DETERMINANTS OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IMPLEMENTATION, IN THE NATIONAL GOVERNMENT DEPARTMENTS IN MERU COUNTY.

MAINA PATRICK WAMBUGU

A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION (FINANCE OPTION) OF KENYA METHODIST UNIVERITY

April, 2019

DECLARATION AND RECOMMENDATION

DECLARATION

I declare that this thesis is my original work and has not been presented for any award in any university.

Signature : ……………………………………….. Date : ……………………………………

MAINA PATRICK WAMBUGU

REG.NO: BUS – 3-0317-1/2014

RECOMMENDATION

We confirm our candidate under supervision carried out the work reported in this thesis.

Signature…………………………………………. Date :…………………………………………..

Dr. Ken Mugambi

Kenya Methodist University

Signature…………………………………………..Date :…………………………………….…..

Mr. Abel Moguche

Kenya Methodist University.

DEDICATION

I dedicate this thesis to my dear wife Phyllis, for her continued love, moral and financial support.

To my kids; Shirleen and Maxwell.

ACKNOWLEDGEMENT

ABSTRACT

The government of Kenya has for a long time been very much concerned over the persistent poor performance in financial management due to lack of reliable and timely information for decision making. It took an initiative to address the shortcomings of the financial reporting system and to ensure good governance. The International Monetary Fund (IMF) carried out a survey in government accounting in early 1993 followed by a diagnostic study sponsored by the World Bank; this led to introduction of IFMIS. The main objective of this project was to computerize the whole accounting and auditing system in all the national government departments (Kinyua, 2011).The national government has endeavored to implement a fiscal management system at both to the national and county government to enhance prudent and accountable management of resources, putting in place the Integrated Financial Management Information System (IFMIS) that ensures budgeting and execution of finance commitments of the government bodies. The general objective of this study was to establish the determinants of IFMIS implementation in the national government departments in Meru County. In order to address this aim, the study was guided by the following objectives, namely to: -establish the influence of staff competence on IFMIS implementation in national government departments; assess the influence of government policies on IFMIS implementation in national government departments; determine the influence of top management support on IFMIS implementation in national government departments; and find out the influence of technological infrastructure in IFMIS implementation in national government departments. The study aimed at bridging the gap in knowledge on factors impeding the implementation of IFMIS in national government department in Meru County with the aim of suggesting strategies and approaches that can aid in promoting the implementation and use of the system. A target population of 68 employees of the national government departments in Meru County was used and a census was conducted. Descriptive and advanced inferential statistics were used to analyze data specifically by use of multiple logistic regression and p-value was used to test hypothesis. Frequency distribution tables, pie charts and bar graphs were used to represent the data more easily. The study established that government has created adequate policies in regards to IFMIS implementation; however, the presence of policies is not sufficient to enable its implementation. This was confirmed by hypotheses tests which showed that staff competency, technological infrastructure and most importantly, management support is vital for the effective implementation of the IFMIS system in national government departments. The study concluded that policies without appropriate implementation interventions is not effective in promoting IFMIS implementation. The study recommended that government to work on staff competency, right from recruiting the right personnel, and embracing on on-job training.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CMS   :   Change Management System

GoK   :   Government of Kenya

ICT   :   Information Communication Technology

IFMIS   :   Integrated Finance Management Information System

NACOSTI   :   National Commission for Science Technology and Innovation

PFM   :   Public Finance Management

DEFINITION OF OPERATIONAL TERMS

IFMIS :   Is an information system that tracks financial events and

summaries financial information.

Adoption of IFMIS: This is the process of initiation and installation of IFMIS

and supportive infrastructure (Kenya National Treasury, 2017)

National government: These   are   units   of   operation   of   national   government
Departments   (Kenya Law Reports, 2010).

Public finance   :   is that branch of Economics which deals with, the income and

expenditure of a government (Jain et al, 2015).

CHAPTER ONE
INTRODUCTION

1.1   Background of the Study

Businesses today have become dynamic, thus the need to employ tactics that are fit to counter the competition while at the same time ensuring performance and accountability. This has led to the introduction of a data system known as IFMIS. Integrated Financial Management System (IFMIS) is an information system that tracks financial events and summarizes financial information. Integrated Financial Management System According to Arnety & Wepukhulu (2013), refers to the computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for the purpose of financial management. Dorotinsky (2003) states that, an IFMIS is an information system that tracks financial events and summarizes financial information.

It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed (Rodin & Brown, 2008). In general terms, it refers to the automating of financial operations. The existence of appropriate Systems, sound legal and regulatory frameworks as well as a competent and productive Civil Service is the cornerstone of an efficient Public Finance Management (PFM) regime.

Generally IFMIS refers to the use of information and communications technology in financial operations to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements. In the government realm, IFMIS refers more specifically to the computerization of the public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated

system for financial management of line ministries, spending agencies and other public sector operations (Chado, 2015).

In United States of America, government is convinced that the information society will result in economic and social benefits (Audenhove, 2013). The author quoting Organization for Economic Cooperation and Development notes that information infrastructures are expected to stimulate economic growth, increase productivity, create jobs and improve the quality of life. Establishment of an IFMIS has become an important benchmark for the country's budget reform agenda often regarded as a precondition for achieving effective management of budgetary resources (Karanja & Ng'ang'a, 2014).

The Indian government is responsible and accountable for providing quality public services to their citizens' at the most favorable terms because it is seen as the custodian of public funds and properties. Governments have been constantly under pressure to improve public services quality while containing costs and enhancing public accountability at the same time (Mwaura, 2016). Since the 1980s, many developed and developing countries have been embarking on public sector management reforms. According to the Economic Commission for Africa (2015), the main reason for reform of public sector reforms in the 1980s and 1990s was due to inefficiencies and ineffectiveness that normally led to high costs for projects, thus the need for governments to come up with modalities to check and balance on the projects being undertaken. It includes the mobilization of revenue; the allocation of these funds to various activities; expenditure; and accounting for spent funds (Baloyi, 2011).

In Europe, Integrated Financial Management Information Systems (IFMIS) has the ability to improve public sector management because it has the ability to provide financial information to the users to provide timely information for users and accountability to the public. The introduction of an IFMIS can be regarded as an organizational reform which deeply affects

work processes and institutional arrangements governing the management of public finance (Baloyi, 2011). Further, successful implementation of IFMIS is very important to the survival and growth of growing modern organizations. Effective IFMIS contributes towards improvements in organizations and companies productivity. IFMIS also makes organizations to have a good competitive advantage Hendriks, (2013).

In Germany, there are progressive adopting ways and systems to modernize and improve public financial management due to its significant contribution to the countries' economic growth (Kishor, Sajeev, &Callender, 2013). Globally, governments are investing a great deal of resources to streamline and improve public financial management and are implementing new financial management systems that manage tenders and payments through a web site. This is geared towards enhancing accessibility of government financial transactions, increasing efficiency and saving costs (faster and cheaper) in government financial management and improving transparency (to reduce corruption) in financial management services (Njoroge, 2015; Bilyai, 2015).

In addition, e-government has resulted to the adoption and implementation of are Integrated financial management information system (IFMIS) within the Public Financial Management (PFM) system (Dorotinsky& Cho, 2010). This is aimed at supporting the achievement of fiscal discipline, strategic and efficient allocation and use of funds, value for money and probity in the use of public funds.

New Zealand, Australia, the UK, undertook significant public sector changes to break from the traditional bureaucratic model of public administration Hood, 1991 cited by Barcan, (2010) that involved the breaking of the larger units into smaller manageable otherwise equated to devolved units in Kenya today. Governments have started to: constrain public spending, sell off public assets, and outsource many services that were previously provided

exclusively by the public sector to private companies, develop public asset performance measurement, output and outcome-based budgeting and business-type accounting.

Integrated financial management information system (IFMIS) has been incorporated in the U.S.A Department of Homeland Security (DHS) as the official Accounting and financial management system to track all financial transactions (Thaggard & Callahan, 2011). According to a report by the United States Agency for International Development USAID, (2008), the introduction of a new IFMIS system is accompanied by a surplus of issues which needs to be planned for. These include aspects related to legal framework, business/functional processes, organizational arrangements, budget classification structures, chart of accounts, change management, systems requirements/specifications, systems development, procurement of software and hardware, configuration of software and hardware, and data conversion/migration processes from budget preparation and execution to Accounting and reporting, with the help of an integrated system for the purpose of financial management (Lianzuala & Khawlhring, 2008).

According to a research done in Europe, successful implementation of IFMIS is very important to the survival and growth of growing modern organizations. Effective IFMIS contributes towards improvements in organizations and companies productivity. IFMIS also makes organizations to have a good competitive advantage (Hendriks, 2013).

In the recent past, the developing nations have also adopted public sector reform practices and are seen to be motivated by; first, governments were embarking on new terrain, and so naturally looked to learn from other governments' experiences. The complexity and size of IFMIS in South Africa has brought in many challenges and risks in implementing the process which goes beyond risks brought in by technology failure and deficient functionality. Work processes and the arrangement of institutions governing the management of public finance is affected by the introduction of IFMIS (Hendriks, 2013).

Tanzanian government decided to adopt and put into place EPICOR which is based on IFMIS. This is after a study tour to the country which took place in May 2005. On July the same year, a memorandum of understanding was signed by the Malawi Government and the government of Tanzania to enable Malawi government benefit from the exchange of visits. The Malawi government also signed a contract with soft-tech consultants for them to supply and help the government in implementing the IFMIS (Njihia, &Makori, 2015).

Public management reform, indeed the reform of the entire public sector became a major focus of most developed and developing countries after 1990 (Athanne, 2011). According to Roberts (2010), reform of different elements of the public sector, such as the recruitment and appointment of civil servants, goes back well over a hundred years and there were various efforts in many countries through the 1960s and 1970s to reform budgetary practices, expenditure management, and policy instruments such as state enterprises .However, the collapse of the Soviet Union in 1989-91 concentrated attention on major reform efforts in central and Eastern Europe, building on the Thatcher/Reagan movements to rebuild the state in the 1980s (Pal & Clark, 2014).

According to the 2005 IMF working paper, the IFMIS in Tanzania appears to be the most successfully implemented system in an Anglophone African country. Within the framework of an ambitious public finance management reform initiated in 1994, Tanzania decided to introduce IFMIS in 10 ministries, departments and agencies in 1998. The IT-solution selected was a medium-sized management and accounting package, significantly less complex than the ones used in other countries like Ghana. The roll-out plan was based on an incremental approach and focused initially on the Accountant General's Department and 10 pilot Ministries. After a consolidation phase, the system was rolled out to all 43 ministries and departments in the capital, then progressively to the entire central government and progressively introduced at the local level.

