

Another is General Ledger where transactions are electronically posted into the system. Payable is the next, where supplier invoices are received and processed electronically and validated real time. Purchasing is another module where purchase orders and cash limits are linked online therefore enhancing commitment control. Cash management where cash forecasting and bank reconciliation are done online real time. Revenue links URA Treasury

in respect of tax returns. Implementation of IFMIS has enabled the government address many of the fiduciary issues faced prior to 2003 leading to greater expenditure control and discipline in budget management as a result of improved oversight and enforcement of internal control, A reduction in the time taken to process payment, improvement in accounts reconciliation and; more accurate and reliable financial reporting.

In Kenya's National Treasury Headquarters according to the strategic plan 2010-2013 the modules implemented consisted of plan to budget, procure to pay, record to report, revenue to cash, reengineering for business results, ICT to support and communicate to change. However the modules implemented at the rural counties is yet to be established. This study seeks to examine the modules of IFMIS implemented in Kenyan rural counties.

The National Treasury in Kenya created IFMIS department to support the automation of budgeting and financial management. IFMIS was developed in 1998 and deployed in line ministries in 2003(Strategic Plan 2011/2013)The original system covered public sector budgeting, purchase ordering, accounts payables, accounts receivables, general ledger and cash management. The implementation requirement in Kenya originated from Ministry of Finance and Economic Planning ICT masterplan2001/2005 which highlighted gaps within the SIBET system that were being used at the time.

According to the IFMIS Strategic plan, some of the modules at the Kenya National treasury headquarters are Plan to budget, procure to pay, record to report, revenue to cash and communicate to change. The modules that have been implemented in Kenya's rural counties have yet to be established therefore the need to examine the extent to which the modules have been implemented. This study seeks to establish the level of modules implementation at Kisumu County.

Muigai (2012) in his study the effect of IFMIS on financial management of public sector in Kenya found IFMIS to be effective in enhancing financial reporting at Nairobi County. This did not represent the true picture at the rural counties such as Kisumu County. This study therefore seeks to establish the effect of IFMIS modules at Kisumu County in Kenya.

# 2.3 Summary of Literature Review

Meta theory integrates and synthesizes technology and cognitive operations to obtain a better model of accounting information systems. These systems have led to better decision making when used by accountants and managers. Contingency theory views the accounting information system communicates to managers thus facilitating planning, controlling and decision-making functions.

Integrated Financial Management Information System is a major part of Public Finance Management. IFMIS was adapted as part of the PFM reforms. The major benefits of the IFMIS revolve around increased effectiveness and efficiency of the government's financial management. IFMIS is leading the government of Kenya in adopting the modern public expenditure management practices which will improve the financial management of public resources. Budgeting has been integrated in IFMIS to become a plan to budget.

A component of IFMIS and its products are enhanced provision of timely and accurate data for financial management leading to harmonization of budget preparation and accommodating last minute changes in budgets more easily. IFMIS records financial transaction in realtime thus enhancing close monitoring of budgets, commitments and cash balances. This leads to improved cash planning and departments cannot overspend their budgets since the system cannot process transactions with no funds for spending.

When IFMIS is combined with other systems such as CBK's G-PAY', it reduces duplication in process transactions. It also improves revenue collection since IFMIS makes it easier to detect where losses arise from and maintains a list of suppliers who have done business with the Government. Therefore, it is easy to know the ones who have not remitted their tax returns to the collecting authority since only suppliers with KRA PIN's can do business with Government. Record to report ensures all records of transaction are maintained and are available on demand. Together with audited reports, IFMIS should effectively reduce misappropriation of public finances. The Government of Kenya is adopting modern public expenditure management practices like IFMIS,

# **CHAPTER THREE**

#### RESEARCHMETHODOLOGY

This chapter contains the research design, the target population, the sampling frame, sample size, the sampling procedure, data collection instrumentation and data analysis techniques.

# 3.1 Research Design

Research design has been defined as a plan and structure of investigations that's conceived and applied to help a researcher answer research questions (Schindler, 2007; Kerlinger, 1986). Or in other considerations, it's an arrangement of how one collect and analyze data with the aim to actualizing research purpose (Kothari, 2004). The study aimed at determining the effect of IFMIS modules on Public Finance Management in Kisumu County National Treasury. Correlation research design was deemed appropriate to determine nature of effect and magnitude of the effect of the IFMIS modules on public finance management in Kisumu county national treasury. This design has been employed in previous studies and shown to be effective in exploring and explaining relationships between various variables (Asaolu & Ogunmuyiwa, 2010).

# 3.2 Target Population and Sample Frame

This study was conducted at the Kisumu County National Treasury with a target population of 24 civil servants. Saturated sampling was used in this study since it allowed the researcher to get the required information in respect to the objective of the research (Pannneerselvam,2007). The study focused on twenty-four(24) staff members who handle IFMIS directly on a day-to-day basis while carrying out financial operations involving government activities. The target population comprised of the senior and middle management staff from counties serving in human resource, front office, finance as well as procurement departments.

# 3.3 Data Collection

# 3.3.1Data Collection procedure

Both primary and secondary data were used in the study. The researcher collected primary data using self-administered questionnaires which according to Pannneerselvam (2007), removes interviewer bias. The questionnaire had closed ended questioners which shortened the response time. Secondary data was collected from published reports from the Ministry of

Finance website and other government documents. The secondary data was used as a measurement for PFM.

# 3.3.2 Data collection Instruments

Structured closed ended questionnaires were used as a primary data collection instrument. To ensure that the data collection instruments were relevant to the study and interests the respondents the questionnaires were pretested by a pilot survey at the Kisumu county treasury which is not part of Kisumu National treasury. A plot test is important in every study as it tests if the data collection instruments are appropriate to exude the right information and is easily understood by the respondents (Kothari, 2011). It is recommended that any research start with a pilot study for the above reason among others and is appropriate (Panneerselvam, 2007). Secondary data was collected through desktop review of financial report.

# 3.4 Data Analysis Techniques

In order to show the relationship between the independent and dependent variables, the linear regression method was adopted. In linear regression, equation 3.1 model summarizes the relationship between the dependent and independent variables. The following linear regression model was used to establish the relationship between Public Finance Management and IFMIS modules implemented in the county and determine the effect of IFMIS modules implemented on Public Financial Management.

$$Y = {}_{0} + {}_{1}X_{1} + {}_{2}X_{2} + {}_{3}X_{3} + {}_{4}X_{4} + {}_{5}X_{5} + {}_{6}X_{6} + {}_{7}X_{7}$$
3.1

Where:

 $Y_i$  = the value of the dependent variable of effective financial management in County treasury

 $\{i; i=1,2,3,4,5,6 \text{ and } 7\} = \text{The coefficients for the various independent variables}$ 

Xi = Various independent variables

 $X_1$ =Plan to Budget (P2B)

 $X_2$ = Procure to Pay (P2P),

 $X_3$ =Record to Report (R2R),

 $X_4$ =Revenue to cash (R2C),

X<sub>5</sub>=Reengineering for business results (RBR),

 $X_6$ =ICT to support (ICT2S) and

 $X_7$ =Communicate to change(C2C).

-Error term

The error term is assumed to have a normally distributed mean and a constant variance.

The model to be estimated therefore;

To test the significance of the model, t-test and F-test were used at 95% confidence interval. The p-values for the F-statistic was were calculated and used to test the level of significance. Where the p-value of less that 0.05 was obtained, we concluded that the model was significant and has good predictors of the dependent variable and that the results are not spurious (based on chance) and where p-value was greater we failed to reject the null hypothesis and concluded that we did not have enough information to explain the variations in the dependent variables using the model. After analysis data was presented using tables and charts.

#### **CHAPTER FOUR**

#### **RESULTS AND DISCUSSIONS**

This chapter presents the results of the study. The research sought to examine Implementation and effect of IFMIS modules on Public financial management at Kisumu county National treasury. The findings herein are presented in graphs and tables alongside their respective discussions. The findings form the basis of conclusions derived and presented well in the next chapter

#### **4.1 Response Rate**

Questionnaires were administered, and the response rate was 67% (16/24), this was commendable since according to Mugenda (1999) response rate of 50 % is perceived as adequate for analysis and reporting, 60% is deemed as a good outcome. Thus 67% response rate is satisfactory to make conclusions for the study. This response rate can be attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for the respondents to fill, and picked the filled questionnaires.