The implementation process was distinguished since the Ministry started by an initial review of the public expenditure management processes affecting budget execution and the introduction of an improved expenditure control framework and chart of accounts. Secondly, they embedded the reform process in the Ministry of Finance with an emphasis on capacity building. Thirdly, they revised and developed an enabling legislation, accounting principles, systems and necessary organizational arrangements. Fourthly, the ministry selected a midrange commercial software package supported by a high quality local consultancy company and finally, they established a structure of solid political backing which trickled down to the management level.

According to the 2005 IMF working paper, Uganda chose to implement a comprehensive financial management reform programme to improve budget and expenditure processes both at the central and decentralized levels. The design and development phase of the IFMIS got considerably delayed and only in 2003 was a company awarded the contract for the provision of a turnkey solution including hardware, software, a Wide Area Network (WAN) and supporting training/change management. This constituted the second attempt to set up a government-wide IFMIS with World Bank financing. The project encountered key design problems and the pilot run in six line ministries and four local governments brought out a number of issues in the system's functionality as well as treasury procedures. The main design problem was associated with the chart of accounts that the government had approved and the costs involved to rebuild the system were considerable. The system was put into operation with the defects unaltered. As a result, the Uganda IFMIS is performing under its potential with piecemeal, ad-hoc solutions that decrease the efficiency of the system.

Further problems encountered are common to the implementation of most IFMIS projects in public sector. To begin with there was inadequate planning, poor communication between implementers donors and government, shortage of management capacity and resources,

changes in system design without full agreement of all and poorly implemented trainings. These examples illustrate the numerous challenges involved in implementing IFMIS. Lack of high level commitment, ineffective project coordination, loose project design and planning, institutional resistance to change, inadequate technology and lack of human resource capacity are some of the factors often cited for the failure of such schemes.

A 2006 paper by the Kennedy School of Government presents a case study of Ethiopia as an illustration of a successful and to some extent unconventional approach to automating public financial systems. This case study is especially interesting as it challenges the traditional wisdom usually associated with such schemes. In Ethiopia, the automation process faced major challenges of resource, capacity, infrastructure, changes in government and dependency on foreign aid policies. Therefore, the reform strategy prioritised a pragmatic sequential approach based on the logic to ensure that the "basics" are in place before moving to more complex systems. A strategic choice was made to drive the automation process from the procedural requirements which were defined by the users, through an incremental and iterative approach, with government staff extensively being involved. The reform process first focused on bringing existing system up to date through simplification, elimination of backlogs and sequential procedural change before introducing new systems. Constant consideration was given to limit the burden imposed on scarce staff throughout the whole process.

This strategy was justified by low level of skills, evolving fiscal decentralization and the general degradation of the financial system that had taken place over the previous years. The government of Kenya has for a long time been very much concerned over the persistent poor performance in financial management due to lack of reliable and timely information for decision making. A review by the department of accountant general at treasury, financial management, accounting systems and role of audits revealed weaknesses in the management

of financial information. The review focused on the need to develop a strategic plan aimed at improving the financial management systems; skills and capacity within the government financial operations units. It also reviewed how timeliness of financial information, if improved, could form the basis for improving control of expenditure against budget (Kinyua, 2011).

The government of Kenya took an initiative to address the shortcomings of the financial reporting system and to ensure good governance. The International Monetary Fund (IMF) carried out a survey in government accounting in early 1993 followed by a diagnostic study sponsored by the World Bank; this led to introduction of IFMIS. The ministry of finance, Meru County, is faced with some challenges which makes the implementation of IFMIS difficult. Some of these challenges are inadequate finance which makes it difficult to implement IFMIS. Secondly, the implementation cost is a challenge for the County government (Nganga, 2014).

According to the IFMIS Strategic plan 2011-2013, the re-engineering process focused on automation of three high-level processes: the budget process, the exchequer process and the payment process. Budget planning was not fully integrated with IFMIS in the initial implementation phase. Therefore the re-engineering aimed to provide a real-time linkage between the budget planning application and IFMIS. The exchequer process involves the function of distributing available funds to ministries in accordance with their budget plans and cash-flow forecasts. With the initial IFMIS implementation, no tools were available to manage release of funds and manual upload of individual figures had to be done by the IFMIS department.

The re-engineering module introduced the cash management module which provided the exchequer unit with key functionalities and information which would assist in managing exchequer releases and ensure better management of ministry accounts. The payment process

represents the government's expenditure approval process. The IFMIS Academy has been setup to undertake continuous training for all users of the IFMIS platform including suppliers and public servants, and to address any emerging issues.

Over the last five years, the Kenyan government has initiated some capital investment towards set up and installation of ICT infrastructure. Funding for these investments is achieved through partnerships between the government and development partners. The foreign funding component constitutes the largest percentage of this investment in terms of technology. The government contribution is usually in the form of technical and support staff and facilities including buildings. So far, the Government Information Technology Investment and Management Framework is connecting all ministries to the Internet under the Executive Network (Limo, 2003).

The government is also connecting the Ministries to run integrated information systems for example the Integrated Financial Management Information System (IFMIS) and the Integrated Personnel and Pensions Database (IPPD). In Kenya, most ICT projects are initially donor funded and hence IFMIS was no exception. Again, some donations are made without prior consultation or carrying out a needs analysis by the recipient organization. Further, operational/running costs are met by the government with donor funding (capital and human resource requirements) ending with the first project phase. The budgets for such projects are inadequate but rising, there is lack of ICT policies and master plans to guide investment to the extent that, with different number donors funding several ICT projects, there has been cases of multiple investments for the same product due to lack of coordination. Finally, there has been lack of focus on ICT applications that support traditional administrative and functional transactions rather than on effective information processing and distribution within and without government departments.

IFMIS has now been rolled out to most of the Accounting units (Ministries) except Defense, NSIS, KACC and Northern Kenya which are almost ready for roll out with the system. Out of the five modules; General ledger, Accounts payable, purchasing orders, cash management and public sector budgeting, only the first three have been implemented. However, each Ministry using this new system has experienced frequent problems with the introduction of new computer systems. For instance, an investigation carried out Accountants General office, (GOK/KPMG, 1997) found that the computer upgrade in the various Ministries including treasury has suffered from persistent problems, limiting the department's capabilities. In a similar vein, DFID has also commented more generally that: "In Kenya there is a lack of political or bureaucratic will to use the budget as the authoritative tool in resource allocation or to use the output of the IFMIS to hold people to account.

At an absolute minimum, the Ministry of Finance Accountant General's Department may not be willing and able to substantially influence the accounting operations of spending Ministries" (DFID, 2003). This confirms the fears that the implementation of the IFMIS in Kenyais facing serious doubts among management, and employees using it are resisting intheir own ways. The system has been seen as too complex to handle daily routine work and the experts in the Ministry of Finance doubt the adequacy of the solution provided by the new system. In addition and perhaps because of the other problems, there has been some resistance and sabotage to the project, and hence the challenge of dealing effectively with resistance to implement it (World Bank, 2004).

The management commitment for change is questionable if the gap is too large. If existing rules are ignored or manipulated by powerful interest groups, it is difficult to imagine that this behavior will fundamentally change with a new IFMIS, which is based on compliance with formal rules. There is increasing concern on IFMIS effectiveness, at a time when most Ministries have rolled out the system. The final users of the system have not been properly

prepared to handle a system of such magnitude. Thisis attributed to the fact that training in Ministry is supply, rather than demand driven (KPMG/ AG Report; June 1997). The introduction of an IFMIS by any government should be regarded as part of a long process of reform. This process takes time to fully implement, costs millions of dollars, and has a substantial recurring operating cost. Thus IFMIS should be regarded as a major project requiring a structured project management approach. However, a hurried installation of the system may be the government undoing (Gibson and Nolan, 2003). IT systems that started small and are iteratively expanded are less likely to fail or underperform because the associated risks can be managed.

IFMIS can be simply defined as a computer application that integrates key financial functions such as accounts and budgets and promotes efficiency and security of data management and comprehensive financial reporting. It provides a solution to the problem of "stove- piped" financial systems that do not talk to each other and do not produce a timely and comprehensive picture of a country's financial position. The main objective of this project was to computerize the whole accounting and auditing system in all the national government departments (Kinyua, 2011).

1.2 Statement of the Problem

The National Treasury is charged with the responsibility of providing proper budgetary and expenditure management of government financial resources. In this regard, the ministry has been continually striving to improve financial management systems through various public financial sector reforms programs, aimed at increasing transparency, accountability, as well as responsiveness of public financial resources to enhance the quantity and quality of public service delivery to meet its developing priorities in government ministries (Karanja&Nyambura, 2014).

The government has over the years introduced and implemented financial reforms in all the national government departments through the ministry of finance in order to increase the accountability and transparency in the use of government funds. IFMIS was meant to institutionalize a culture of accountability, transparency and a measure of achievement.

Hendricks (2012), submits that a well-designed IFMIS provides some important features that help detect overpayments, fraud, and theft. For example, patterns of suspicious activities, automated identification of exceptions to normal operations, automated cross referencing of personal identification numbers for fraud and of asset inventories with equipment purchase to detect theft and automated cash disbursement rules and identification of non-existing workers.

IFMIS was supposed to be implemented in all national government departments and this has raised a number of issues since the system has not been functional in most of the national government departments. The central bank report (2013) on financial deepening service on IFMIS implementation showed that only 15% of national government departments have implemented IFMIS, which is far much below the expected 85% by 2013. Thus, in spite of all these government efforts to modernize and develop financial frameworks in the public financial management in all the national governments departments, the implementation of IFMIS which was to increase efficiency and effectiveness in service delivery has not been achieved.

1.3 Purpose of the Study

The purpose of the study was to establish the determinants of integrated financial management information system implementation, in the national government departments in Meru County.

1.3.1 Objectives.

The objectives of the study are to;

i.   Establish the influence of staff competence on IFMIS implementation in public organizations

ii.   Assess the influence of government policies on IFMIS implementation in public organizations

iii. Determine the influence of top management support on IFMIS implementation in public organizations

iv.   Find out the influence of technological infrastructure in IFMIS implementation in public organizations.