## 4.2General characteristics of the respondents

General characteristics of the respondents such as demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population and testing appropriateness of the respondent in answering the questions for generalization purposes. The information comprised of the gender, age, work experience and training.

The findings (Table 4.1) shows that 43.75% of the respondents were aged between 21-40 and 56.25% were in the bracket of 41-60 years.

Table 4.1: Characteristics of the respondents

	Age brackets		Gender		Job Involves IFMIS		If tra	ined on
							IFMIS	
	Lower	Upper	Male	Female	Yes	No	Yes	No
Frequency	21-40	41-60	8	8	16	0	15	1
Percentage	43.75	56.25	50	50	100	0	93.75	6.25
%								

The majority of the respondents were in their maturity age of 41-60 years and therefore on one hand, are able to handle their roles responsibly. But on the other hand, majority of the staff engaged in IFMIS are in the upper bracket towards retirement and are therefore not very likely to be responsive to technological changes and innovations.

The distribution according to the gender in the table 4.1 shows that 50% were male and 50% were female. Both the genders were equally represented. This is an indication that both genders were well represented in this study and thus the finding of the study did not suffer from gender bias all through the study. Carter and Shaw (2007) found that organizations with gender balance were motivated to perform better towards organization goal as women and men compete favorably to deliver on their assignments.

Further, the study sought to establish whether or not the respondents work involved the use of IFMIS. All the respondents were engaged in IFMIS related undertakings and 93.75% of the respondents had been trained on the use of IFMIS. This increased the credibility of the information gathered from the respondents. Hazernberg (2012) associated the experience and training of staff with findings that, those with more experience and training are more successful because higher training provides them with knowledge and modern skills, making them more conscious of the reality of the organization management world and thus in a position to use their learning capabilities to enhance project implementation and delivery. The findings therefore indicate that the respondents have the capacity and skills to facilitate performance of IFMIS in the organization. These skills may help them handle and interpret their respective services and the emerging issues on implementation and performance of the IFMIS to the best level possible.

#### 4.3 Modules of IFMIS implemented at Kisumu County National Treasury.

The first objective of the study was to establish the modules of IFMIS implemented at Kisumu County National Treasury. IFMIS as a system consist of the following seven modules; Plan to budget (P2B), procure to pay(P2P), Record to report(R2R), Revenue to cash (R2C), Reengineering for business results(RBR), ICT to support (ICT2S) and Communicate to change(C2C). Although IFMIS is expected to be a fully integrated system, its level of implementation may vary from one organization to another which equally influences its effectiveness and therefore its success rate. In Kisumu county National Treasury, all the respondents acknowledge existence of all the seven modules of the IFMIS but at different levels of implementation at sub county treasuries.

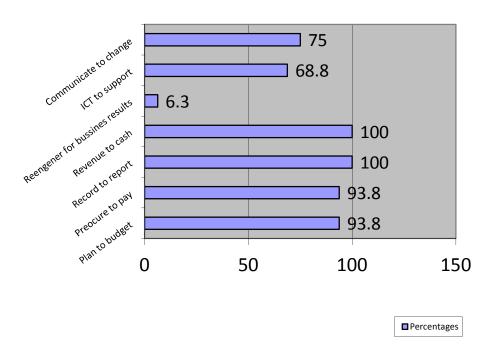


Figure 4.1: Extent of use of different modules in Kisumu County Treasury

Source: Research Findings (Author 2017)

As indicated in Fig.4.1, all respondents (100%) from the sub-counties agree to the use of R2R and R2C while 93.8% acknowledge existence of P2B and P2P. communicate to change (C2C) module was third in rank with 75% followed by ICT2S at 68.8%. However, only 6.3% of the respondents indicated awareness or use of re-engineering for business results module. From the varied results, it is confirmed that not all stations have all the modules in the county. This necessitates the need to investigate the extent of implementation of the modules in the county.

# 4.4 Extent of implementation of the IFMIS modules at Kisumu County National Treasury.

In the second objective, the study sought to determine the extent of implementation of IFMIS modules at Kisumu County National Treasury. The Kenya Government has implemented the Integrated Financial Management Information System (IFMIS) since the year 2005 as its sole accounting system. It was prompted by the fact that despite the government's commitment to implementing IFMIS as one of the key financial reforms, the implementation seemed to be too slow hence delaying the realization of its benefits.

The study sought to establish from the respondents the extent of implementation of the various modules of IFMIS by responding to whether the module was: fully implemented,

partially implemented or not implemented. Fig. 4.2 shows the various levels of implementation of the IFMIS modules.

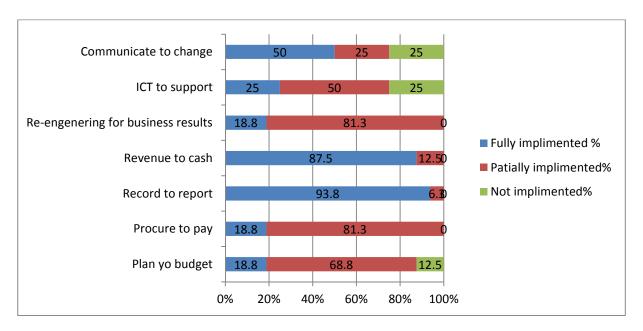


Figure 4.2: Extent of implementation of IFMIS modules in Kisumu County treasury

Source: Research Findings (Author 2017)

Plan to Budget (P2B), one of the core modules of IFMIS is aimed at providing a structured framework for development and deployment of a fully functional, automated planning and budgeting system, as well as improving the accuracy and efficiency in the Government's planning and budgeting process. The study established that 18.8% of the respondents acknowledged that plan to budget (P2B) had fully been implemented; 68.8% indicated that plan to budget module had been partially implemented, while 12.5% show that the module had not been implemented in various sub-county treasuries. Incomplete implementation according to a number of studies (Chene 2009, Diamond & Kimani 2005)is likely to compromise links between planning, policy objectives and budget allocation.

For Procure to Pay (P2P), the module intended to develop a fully integrated and automated supply chain management system, the study established that 18.8% of the of the module had been fully implemented in the county treasuries while in some sub county treasuries 81.3% of the module is partially implemented. In some sub counties 93.8% of the respondents indicated that record to report module had been fully implemented while 6.3% of the respondents indicated that record to report module had been partially implemented. Record to Report

(R2R) is a module designed to secure two-way interface with CBK for accurate, up to date information on the GOK financial position and the production of statutory reports real time.

In the case of revenue to cash (R2C), an auto-reconciliation of revenue and payments with automatic file generation, the study indicated that 87.5% of the treasuries had revenue to cash (R2C) module had fully been implemented, in some treasuries 12.5% of the respondents indicated that revenue to cash module had been partially implemented. This component encompasses all activities that include the updating and maintenance of the general ledger, the reconciliation of sub ledgers to the general ledger and closing of books. It also includes recording, control and reporting on fixed assets at both National and County level. For the case of re-engineer for business results, the study established that 18.8% been fully implemented while 81.3% of the respondents indicated that the module was partially implemented.

The study also established that 25% of county treasury respondents had ICT to support module fully implemented, 50% of the county treasury had the module partially implemented. ICT to Support module like its name, is a support module dedicated to support functions for software, hardware and infrastructure. The main objective of this component is to provide the technical support underpinning effective and efficient automation of all the IFMIS processes. ICT to Support aims to provide the infrastructure and support required for a fully functional financial management system.

Last but critical module to the integrated IFMIS is the communicate to change (C2C) module which is for capacity building and continuous learning of the staff, only 25% of the respondents stated that the module had fully been implemented, 50% partially implemented while 25% had not been implemented. This component focuses on change management, capacity enhancement, information generation and dispersion, education and effective communication among IFMIS stakeholders.

The extent of implementation of the modules is widely varied across the Kisumu treasuries. This Implies that not all modules were fully functional in all the treasuries which is attributed to the varying functionalities in the county treasures. The findings concur with Muigai (2012) who recommended that core modules be acquired first then non-core modules would be acquired later. In Tanzania Chene (2009) established that IFMIS had gradually expanded from 10 pilot ministries to the remaining 33 ministries in the capital. Kenya on the other hand is

implemented module by module according to the scope of work in the treasury as the scope of work increases so does the number of modules in the sub county.