1.4 Research Hypothesis

Ho: There is no significant relationship between staff competence and IFMIS implementation in national government departments.

Ho: There is no significant relationship between government policies and IFMIS implementation in national government departments.

Ho: There is no significant relationship between top management support and IFMIS implementation in national government departments.

Ho: There is no significant relationship between technological infrastructure and IFMIS implementation in national government departments.

1.5 Significance of the Study

This study is of benefit to the government management teams. These are the people entrusted by the government to take care of public interests through offering service. The study will help the government management to improve on financial policy and implementation of

IFMIS for overall sustainability of this sector. The report brings to light issues requiring legal framework for the overall IFMIS sustainability in the public sector.

The research output will also be helpful to the County government. The study will help county government since they are in the process of implementation of IFMIS to overcome the challenges experienced by the national government. Moreover, this study is of great help to the policy makers in order to formulate successful IFMIS implementation policies and programmes that enable in allocating the scarce financial resources to the enhance the IFMIS implementation, maintenance and training of staff.

Other researchers in this area will find this research report useful. They will get recommendations for further research from this study.

1.6 Limitation of the Study

This study was limited to just four independent variables. These variables are not the only ones which determine implementation of IFMIS in national government departments in Meru county, as indicated by the strength of the regression model in chapter four. The study was ones again limited by boundaries of Meru county and in national government departments, where as IFMIS is implemented in the entire country, with even county governments adopting it.

1.7 Scope of the Study

The study was concentrated on the determinants of IFMIS implementation in the national government departments. The study was carried out in the national government departments in Meru County. It evaluated specifically how staff competence, government policies, top management support and technological infrastructure influence implementation of IFMIS in national government departments. It covered the management level employees, who are

directly involved in implementation of IFMIS in the national government departments. There are 68 management level employees from the various national government departments in Meru County, who play the role of IFMIS implementation. These formed the target respondents.

1.8 Assumptions of the study.

The study assumed that there were no serious changes in the composition of the target population that affected the effectiveness of the study sample. This study also assumed that the respondents were honest, cooperative and objective in the response to the research instruments.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of the past studies. The purpose of the review is to examine the available studies from other scholars and researchers who have done studies on the same subject under investigation. This chapter presents the literature related to the study on factors that affect the adoption and implementation of IFMIS in the devolved units. It contains theoretical review, theoretical framework, empirical review, conceptual framework, operational framework and summary of the literature review. The literature available provided a guideline to the study and offered a critical analysis of the past studies.

2.2 Theoretical Review

This section contains theories that have been used in this study. These are the theories that support this study on IFMIS and its implementation in the national government ministries.

2.2.1 System theory

Systems theory is an interdisciplinary theory about the nature of complex systems in nature, society, and science, and is a framework by which one can investigate and/or describe any group of objects that work together to produce some result.

Systems theory is the interdisciplinary study of systems. A system is a cohesive conglomeration of interrelated and interdependent parts that is either natural or man-made. Every system is delineated by its spatial and temporal boundaries, surrounded and influenced by its environment, described by its structure and purpose or nature and expressed in its functioning. In terms of its effects, a system can be more than the sum of its parts if it

expresses synergy or emergent behavior. Changing one part of the system usually affects other parts and the whole system, with predictable patterns of behavior. For systems that are self-learning and self-adapting, the positive growth and adaptation depend upon how well the system is adjusted with its environment. Some systems function mainly to support other systems by aiding in the maintenance of the other system to prevent failure. The goal of systems theory is systematically discovering a system's dynamics, constraints, conditions and elucidating principles (purpose, measure, methods, tools, etc.) that can be discerned and applied to systems at every level of nesting, and in every field for achieving optimized equifinality.[1]

Systems theory was proposed in the 1940's by the biologist Ludwig von Bertalanffy (: General Systems Theory, 1968), and furthered by Ross Ashby (Introduction to Cybernetics, 1956). von Bertalanffy was both reacting against reductionism and attempting to revive the unity of science.

In Systems theory, Wang (2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating (due to feedback) in the system it can be called information. In other words, it can be said that information in this sense is something potentially perceived as representation, though not created or presented for that purpose. According to Rudholf (2015), Systems theory is a science which has the comparative study of systems as its object. While Kang'ethe (2002), opines that a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives.

Chado (2016) poised that the need for efficiency and effectiveness therefore brings forth another need of ensuring harmony and synergy between the human resource as the core

resource that controls other resources on the one hand and the other tools of trade, in particular modern ICT on the other hand so as to realize the objectives of office secretarial management. There is therefore the clear need to understand the perception of human resource and areas with potential for conflict in the course of interaction between the human resource and modern ICT. When computer and communication technologies are combined, the result is information technology systems, or InfoTech.

Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of information technology as a whole, it is noted that the use of computers and information are associated.

It evolved to emphasize the constructive power of the observer, who controls/constructs models of the systems with which the observer interacts. The major purpose of systems theory is to develop unifying principles by the integration of various sciences, natural and social.

Systems Theory is used to develop a holistic view of individuals within an environment and is best applied to situations where several systems inextricably connect and influence one another. It can be employed in cases where contextual understandings of behavior will lead to the most appropriate practice interventions.

In this study, this theory plays an important role by helping in fighting corruption in public finance systems by promoting greater comprehensiveness and transparency of information across government institutions. As a result, the introduction of IFMIS has been promoted as a core component of public financial reforms in many developing countries. Yet, experience shows that IFMIS projects tend to stall in developing countries, as they face major institutional, political, technical and operational challenges. Case studies of more successful countries indicate that factors supporting successful implementation include clear

commitment of the relevant authorities to financial reform objectives, ICT readiness, sound project design, a phased approach to implementation, project management capability, as well as adequate resources and human resource capacity allocated to the project.

2.2.2 Normative theory.

A normative theory (in decision-making) is a theory that is voided of judgments or biases. These theories are rooted in first principles thinking, or logic.

Normative generally means relating to an evaluative standard. Normativity is the phenomenon in human societies of designating some actions or outcomes as good or desirable or permissible and others as bad or undesirable or impermissible. A norm in this normative sense means a standard for evaluating or making judgments about behavior or outcomes. Normative is sometimes also used, somewhat confusingly, to mean relating to a descriptive standard: doing what is normally done or what most others are expected to do in practice. In this sense a norm is not evaluative, a basis for judging behavior or outcomes; it is simply a fact or observation about behavior or outcomes, without judgment.

Mclnnes and Carleton (1982), assert that a theory of corporate financial management is summarized from the broad flow of finance literature. Within this, contributions to a normative theory, amenable to corporate financial modeling are reviewed in some detail. The central propositions of a normative theory are isolated to provide a basis of comparison for the practice of financial modeling as observed through field research study. They noted that compared to previous experience, computer-based financial modeling systems are today gaining much greater acceptance in business organizations and government institutions. Against this backdrop, a wide gap seems to exist between the information and logic structures programmed into financial models, and the precepts and algorithms derived from a normative theory of corporate financial management.

It was further argued that there are three major implementation difficulties creating the gap between theory and practice (Mclnnes & Carleton, 1982). First, it is observed that there is a constraint in constructing the relevant information in a form which would be meaningful in a normative framework. Within the broad set of managerial activities of an organization, there are several relevant logic structures, including: a financial accounting structure; an economic structure dealing with cash flow, economic value, and marginal rates of return to investment: operating information structures dealing with the conduct of an organization's work; and strategic information structures dealing with an assessment of the external and internal human needs which provide a rationale for an organization's present and future existence. The systematic provision of information in each logical mode, and the translation between modes, poses a considerable intellectual and practical challenge.

The theory concludes that there is the problem of dealing satisfactorily with strategic uncertainty, and the way that uncertainty is distributed within the managerial organization. Finally, multiple and conflicting goal dimensions posed considerable problems in terms of explicit modeling of corporate objective function. Beyond the intellectual difficulties, moreover, there are political dimensions which cause a reluctance to address an objective function explicitly and directly.

Normative theories of decision making have provided prescriptions of how people should make decisions. The theories provide prescriptive functions or decision rules to help people maximize expected utility of outcomes. The normative rules serve as the rational standards to which people's actual behaviors are compared.

Normative finance theory provides a powerful logic for designing information and decision-making structures to support corporate planning. At present, however, the research by Mclnnes and Carleton (1982), reported that the finance model is incomplete, particularly with

regard to inclusion of behavioral and political dimensions of institutional processes under uncertainty.

Structuration theory was advanced by Giddens (1984) and is based on the premise that the classic structure dualism has to be conceptualized as a duality, that is, the duality of structure. The structural properties of social systems exist only in forms of social conduct and are reproduced chronically across time and space.

Behaviour and structure are intertwined; people go through a socialization process and become dependent of the existing social structures, yet at the same time social structures are altered by their activities. This implies that social structures are the medium of human activities as well as the result of those activities (Indeje & Zheng, 2010). Social structures not only restrict behaviour but also create possibilities for human behaviour. The Structuration of institutions can be understood in terms of how it comes about that social activities become 'stretched' across wide spans of time-space.

Holbeche (2016), structuration theory tries to recast structure and agency as a mutually dependent duality. Canary and Tarin (2017) describes structuration is a social process that involves the reciprocal interaction of human actors and structural features of organization. Medlin (2001) assert that ideas, practices, organizational arrangements, roles and statuses in the information system reflect the wider socio-cultural and political economic context in which they occur and are influenced by that context. Given the pervasiveness of technology in organizations' everyday operations and especially the role of IT in the process of enactment and reality construction in contemporary organizations, some attempts have been made to advance Gidden's ideas by including an explicit IT dimension in social analysis (Godara, 2010). As a result of such attempts, structurationist analyses have helped to increase our understanding of important IT-based contemporary phenomena.

Structuration theory is based on the fact that it provides an understanding of human work as social interaction within a culture, mediated by artifacts such as tools, language, rules and procedures, and open to change. Thus this theory as posited by Indeje and Zheng (2010), offers a broad understanding of the organizational culture in which the IFMIS development and implementation process is taking place. The structuration theory recognizes that human actions are enabled and constrained by social structures, which emanate from previous human actions, which Folger (2014) describes as the duality of structure. 'Structures' consist of norms, rules and resources those human actors recursively employ in their everyday interactions. These rules and resources mediate human action and at the same time delimit the same action.

In this study, the theory helps to understand the key conceptual approach by providing the link between human actions in financial information systems - FIS (that is, the personnel involved in county government financial management) and the social structures, the public financial management organizational structure within which the FIS is found. People act within structures that they change through their actions, which gives them the ability to change their environment.