# 4.5 Effect of IFMIS modules on Public Financial Management

The third objective of the study was to determine the effect of various IFMIS modules on public financial management in Kisumu county treasury. This section analyses the effect of IFMIS modules on Public finance Management using the revenues collected as a measure performance .With the help of SPSS version 20 packages the above data was analyzed to establish the effect of IFMIS modules (Independent variables) on Public Financial performance (dependent variable). A multiple regression model was used in this analysis. The resulting regression coefficients have been used to interpret the direction and magnitude of the relationship. The eta coefficients show the responsiveness of the dependent variable as a result of unit change in each of the independent variables (IFMIS modules). The error term captures the variations that cannot be explained by the model.

# **4.5.1 Regression Model Coefficients**

The results in Table 4.2 below indicate IFMIS modules have an effect on public financial management.

Table 4.2: Effect of IFMIS Modules on PFM

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t-Stat	Sig.
		В	Std. Error	Beta		
	1 (Constant)	3.985	1.205		3.307	0.011
	Plan to budget Level of implimentation	-0.512	0.23	-0.479	-2.227	0.057
	Procure to pay Level of implimentation	0.667	0.402	0.439	1.66	0.135
	Record to report Level of implimentation	0.728	0.775	0.297	0.939	0.375
	Revenue to cash Level of implimentation	-1.455	0.58	-0.812	-2.508	0.036
	Reengenering for Business results Level of implimentation	-0.419	0.369	-0.276	-1.133	0.29
	ICT to support Level of implimentation	1.111	0.443	1.325	2.508	0.036
	Communicate to change Level of implimentation	-0.789	0.349	-1.104	-2.264	0.053

Source: Author (2017)

PFM = 3.985 -0.521P2B +0.667P2P +0.728R2R - 1.445R2C - 0.419R2B+ 1.111ICT2S-0.789C2C +

According to the regression equation established, taking all other independent variables at zero, the public financial management will be 3.985. The data findings analyzed also shows that plan to budget module has a negative effect on public financial management and a unit

change of lead to a 0.521 decrease in the performance of public finance management and the module is significant (t = -2.227, sig 0.057)

Procure to pay module has a positive effect (0.667) on public financial management and is not significant with value of t-statistic (t=1.666, sig 0.135). Record to report module positively affects (.728) public financial management, however it is not significant (t=0.939, sig 0.375). Although Revenue to cash module negatively affects (1.445) public finance management and it is significant (t=2.508, sig 0.036).

Reengineering for business results module is not significant (t=1.133,sig 0.29) and negatively affects (0.419) public financial management. ICT to support module has a positive effect (1.111) on public financial management with a significance (t= 2.508,sig 0.036). While Communicate to change module has a negative effect (0.789) on public financial management, it is significant to (t=2.264,sig0.053.)

The findings of this study concur with the National Treasury (2011) report which established that the major effect of IFMIS modules raises higher levels transparency and accountability thus strengthening government financial controls. The findings also complement the earlier ratings where 87.6% of the respondents rated Success of IFMIS as above good. The study concludes that IFMIS had succeeded at Kisumu County National Treasury this is in line with Mugnai (2012) who established that IFMIS has greatly contributed to improvement of financial management in Kenya.

#### 4.5.2 Model summary

From Table 4.3 below, the Coefficient of Determination (R<sup>2</sup>) is 0.66. This means that the regression equation explains 66% of the variation in Public Financial Management.

**Table 4.3: Coefficients of Determination** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.812 <sup>a</sup>	.660	.653	.4890394

Source: Author (2017)

#### **CHAPTER FIVE**

# SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The study examined the Implementation and effect of IFMIS modules on public finance management at Kisumu county National Treasury. This chapter highlights summary of findings, conclusions made on the findings and recommendations which are meant to enhance effective use of the system.

## 5.2 Summary of Findings and Discussions

In Kisumu county National treasuries, the staffs using IFMIS were evenly distributed and their jobs involved the use of IFMIS and its modules. However, not all of the respondents had been trained on the use of IFMIS and its modules.

In Kisumu county National treasuries IFMIS users acknowledged that plan to budget and procure to pay modules have been implemented all the respondents established that record to report module revenue to cash modules, ICT to support, and, Communicate to change modules are in use, However reengineering for business results module has not been implemented most areas of the county.

In Kisumu county National Treasuries IFMIS users indicated that Plan to budget, Procure to pay, Re-engineering for business results, ICT to support and Communicate to change modules are partially implemented, while only module that is fully implemented is Record to report module.

The outcome of the regression analysis indicates that IFMIS modules have had a significant effect on the Public finance management at Kisumu county National treasury, Kenya. Plan to budget module has a significant effect on PFM. On the other hand Procure to pay module has no effect on public financial management. Communicate to change has significant effect on public financial management; Revenue to cash module has a significant effect on public financial management; ICT to support modules has significant effect on Public financial management. Record to Report has no significant effect on public financial management; Reengineering for Business Results has no significant effect on public financial management. The most influential IFMIS module is the ICT to support module with a regression coefficient of 1.111.

#### **5.3 Conclusion**

The study concludes that all modules with exceptional to report Re-engineering for business results have been implemented and operational at Kisumu County National Treasury. However considering the extent of use of modules, not all modules were in full use within the Kisumu county National treasuries.

Further, a number of modules (Procure to pay and ICT to support) were statistically significant in influencing public finance management. Although a few modules (Plan to budget; Revenue to cash; Communicate to change) had a negative influence on public financial management, most importantly IFMIS modules so far implemented at Kisumu County National Treasuries account for 66% of success of public finance management.

#### **5.4 Recommendation**

In Kisumu county National treasury all modules except for Re-engineering for business results have been implemented, Re-engineering for business results should be implemented. Although most modules are operational, the use to an optimal level will improve the contribution of IFMIS on Public Financial Management.

Plan to budget, Revenue to cash and Communicate to change modules have a negative effect on public financial management there is a need to understand why. Procure to pay, Record to Report, Re-engineering for Business Results and ICT to Support modules have a positive effect on public finance management and should be advanced further.

### **5.5** Suggestions for further research

The study population involved the Government Ministries based at Kisumu county National Treasury. Further study could be undertaken by involving Devolved units that is the county governments in the country. Since the study is IT based, and IT changes regularly, new studies should be done to highlight the new developments in the system.

#### **REFERENCES**

- Adero, P. & Chumba, S. (2014). Integrated Financial Management System audits effect on cash management in Eldoret West district treasury Kenya. *International Journal of Business and Social Science 3* (5) 13 22.
- African Diaspora Programme. (2013). Mobilizing the African Diaspora for Development. *The World Bank*, *34* (14) 25 34.
- Auditor–General. (2011). Report on Appropriation Accounts, Other public accounts and the republic of Kenya for the year 2009/2010. Kenya Gazette Notice No 134. Nairobi, Government Printer.
- Barata, K., & Cain, P. (2001) Information not technology is essential to accountability: Electronic records and Public Sector and Financial management. *The Information Society* 6 (2) 12 19).
- Caplan, S.E. (1966). Behavioral assumptions of Management accounting. *Accounting Review*, *I* (4) 142 156.
- Chene,M. (2009). *Implementation of IFMIS*. Transparency International Audit Report. Nairobi. Kenya Chapter.
- Diamond, J., & Kimani, P. (2005). *Introducing Financial Management Information Systems in Developing Countries*. International Monetary Fund. Washington DC.
- Dorotinsky, W.L. (2011). Financial Management Information Systems Projects. The International Bank for Reconstruction and Development / The World Bank 1818 H Street NW Washington DC 20433.
- Gansbergerge, C.N.(2005) *Internal Auditing in Public Sector*. Institute of Internal Auditing Kenyan Chapter Annual Report, Nairobi, Kenya
- Government of Kenya. (2012). Public Financial Management Act 2012. Constitution of Kenya. Nairobi, Government Press.
- Hendricks, C.J. (2012). Integrated Financial Management Information Systems, Guidelines for effective implementation by the publicsector in South Africa. *South Africa Journal of Information Management*, 5 (1) 234 241.
- IPSOS(2013 September). Your Questions on IFMIS Answered. Nairobi, Daily Nation p. 24.
- Kajwang, P. (2015 October). Cartels are Kenyans next obstacle to anti-corruption efforts. *Daily Nation p 25*.
- Karanja, J.G., &Nganga, E. (2014). Factors Influencing Implementation of Integrated Financial Management Information Systems in Kenya Government Ministries. *Research Journal of Finance and Accounting*.
- Kiarie, L. (2014 September). ShS 500B funds cannot be accounted for says Auditor General. Standard Newspaper p. 21.