2.2.3 DeLone and McLean Model of Information Systems Theory

To under pin DeLone and McLean's model in assessing the effect of IFMIS use in public sector, this research seeks to utilize DeLone and McLean (2003) introduced an update to their Information System success model. The main reforms concerned quality and service quality was included in the model. Indeed DeLone and McLean (2003, 23) note: "As discussed earlier, quality has three major dimensions: information quality, systems quality and service quality". They also added Intention to Use to the model. Finally, they removed Individual

Impact and Organizational Impact and replaced them with Net Benefits; further, they added feedback loops to Intention to Use and User Satisfaction.

The model is interpreted by system quality (technical quality) and information quality (output quality) which affect both consumption and user satisfaction. The amount of consumption can affect user satisfaction and vice versa either positively or negatively. Use and user satisfaction are antecedents to individual impact which impact on the organization. Daoud and Triki, (2013) in their literature review identified Delone and McLean's model to be used in accounting information systems. Researchers went further and showed that this model is valid in one dimensional and can be applied in any accounting information systems context.

According to Zaied (2012), many information researchers have supported the updated Delone and Mclean updated model. The same realized and encouraged the Government and Private Authorities to include measures for system use, system quality, information quality, service quality, user satisfaction and perceived net benefits in their techniques of Information System.

The Government and corporate organizations are investing heavily in e-commerce applications which are internet based platform but faced with a situation on how to evaluate their success. The updated IS model has been adapted to come up with e-commerce IS success model Zaied (2012). IFMIS is an online system and hence qualify to be an e-commerce application. A lot of information can be borrowed from this where the primary system users are external customers or suppliers or the government employees. They use the system to make buying or selling and execute business transactions. The decisions made will impact the individual users, organizations and even the economy at large.

Updated Delone and Mc Lean model (2003) has six multidimensional factors which are used to evaluate the information success. According to (Petter, 2008) early attempts to define information systems performance were not successful due to the complex nature and

multidimensional nature of information success. The model has been modified by Delone and McLean by replacing the constructs such as the organization and the individual impact with net benefits at multi-level analysis. This has made the model to be applied to whatever level of analysis considered by the researcher. System information and service quality usefulness satisfaction and the net benefit can be fit well in the evaluation of IFMIS performance. All the characteristics used in the system quality such as the flexibility of the system, reliability, response time, ease of use all qualify in evaluating IFMIS. Information quality which includes the system output such management reports should be accurate and relevant and understandable.

2.2.3 Rodger's Theory of Diffusion of Innovation

Diffusion of innovation (DOI) theory was developed by Rodgers in 1962, and is argued to be one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product. Adoption means that a person does something differently than what they had previously (that is, purchase or use a new product, acquire and perform a new behavior, etcetera). The key to adoption is that the person must perceive the idea, behavior, or product as new or innovative. It is through this that diffusion is possible (Sahin, 2006).

Adoption of a new idea, behavior, or product (that is, innovation) does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation (LarMonte, 2018).

According to Medlin (2001), Rodger's theory of innovation's diffusion is the most appropriate in understanding the adoption of a given technology. In the context of the current study, the aforementioned theory enables the investigation of adoption of IFMIS by National Governments departments. As Rodgers posits, adoption is a decision of full use of an innovation as the best course of action available, while rejection is a decision not to adopt an innovation. This reasoning will be applied to explain embracing of and resistance to IFMIS in national Governments departments.

In tandem with Rodgers theory, four main elements in the diffusion of innovations ought to be understood. These are the innovation, communication channels, time, and social system (Sahin, 2006). As Rodgers (2003) defined, an innovation is an idea, practice, or project that is perceived to be new by an individual or other unit of adoption. In this light, national governments departments regard IFMIS as an innovation since it fits the aforementioned description. Communication is asserted to be the process in which participants create and share information with one another with the aim of reaching a mutual understanding. Communication is occurs through channels between sources. To enhance the diffusion of IFMIS in national governments departments, it should be ensured that the system is communicated through the most effective channels. It is further observed that innovation diffusion process includes a time dimension. More so, the nature of social system affects individuals' innovativeness, which is argued to be the main criterion for categorizing adopters.

This theory helps in enhancing the diffusion of a technology (or innovation), it is of particular importance to understand the innovation decision process. The process entails five phases which include knowledge, persuasion, decision, implementation, and confirmation phases.

This study is based on Rodger's Theory of Diffusion of Innovation. This theory helps in understanding how the respective users are informed of the introduction of IFMIS in the system of National Governments departments. Also, it would be ration to understand how the elements of elative advantage, compatibility, complexity, trainability, and observability, are of essence in persuading the pertinent County Government officials to embrace IFMIS in their operations. In addition, understanding, the decision made by the relevant personnel (if at all they have a choice on the same) and how the IFMIS is implemented was of utmost importance. Conclusively, by applying the Rodgers theory, the researcher was in a position to confirm the potential effects of diffusion of IFMIS by the national governments departments.

2.2.4 Schumpeterian Theory of Creative Destruction

Schumpeter (1939) viewed innovations as everlasting gales of creative destruction that were substantive forces propelling growth rates in a capitalist system. Schumpeter's initial thinking was developed over his entire lifetime to the extent that some researchers have distinguished his initial thought where the innovation was greatly dependent on exceptional persons willing to take up exceptional hazards as "an act of will", i.e., entrepreneurs, from his later thought that recognized the role of big enterprises in organizing and supporting innovation. This culminated in his emphasis on the role of oligopolies in embracing innovation and which later on was falsely perceived as the major contribution of his work. Schumpeter (1939) highlighted the disruptive nature of technological change that brings the inseparable combination of long-term growth and short-term instability. He wasn't a technological determinist but appreciated the organization and social forces that played key roles in the cyclical process of industrial change. Schumpeter continued to argue that entrepreneurs, who could be R&D engineers or independent inventors in large corporations,

created new profits opportunity with their innovations. In turn, imitators attracted by high profits would commence a wave of heavy investment that would eventually erode the profit margin for the sought innovation. However, before the organization could equilibrate a new type of innovation or set of innovations, conceptualized by Schumpeter as Kondratiev cycles, would emerge to start the business cycle over again. However even with that knowledge on innovation role, Schumpeter still falls short of explaining the source of innovation. He pointed out its role and importance in economic cycles timing but failed to address its source. To this end, the innovation research that followed the opinion set by Schumpeter has always concentrated on the development of innovation and the following diffusion between firms.

Creative destruction refers to the incessant product and process innovation mechanism by which new production units replace outdated ones. Obstacles to the process of creative destruction can have severe short- and long-run macroeconomic consequences.

The saving grace comes from recognizing the good that comes from the turmoil. Over time, societies that allow creative destruction to operate grow more productive and richer; their citizens see the benefits of new and better products, shorter work weeks, better jobs, and higher living standards.

In this study, Schumpeterian theory is relevant because new technology, marketing and management innovation could bring a short term disruption but a long term benefit.

2.4 Empirical Literature Review

This section contains a review of the past studies. The purpose of the review was to examine the available studies from other scholars and researchers who have done studies on the same subject under investigation.

2.4.1 Staff Competence and IFMIS Implementation in Public Organizations

In their study of developing countries specifically Ghana, Malawi, Tanzania, Uganda and Kenya, Diamond and Khemani (2006), argue that necessary measures should be taken to reinforce the capacity in the IFMIS project team as well as the Attorney General's (AG's) office and the budget office through all the project phases. At the same time, they note that it is equally important to develop the necessary skills and capacity of the central IT department to provide strong support to the IFMIS. For the success of the IFMIS project it ought to be ensured that there is continuity of key personnel involved in the system's development and implementation. Lack of capacity has been pointed out by Hendrick (2012) in his study as one of the most poignant derailments to the effectiveness of an IFMIS.

According to Jucius M.J. (1971), Human Resource Management is that field of management which oversees planning, organizing, and controlling various operative activities of developing, procuring, maintaining and utilizing a labor force in order to attain objectives. They both agree on the aspect of functions of management. Therefore Human Resource Management can be said to be the management of functions of management in order to achieve organization's goals and objectives. Capacity building is an important factor influencing the success of IFMIS implementation, especially in developing countries (Chêne, 2009).

IFMIS entails more than only implementing a project. It also means planning for capacity building. A scrutinized training program is therefore important for the achievement of the goals of the project and ought to be gathered as early as possible. Training is essential to unlocking client readiness and is the best way to ensure sustainability of a system (Vickland & Nieuwenhuijs 2005). In order to build the required capacity, it is important to create a

learning environment at the initial stage of the project and to treat the whole process as a learning opportunity with training and capacity building being part of an ongoing process. Senior managers, technical staff, and end users should also be offered with training and should teach users how to handle new system and how it affects business operations and processes.

Diamond and Khemani (2006), however, argue that the training will not only involve training in the use of IFMIS for the respective operations and functions, but will also involve training in the new scope of legal and regulatory, codes and classifications, and the new put in place business procedures

It is noteworthy that according to Brar (2010), low capacity for system implementation at the sub-national level such as provincial and regional governments is one of the main challenges in the implementation of the IFMIS in developing countries. This factor according to him is very pertinent to the South African context with its nine provinces and the consequent demand that the duplication of efforts creates for skills and knowledge, of which a shortage already exists. Farelo and Morris (2006) further contend that the personnel development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within the government.

It is noted that the effective implementation, operation and maintenance of an IFMIS require personnel with the required knowledge and expertise. Diamond and Khemani (2010) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process in Ghana. On the other hand, the emphasis on capacity building through training was one of the major contributing factors to the success of IFMIS in Tanzania. Chene (2009) adds that absence of staff with the requisite information technology (IT) knowhow and experience cannot be mitigated with ease through training and hiring. The

salary structure and terms of employment in the public sector are more often than not unable to compete at par with the private sector. Needless to say, candidates possessing it skills are not incentivized to join the public sector. To aggravate the situation, many trained personnel leave the public service for better job opportunities elsewhere.

For the IFMIS project to be successful, in addition to internal resources, great care should be taken when outsourcing especially in terms of technical assistance during different phases of the system's development and implementation . The external consultant should have extensive experience in the public sector financial management. The consultant should essentially be an expert in design, implementation, management and operation of government accounting, budget and financial management systems especially in a developing country's environment. He or she must have experience in the management and operation of modern computerized financial systems in a government budgeting and accounting environment (Wong, 2010).

Complementary experience in training, management development, human resource management and organizational change in developing countries ought also to be a prerequisite. The consultant, finally, should also have experience in project management and implementation, working in the advisory and training capacity in developing countries. The scholars caution that the consultants need to be managed closely since they may be inclined towards pursuing their own interests to the detriment of the institution's IFMIS objectives (Diamond &Khemani, 2006)

Mwiwa (2011) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Systems improvements (that is, macro model, MTEF, performance budgeting, cash management,

IFMS, payroll/personnel systems) are typically undermined by failure to address complimentary human resource (manpower planning, recruitment, incentives, training), organizational restructuring and improved management capacity (delegation, middle management empowerment, team building). He further posits that IFMIS implementation is hindered by over-complex change projects requiring high levels of technical and management capacity.

According to GoK (2011), the Kenya's IFMIS Re-Engineering Strategic Plan 2011 – 2013 has identified appropriate capacity building for system's sustainability, competent firms and consultants supporting the implementation as some of the key success factors for the IFMISRe-Engineering Strategy. Kwena (2013) in his study of Kenya's ministries found that the capacity and technical knowhow was low due to lack of training and hurried implementation of the system. He recommends that the users of the system need to undergo on-the-job training in order to improve their skills and capacity to use the system.

Gakure and Ngumi (2013) suggests that the key to service delivery in financial management is to adapt to circumstances that are constantly changing and that the long-term winners are the best adapters, but are not necessarily the winners of today's race for market share. Government quality of service often fails because of the sum total of seemingly inconsequential events arising from employees lack of capacity as in itself service delivery requires specific skill levels and experience which must be continuously learned.

According to Bascal (2009), financial management is one of the basic functions practiced in all organizations. It is the way forward and represents the future for best practice organizations. Through this function, bases are determined for authority levels of financial control, budgeting and processing financial resulting information. Through time and as

practice demands, some organizations merge the role of human resource management with administration, hence, titles such as head of finance and administration, finance and logistics, or manager of support services. The governance of an organization is the practice of putting things together orderly and making an organization to function effectively.

Leiderer (2007) examined Public Financial Management for PRSP Implementation in Malawi: Formal and Informal PFM Institutions in a Decentralizing System. The study aimed at examining the implications of decentralizing public financial management system for PRSP implementation. The study found that one of the major shortcomings undermining sound PFM in Malawi was lack of adequate human and technical capacity in key PFM positions, combined with insufficient financial, organizational and human resources management. The study recommended that the introduction of new PFM tools should always be accompanied by systematic long term and timely capacity development. This involves establishing mechanisms to disseminate specific knowledge acquired by individuals to all relevant stakeholders in order to preserve the gained knowledge and capacity for the institution.

ICPAK (2014), in its baseline survey report on Devolution in Kenya with Respect to Public Financial Management Systems found that though most counties rated their interaction with IFMIS as proficient or good, there were some challenges noted. These include system user challenges due to limited practical training on some of the key modules installed. The study further recommended that regular training of county treasuries should be undertaken to enhance their technical skills in IFMIS.

2.4.2 Government Policies and IFMIS Implementation in Public Organization

According to Kenya Treasury (2015), the government has put in place policies to support the IFMIS implementation in public organization. However these policies may not be enough to support IFMIS. Ouma (2011) argued that there is rigidity in public organization policy

formulation and this resulted to delay in the IFMIS implementation in public organization. Most public organizations rely much on policies cascaded from the top authority in order to IFMIS implementation in public organization.

Internal control systems are the policies and procedures put in place by the management of a government agency to ensure the agency achieves its objectives and complies with external laws and regulations. Such policies and procedures tend to cover monetary book-keeping and reporting, performance monitoring, asset management and procurement (Simson, 2011). IFMIS can also enable management to do the following as a management tool: control aggregate spending and the deficit, prioritize expenditure across policies, programs, and projects to attain efficiency and transparency in the allocation of resources. It also makes better use of budgeted resources, namely, to achieve outcomes and produce outputs at the lowest possible cost (Hendricks, 2012). In other words, the benefits anticipated in implementing IFMIS are enhanced governance, reduced fraud, transparency and accountability, and better monitoring and evaluation. According to Oz (2006), the goal of financial managers, including controllers and treasurers, is to manage an organization's money as efficiently as possible.

According to Zarruk (2008), delays in formulating friendly and supportive strategies will always make IFMIS implementation in public organization to fail. In his study, he recommended that the government should give authority to mangers in the ground to formulate policies that they consider necessary for strategic implementations. However, all these policies have to be in line with the legal framework set the government and help in realizing the mandate of the organization as provided by the Act or by any other written law. Great strategies are worth nothing if they cannot be implemented. It can be extended to say that better to implement effectively a second grade strategy than to ruin a first class strategy by ineffective implementation. Less than 50% of formulated strategies get implemented.

Every failure of implementation is a failure of formulation. The utility of any tool lies in its effective usage and so is the case with strategy. Strategy is the instrument through which a firm attempts to exploit opportunities available in the business environment. The performance of a firm is a function of how effective it is in converting a plan into action and executing it. Thus implementation is the key to performance, given an appropriate strategy (Barajas et al., 2007). Implementation has been defined as "the process by which strategies and policies are put into action through the development of programs, budgets and procedures". This involves the design or adjustment of the organization through which the administration of the enterprise occurs. This includes changes to existing roles of people, their reporting relationships, their evaluation and control mechanisms and the actual flow of data and information through the communication channels which support the enterprise (Capri, 2010).

2.4.3 Top Management Support and IFMIS Implementation in Public Organizations

Ncebere (2000) many organizationsfail due to poor management. In order to establish how an organization profitability is measured through efficiency of its management. According to Kibera (2008), management can be defined as a set of activities directed at the efficient and effective utilization of resources in pursuit of one or more objectives. The resources are usually people, machines, materials, time and managerial know-how. There is concern on the calibre of leaders who run public organizations. Since they are public entities government can appoint anybody they like, who may not necessarily have the skills to run the organization.

Sambu (2010), poises that the duty of the management is to oversee, guide and direct public sector movement in terms of human resource. This is supervised by a chairman of public service, who has authority derived from the public service Act. The management of public organizations comprises of the top manager and the same management team with the primary responsibility of ensuring performance. Specific management practices have been found to

34

improve corporate performance;- three dimensional strategy comprise exploration of new horizons, selectivity and drive, making wisdom contagious by empowering independence, interaction and communication among employees, focusing on group performance rather than individual performance, external processes which include benchmarking, systems for feedback both from suppliers and customers and continuous innovation based on internal and external evaluation.

IFMS demands a commitment by the top management; in procedures and processes; including skills, behavior and responsibilities changes (Chêne, 2009). IFMIS is a complex and risky system requiring motivation to change so as to be implemented effectively. This requires both the top management and the staff to be willing and committed to change in the use of technology (Otieno, Migiro & Mutambara, 2017). The top management involvement is critical.

In many cases, managers do not actively participate in the implementation of IFMIS programmes and some do not adequately take political will and the individual incentives role in to consideration (Combaz, 2015). Thus, the effective implementation, operation and maintenance of the IFMIS require top management support and staff with the necessary knowledge and skills (Njihia & Makori, 2015).

According to Mwaura (2012), actions of top management affect performance. He also recommended that members, when electing office bearers, including delegates, should ensure that they elect trustworthy persons. Success and hence performance depends on the calibre of the officials that they elect. Corporate governance seeks to find appropriate mechanisms for governing relationships for constituent groups with the company so as to generate a long term value. It also seeks to reduce conflict of interests among the stakeholders by making sure that right people make the decisions. Corporate governance is to create and implement internal organisation of the company and define more closely and represent more pressing interests to

which the management should respond and goals towards which they should strive. Therefore it implies that corporate power is exercised in the best interest of the society.

The focus of corporate governance is on the systems by which companies are directed and controlled. Corporate governance is the process by which organisations are directed, controlled and held accountable. Corporate governance is at the heart of corporate success and it can have a significant influence on the country's development. Effective corporate governance will ensure long-term strategic objectives and plans are established and that proper management structure is in place to achieve those objectives while at the same time making sure that the structure functions to maintain the company's integrity, reputation and accountability to its relevant constituencies. The right systems of checks and balances should be on the basis of merit or any corporate governance system (Kroszner, 2005).

According to Ibrahim (2012), a good governance system is one that respect and follow the due process of organizational policies and procedures. It should have checks and balances, and there must be segregation of duties. Good governance does not favour concentration of functions on one individual, it encourages cut off points where each employee respects the limits of his or her authority in the organization. As far as organizational governance is concern, finance and administration are two separate functions, and separation must come into play, else there is no separation or segregation of duties, one person is executing or strongly influencing the functions of human resource and of administration.

Diamond and Khemani (2005) in their IMF working paper on Introducing Financial Management Information Systems in Developing Countries, sought to investigate the reasons for the almost universal failure to implement and sustain IFMIS in developing countries. They found that senior managers in DCs rarely delegate responsibility and lack experience in computerized accounting, and are therefore unable to grasp its possibilities for financial

management. In this environment, there is likelihood that systems will not be user friendly, will not match the needs of the managers and will not have the required level of management ownership.

They recommended that IFMIS implementation should have a solid backing at the political level which will then trickle down to management level, citing this as the reason Tanzania's IFMIS implementation was the most successful in all Anglophone countries. Kimwele (2011) analyzed the Factors Affecting Effective Implementation of IFMIS in Government Ministries in Kenya. The study aimed at determining the effectiveness of IFMIS implementation in the Kenyan government ministries and the factors that influenced the successful implementation of IFMIS.

The study concluded that the laxity of top management to support the use of the IFMIS system had affected its effective use by government employees. They failed to inspire and had little understanding of the use of IFMIS, further the study recommended that this problem could be addressed by providing more training to top management and other users of the system. Mwakio (2015) investigated the Challenges Facing County Governments in the Implementation of IFMIS in Taita Taveta County. The study aimed at finding out why there was still poor management of devolved funds to the counties despite the use of IFMIS at the counties.

 The study concluded that previous training on IFMIS had not involved senior county officers who were often too busy attending to other matters and thereby sending their junior staff for the training instead. The study recommended that the national treasury deal more decisively on matters devolution and specifically in the implementation of IFMIS to avoid letting partisan politics interfere with management of devolved funds.