- Manasseh, P.N. (2004). *A textbook on Principles of Auditing*. Nairobi. Acts University Press.
- Mauldin, E., & G, Ruchala, L.(1999). Towards a Meta Theory of Accounting Information Systems. *Accounting Organization and Society*.
- McCarthy Phiri., & Chisala. Richard. (2009). *Quick assessment of Integrated Financial Management Information Systems*. Government of the Republic of Malawi. Press.
- Muiga, E. K.(2012). The effect of Integrated Financial Information Management Systems on financial management of Public in Kenyan Ministries. Unpublished project to University of Nairobi.
- Mwenesi,S.(2014). *Kenya National Treasury Launches IFMIS Strategic Plan*. Retrieved on 13<sup>th</sup>March, 2015 from: www.humanimpo.com/news
- National Treasury (2011). The IFMISS strategic Plan 2011-201. Nairobi, Government Printer.
- Njonde, J., & Kimanzi, K. (2014). Effects of Integrated Financial Management Information System on Performance of Public Sector: A case of Nairobi County. *International Journal of Social Science and Entrepreneurship* 5 (12) 1 10.
- Panneerselvam, R (2007). Research methodology. NewDelhi.
- Semakula, L., & Muwanga, R. (2012). Uganda: implementing an Integrated Financial Management System and the automation of the budget process (Country Learning Notes). ODI, *Budget Strengthening Initiative*. http://static1.1.sqspcdn.com/static/f/1349767/19599878/1343318386603/Uganda+i mplementing+a n+Intergrated+Financial+Management+System.pdf?token=bcXJEKmwoEhGuxGD hynLbO9WgEE%3D
- The World Bank Experience ((2012). European Union. *Public Expenditure and Financial Accountability Assessment report*. PEFA Secretariat World Bank Washington DC USA
- The World Bank, Public Expenditure Working Group. (2005). Strengthened approach to Public financial management reform. The World Bank.
- Transparency International.(2014). Corruption Perception Index 2014. Transperency International. www.transparency.org.cpi
- The National Treasury.(2012). *Kenya good governance support Program me 2010-2015 Public Finance Component*. Nairobi. Government Printer.
- Wanyama, I. & Quie, Z. (2011). The fit between Organizational Structure and IS Implementation: The case of IFMIS in Kenya. *International Journal of Trade, Economics and Finance* 7 (3) 120 134.

# **QUESTIONNAIRE**

Dear respondent,

I am a student from the School of Business and Economics at Maseno University pursing a Masters in Business administration(Finance Option). I am carrying out a research on the implementation and effect of integrated financial management information systems on the public financial management in Kisumu county National Treasury. I will be grateful if you answer the questions outlined in this questionnaire. Any information provided will be kept confidential and be used only for this study.

Please tick appropriately.

Part A

What is your age bracket?

21-40	
41-60	

Sex

Part B

Does your job involve the use of IFMIS?

Yes	
No	

Have you been trained on the use of IFMIS?

Yes	
No	

Which modules of IFMIS are in use at your treasury?

Module	Yes	No
Plan to Budget		
Procure to Pay		
Record to report		
Revenue to cash		
Reengineering for Business Results		
ICT to Support		
Communicate to Change		

To what extent are the IFMIS models implemented?

Module	1	2	3
Plan to Budget			
Procure to Pay			
Record to report			
Revenue tocash			
Reengineering for Business Results			
ICT to Support			
Communicate to Change			

# Key

- 1. Fully implemented; 2. Partially implemented; 3. Not implemented
  - 7. On the scale of 1-5 how would you rate the success of IFMIS on PFM?

1	
2	
3	
4	
5	

8. In your own assessment has IFMIS succeeded in Kenya?

Yes	
No	