2.4.4 Technological Infrastructure and IFMIS Implementation in Public Organizations

IFMIS is largely a new concept or system granted that it is yet to take sufficient roots especially in the national Governments departments. Needless to say, therefore, this system is bound to face considerable resistance from the staff expected to implement it. To overcome this resistance there needs to be effective change management. Barcan (2010) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. The objective of change management besides overcoming employees' resistance is to maximize the institution's capacity to achieve success through involved, educated and committed personnel.

O'Sullivan (2008) posits that change management includes stakeholder's management model, a communication strategy, a change-readiness assessment framework and certain design elements.

Indeje and Zheng (2010) contend that the introduction of a new information system such as IFMIS fundamentally changes the way operations are carried out and, therefore, requires a carefully managed process in order to avert probable staff resistance. This process results in the creation of a new organizational culture, that is, change in the way the organization operates. An IFMIS generally implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of processes, procedures, user profiles and requirements that the system will support (Chêne, 2009).

The changes associated with the introduction of IFMIS should be communicated to the staff in order for the same to embrace it. Kinyeki and Kipsang (2008) observe that the management of the changes that accompany an IFMIS implementation is viewed as one of the most crucial, yet, one of the most neglected aspects of IFMIS reforms. The success of any reforms boils down to the capacity of an institution to change, to manage the change and to

survive whilst changing. He further warns that resistance to change may emanate from various organizational stakeholders. These may include amongst others, persons with vested interests such as members of staff who benefited from previous methods, civil servants who perceive the change as an imminent threat to their jobs and also individuals who resist change simply because they dread the unknown.

According to Joshi and Moore (2010), an IFMIS project director must have among others capacity to entrench organizational change management especially to overcome any resistance. Change management strategies should be developed immediately an IFMIS project is conceived. Consideration for change implications for different stakeholders; be they politicians, senior officials, heads of departments, IT personnel, civil servants, amongst others who are expected to support the new system ought to be taken.

It is warned that failure to address this issue early in the project and possibly prior to the project commencement, then the IFMIS is bound to face resistance and derailments from executive officials, elected political leaders and personnel who are anticipated to use the system regularly. Rozner (2008) assert that the most convenient method of overcoming change resistance is by ensuring that there is clear communication, education and training and also via 'quick wins' that demonstrate the benefits of the change. Communication can be executed through a variety of media, seminars, workshops, training sessions, organization's website, conferences and/or newsletters.

Through the IFMIS Re-engineering process as outlined in the Kenya's IFMIS Re-Engineering Strategic Plan 2011 – 2013, the Kenyan government hopes to address the change management and communication challenges previously experienced in the pilot phase of IFMIS implementation, which greatly contributed to lackluster performance of the system. The strategic plan identifies the political, administrative and capacity constraints that require

rigorous interventions with the object of securing the buy-in and ownership attributes necessary within Government Ministries, Departments and Agencies (MDAs) to facilitate effective IFMIS implementation and improve the confidence of all relevant stakeholders (GOK, 2010).

The Kenya's IFMIS Re-Engineering Strategic Plan incorporates a change management strategy (CMS) and recommended approaches for effective re-launch of the IFMIS components. The CMS is drawn from lessons learnt from past IFMIS implementation experiences, as well as best global practices for similar financial systems re-engineering programmes and/or projects. The CMS's main object is to guarantee the requisite buy-in from all stakeholders and ensure that all stakeholders work together in concert to successfully implement and sustain the IFMIS Re-engineering process (GoK, 2010).

Every organization has a set of unstated rules by which the transformation process is managed. The IFMIS Re-engineering process will align the IFMIS Re-engineering strategies for successful transition with the reality of the work ethos and culture within the Ministry of Finance and the entire public service. it is argued that change arising from IFMIS implementation calls for an absolute paradigm shift in the mind-set of all IFMIS users as well as top-down and bottom-up approach to generate the support and commitment needed to successfully implement all aspects of the IFMIS re-engineering process. As outlined in the Strategic Plan, CMS was to focus on awareness creation, increasing broad-based commitment, managing expectations, change coordination staff development and aversion of resistance to the implementation of the system. Indeed, staff facilitation and motivation have been identified as some of the key success factors of the IFMIS Re-Engineering Strategy (Rozner, 2008).

A study by Kwena (2013) established that largely sabotage and resistance affect the use of IFMIS in the ministries in Kenya. Many IFMIS projects have failed because the basic system functionality was not clearly specified from the onset of the intervention. Chene (2009) posits that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf (OTS) or custom-built systems that fit the requirements of the specific country. An analysis of the different systems used by developing countries indicates that they make use of both off-the shelf systems as well as custom-built systems.

Rodin-Brown (2008) discussed the Best Practices for Designing and Implementing IFMIS and how to put them into place in Developing and Transitional countries. The study aimed at identifying the most appropriate strategies with respect to IFMIS project design, management, monitoring and evaluation around the world. The study concluded that IFMIS systems were complicated, expensive, difficult to manage and maintain. It was also common to discover only after procurement of new systems that those systems do not meet the specific conditions and needs of the project leading to costly delays and unplanned outlays. It further recommended that the technology chosen by a country should be flexible to adapt to evolving conditions so that the system can be rolled out to other parts of the government gradually.

A variety of experts should also be called to test, monitor and guide the implementation process Miheso (2013) examined the Adoption of IFMIS by the National Government in Kenya. The specific objectives were: to establish the extent of IFMIS adoption by national government; identify the challenges faced in adoption of IFMIS; and the determinants of its successful implementation. The study concluded that the implementation of IFMIS is affected by complex factors among them; top management support, human technical capacity and

training, change management, phased implementation and reliable and modern ICT infrastructure.

The study recommended that the requisite infrastructure be put in place in outlying areas out of Nairobi to ensure IFMIS is not implemented only in Nairobi but as a country wide project. ICPAK (2014) conducted a baseline survey on Devolution in Kenya with Respect to Public Financial Management Systems-One Year On. The study focused on county public financial management systems in support of the implementation of devolution in Kenya; performance of county human resources; roles and interrelations between county and national government; and evaluation the participation of the citizens and the private sector in county governance. The conclusion from the study was that most counties experienced connectivity challenges when the national IFMIS server is down leaving the rest of the country grounded. It further recommended that the national treasury should roll out county connectivity through a more reliable medium such as fiber optic cable as opposed to modems, or counties could consider clusters in which they make collective investments in laying connectivity infrastructure to compliment the efforts of the national government.

2.5 Conceptual Framework

Gallarza and Saura (2013) defined a conceptual framework as a virtual or written product, one that explains, either graphically or in narrative form, the main things to bestudied- the key factors, concepts, or variables and the presumed relationships among them. According to Matten and Moon (2008), a conceptual framework is a diagrammatical research tool intended to assist the researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. A conceptual framework is mainly used in research to present possible courses of action or to present a preferred way to illustrate an idea or

thought. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify research question and objectives (Van Kamp & De Hollander, 2003).

Independent Variables   **Dependent Variable**
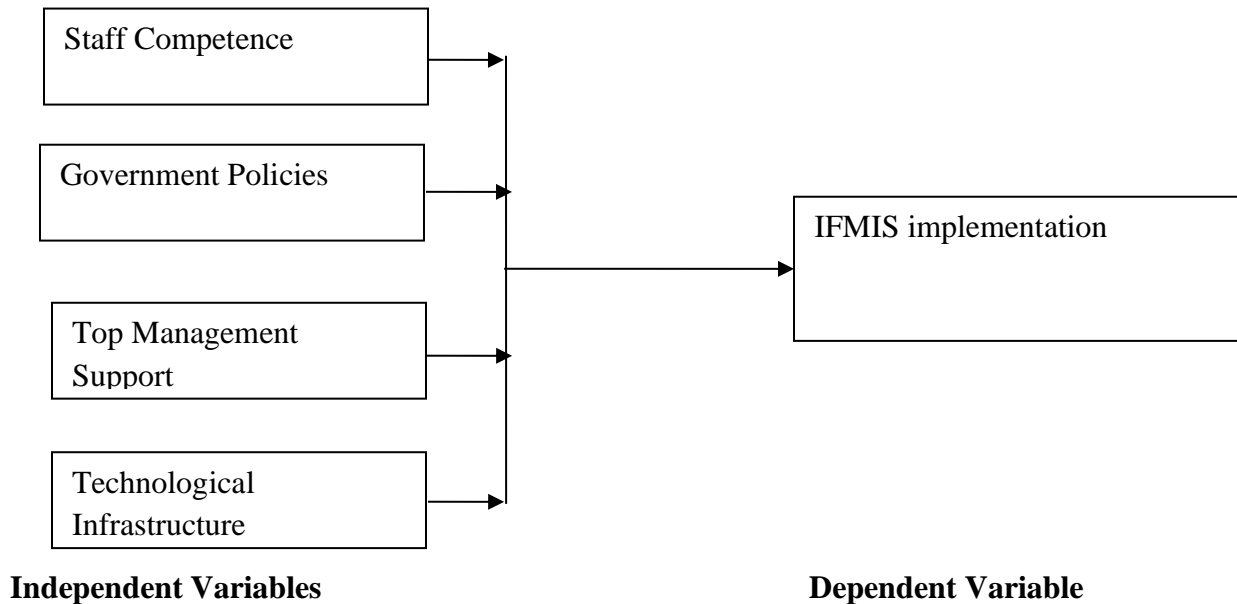
Figure 2.1: Conceptual Framework
Source: Author (2018)

2.6 Definition of Operational Terminologies

Employee skills- these are the requisite requirements for an employee in order to effective implements the IFMIS programs. The knowledge on finance and information communication technology is required for this program to be fully implemented.

Government policies: these are the government policies and other legal frameworks issues in regarding the IFMIS implementation and they are fundamental regarding operations of the financial policies in national government department as they have to be complied with especially in the implementation of IFMIS.

Top Management Support: this refers to the support that management is required to offer to the organization for better coordination of the activities of in the department in accordance with certain policies and in achievement of defined objectives of the IFMIS implementation.

Technological Infrastructure: This refers to the technological requirements for the implementation of IFMIS. IFMIS will require organization to acquire the current technology for effective IFMIS implementation.

IFMIS implementation: This is the adoption, introduction and making into use of integrated financial management information system, in the national government departments.

2.7 Operation Framework

The figure below shows the parameters of IFMIS implementation.
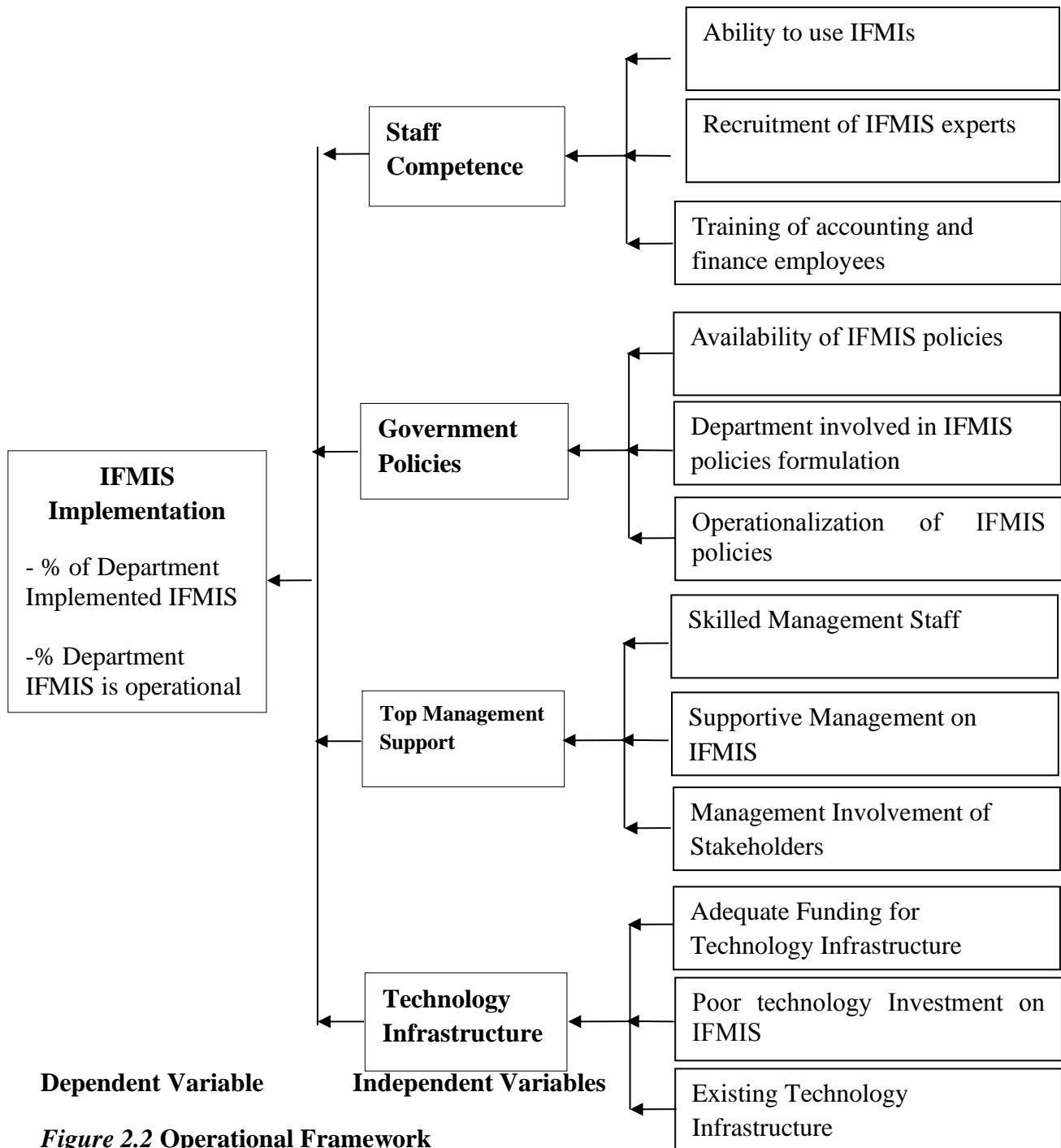
Figure 2.2 **Operational Framework**

Source: Author (2018)

2.8 Summary of Literature Review

In the outlay of government activities are numerous projects range for implementation. From the literature review, it evident that many African countries have struggled with completing IFMIS projects, and as a result, remains undeveloped or in developing process. Some of the factors associated with the state of poor implementation strategies are cited as lack of accountability, poor public financial management, capacity building and lack of appropriate skills to manage a project. Introducing a budget execution and expenditure management system, that will monitor and account for revenue and public expenditure is important elements towards effective accounting system, cash management controls and monitoring income and expenditures. To ensure effective performance and completion of projects, it has been noted that IFMIS has been introduced to many developing countries including Kenya in order to capture and monitor all project financial activities. This structure and platform is a model of project performance management. The literature has showed that Kenya has just completed her medium term expenditure outlay which indicates readiness towards full implementation and execution (World Bank, 2009).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces and describes the research design and target populationwhich was used to carry out the study. It also describes the data collection tool, procedures, how the tool was tested for validity and reliability and lastly the process of data analysis.

3.2 Research Design

The study adopted a descriptive research design which is concerned with describing the characteristics of a particular individual, or groups (Kothari, 2010). This method is suitable in describing determinants of IFMIS implementation in national government departments, since it allows flexible data collection procedures and the respondents will not be manipulated. Walter (2009) argues that descriptive research design is used when the problem is known and well designed. This is the research design that was used to establish the determinants of IFMIS implementation in the national government departments in Meru County.

3.3 Target   Population

The target population of the study was 34 national government departments in Meru County, which are the only national government departments in the region, according to the nominal roll register (2018) in the Office of County Commissioner, Meru County. These national government departments include; Basic Education department, cooperative governance, correctional services, planning monitoring and evaluation, public works and infrastructure, rural development and land, small business development, social development among others. The study respondentswere 68 management staff, comprising of two personnel from each of

the departments. These are the head of the departments and the finance officers. These respondents were selected since they are the people who play critical role in designing, implementing the policies and strategies of IFMIS in their departments.

Table 3.1.

Respondents of the Study

Cadres	Number of Employees
Head of Departments	34
Finance officers	34
Total	**68**

Source: March, 2018 Nominal roll Register, Office of County Commissioner, Meru.

3.4 Sample Size and Sampling Procedure

The study did not sample the respondents since the population size of 68 respondents was manageable and the respondents were within systems that they could be accessed easily. Instead, it adopted a census. According to Kothari (2014), census is a complete enumeration of all items in the population. It is presumed that in a census inquiry, all the respondents are covered and there is no element of chance which is left and the highest degree of accuracy is obtained especially when the population is small as it is evident in this study. Hence there was no need for sampling thus a population of 68 respondents was used.

3.5 Research Instruments

Data was collected through a questionnaire. The questionnaire had both open ended and close ended questions. The questions about IFMIS implementation and the variables under study were simple and logical. They contained simple but straight forward directions for the respondents to have ease in answering the questions. The method was the best in terms of

cost since it is inexpensive, free from bias of the interviewer, adequacy of time to give well thought out answers, convenience in reaching respondents, and the results are more dependable and reliable (Saunders & Lewis, 2015).

3.6 Data Collection Procedures

The drop and pick method of the questionnaires was done to the 68 respondents, to collect data after booking appointment withthem. This method is useful in administering the questionnaires to the targeted respondents of national government departments, since it ensures that respondents are reached without any external influences (Neville, 2007). The questionnaires were picked after 3 days and this ensured that respondents filled the questionnaires at their convenient time within given timelines.

3.7 Reliability of the Instrument

According to Sekran and Bougie (2010), reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. The test-retest method was conducted using 7 questionnaires to head of departments and finance officers of national government departments in Embu County, which is 10% of the respondents of this study. The7 questionnaires were coded and put into Statistical Package for Social Sciences (SPSS) version 22 for running the reliability test. The reliability of the questionnaires in this study was tested using the Cronbach's alpha coefficient and the results are presented in chapter four. A coefficient of 0.7 is recommended for a newly developed questionnaire. The closer the coefficient is to 1, the higher the internal consistency reliability (Kothari, 2010).

3.8 Validity of the Instrument

The validity of instrument is the extent to which it does measure what it is supposed to measure. According to Mugenda and Mugenda (1999), Validity is the accuracy and

meaningfulness of inferences, which are based on the research results. The questionnaire of this study was validated through a pilot with a sample of 7 respondents which is 10% of the total population. This was from the head of departments and finance officers of national government departments in Embu County. Head of departments and finance officers of national government departments in Embu County were the best to use in piloting since the most of national government services offered in Meru County are similar to those in Embu County. The pilot study done to the heads of departments and finance officers in Embu county, helps in avoiding irregular skewing of the results and ensures uniformity of meaning and clarity of instruments to all respondents in this study. The Information obtained from the pilot study, was used to adjust the questionnaire.

3.9 Data Analysis and Presentation

Data analysis is the whole process which starts immediately after data collection and ends when processed results are interpreted. This study's data was analysed using descriptive statistics, which involved generation of frequencies and percentages. Kothari (2013) defines descriptive statistics as the development of certain indices from the raw data, which are used to describe an individual, a group or a phenomenon.Hypotheses of the study were tested using Wald statistics. Multiple Logistic regression aided by SPSS (Version 20) was used to link the relationship between this study's independent variables (staff competence, government policies, top management support and technological infrastructure) and the dependent variable (IFMIS implementation). This helped in indicating the strength and direction of the relationship between the variables under study. Multiple Logistic Regression was used because the dependent variable was categorical i.e. the IFMIS implementation was either done or not. The general form of the Multiple Logistic Regression was expressed as:

$$\ln\frac{P(y)}{1-P(y)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Y is the utility function of the event (ifmis implementation)

$P(y)$ = probability of ifmis implementation being implemented.

β_0: The regression constant i.e. $Y = \beta_0$ when $X_1, X_2, X_3..... X_k = 0$

β_1: Coefficient of influence of staff competence (independent variable X_1)

β_2: Coefficient of influence of government policies (independent variable X_2)

β_3: Coefficient of influence of top management support (independent variable X_3)

β_4: Coefficient of influence of technological infrastructure (independent variable X_4)

For all statistical tests, the alpha (significance) level was set at 0.05. Analysed data was presented in the form of frequencies and percentages. Omnibus Test of model coefficients was used to show the significance of the predictive capacity of the overall model containing all independent variables of the study.Hosmer and Lemeshow Test was used to test the null hypothesis that the model has a statistically good fit against the alternate hypothesis that the model does not have a statistically good fit.

3.10 Ethical Issues

In this study, the authority to collect data was requested from the Meru County Commissioner, who is the head of all the national government departments in MeruCounty. Before completing the questionnaire, the respondents were explained the purpose of the research and were requested to participate in the study. Only those who gave consent were used in the actual data collection. There was a cover letter accompanying the questionnaires requesting cooperation from the respondents, and a copy of a letter from the university indicating the study is purely for academic purposes. The researcher obtained a permit from

NACOSTI to carry out the study in Meru County and plagiarism standards according to Kenya Methodist University were adhered to,besides observing all other ethical practices.

CHAPTER FOUR

RESULTS, DISCUSSIONS AND PRESENTATION

4.1 Introduction

This chapter presents the findings for each objective. The study set out to determine the influence of staff competency, government policy, management support and technological infrastructure, on the implementation of IFMIS. The study presents descriptive statistics in form of frequency tables, pie charts and bar charts. Using multiple logistic regression, the influence of the independent variables on the dependent variable was determined. Hypotheses of the study were tested using Wald statistics being part of the SPSS output for multiple logistic regression.

4.2 Reliability Analysis

The reliability of an instrument refers to its ability to produce consistent and stable measurements. Kothari (2010) explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is the Cronbach alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence of data. Reliability of the constructs as shown in table 4.1

Table 4.1.

Reliability Test of Constructs

Variables	Cronbach Alpha	Comments
Staff Competence	0.904	Accepted

Government Policies	0.903	Accepted
Top Management Support	0.898	Accepted
Technological Infrastructure	0.829	Accepted

The reliability was expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable was the test. All constructs depicted that the value of Cronbach' Alpha were above the suggested value of 0.5 thus the study was reliable (Kothari, 2010). On the basis of reliability test it was supposed that the scales used in this study was reliable to capture the constructs.

4.3 Response Rate

The researcher managed to collect 61questionnaires, which formed 88.4 percent of the population. A response rate of at least 75 percent is appropriate for generalizing the sample results to the population (Morton, Bandara, Robinson, & Carr, 2012; Fincham, 2008; Mundi, 2002; Saldivar, 2012). The question regarding response rate is not only about sufficient evidence to judge the representativeness of the sample to the population but rather, it is about enough data to reduce sampling bias brought about by "self-selected samples" (Mundi, 2002; Morton, et al., 2012).

4.3 Demographic Description

This subsection provides descriptive statistics on the gender, age, academic qualification and work experience of the respondents. These findings are in form of pie charts, bar graphs and paragraphed explanations.

4.3.1 Gender

The respondents had both genders represented, with three quarters of the total number of respondents being male (73.8 per cent) and quarter of the respondents being female (26.2%).

This statistic is in line with the gender third rule of the constitution of Kenya. Furthermore, the representation of both genders minimizes bias.

4.3.2 Age

The age distribution of the respondents was normal as indicated by figure 1 below,with majority of the respondents lying in ages between 36-40 years and the least number lying below 25 years.
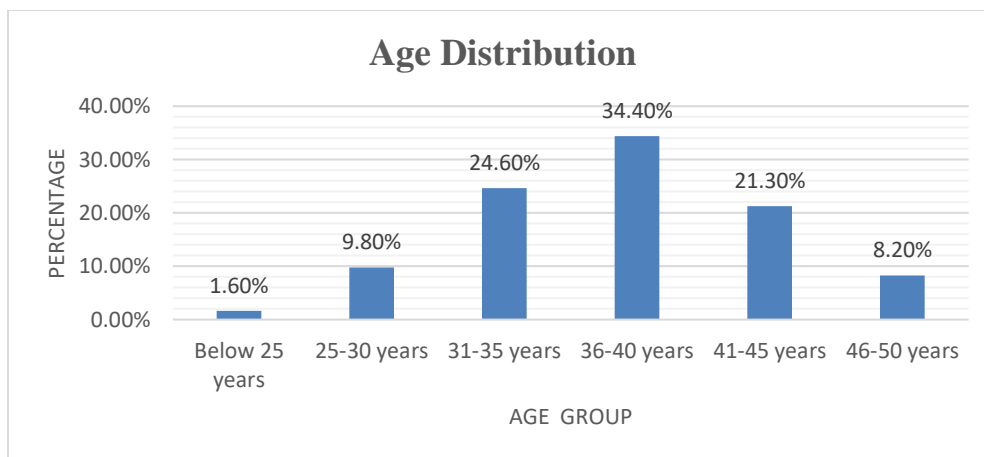
Figure 4.1. **Age Distribution**

4.3.3 Academic Qualification

Figure 4.2 shows that majority of the respondents qualified with bachelor's degree education constituting 66 per cent. Master's degree holders formed 24 per cent of the total population while 10 percent of the respondents were diploma holders. This depicts that the respondents had basic education to understand the questionnaire items.

Academic Achievement

■ Diploma ■ Degree ■ Masters and above
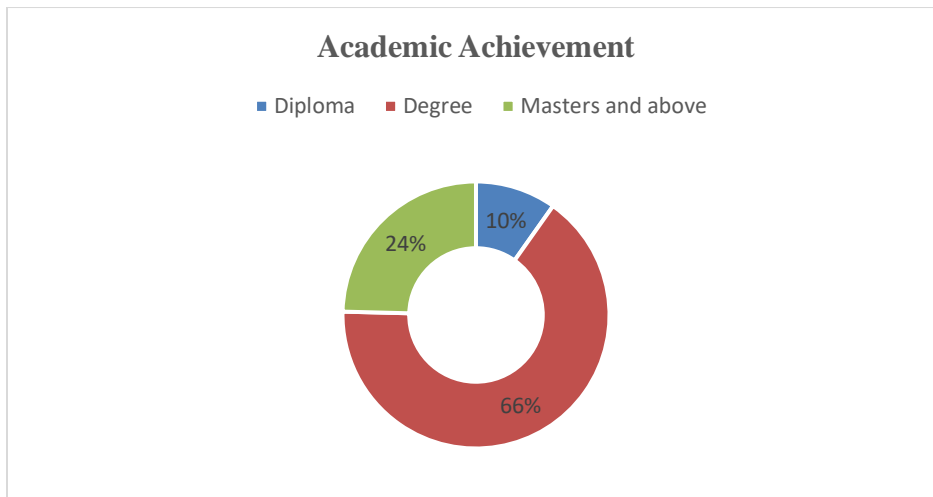
Figure 4.2 **Academic Qualification**

4.3.4 Work Experience

The following is graphical representation of work experience distribution by years.
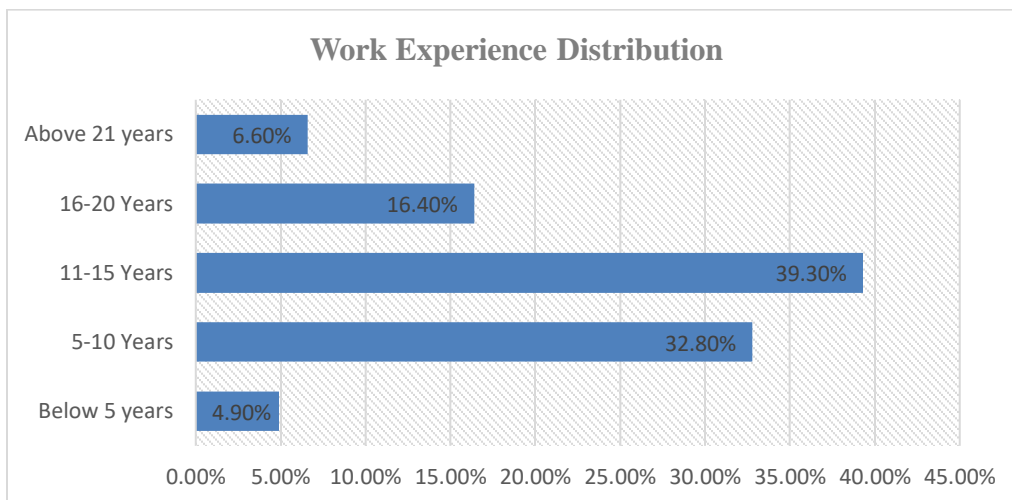
Figure 4.3 **Work Experience**

According to Figure 4.3, majority of the respondents had 11 to 15 years of work experience

(39.3 percent) followed by those who had worked for 5 to 10 years (32.8 percent). 16.4 per

cent of the respondents had 16 to 20 years of experience while 6.6 per cent had over 21 years

of experience. Only 4.9 per cent of the respondents had less than five years of work experience. These findings therefore show that majority of the respondents were well versed with what was happening in their places of work, hence, they were resourceful.

4.4 Reliability Analysis

This section shows the findings regarding the internal consistency of the questionnaire as measured during the piloting phase of data collection. Internal consistency is a proxy for the questionnaire's reliability that is required for a good data collection instrument. Reliability was measured using Cronbach's Alpha and the results for each variable have been tabulated. An alpha of 0.7 and above was required to conclude that the questionnaire section was reliable.

4.4.1 Staff Competency

Table 4.1.

Reliability Analysis for Staff Competency

	Cronbach's Alpha
Do you think staff competence influences implementation of IFMIS in your department	.815
Employees are able to use the IFMIS systems	.668
Employees have the skills to solve financial problems using IFMIS systems	.708
Accounting and finance employees have been trained on handling IFMIS systems	.758

The national government has recruited staff who are knowledgeable in matters of IFMIS systems	.725
How satisfied are you with current employees competency in line with IFMIS implementation in national government departments	.675
0.767	

Table 4.1 shows the reliability score for staff competency together with the anticipated change in Alpha score if a questionnaire item is deleted. The Alpha for Staff Competency was found to be 0.767 that was above the limit of 0.7 hence deeming the questionnaire reliable in regards to staff competency.

4.4.2 Government policies

Table 4.2

Reliability Analysis for Government Policies

	Cronbach's Alpha
Government has put in place policies that supports the implementation IFMIS in the department	.642
Departments are involved in developing policies that will enhance implementation IFMIS	.533
IFMIS implementation policies are operational in the department	.562
Are there policies by government that influences implementation of IFMIS in the national government department	.718
If yes how would you rate the influence of these government policies in implementation of IFMIS in the national government department	.717

	Cronbach's Alpha
How satisfied are you with the government policies on IFMIS implementation in the national government departments	.603

0.684

Government policy in Table 4.2 had a Cronbach's Alpha of 0.684, which was approximately 0.7 thus deeming this section reliable.

4.4.3 Management Support

Table 4.3.

Reliability Analysis for Management Support

	Cronbach's Alpha
There is highly skilled management staff to support the implementation IFMIS in the department	.700
There is supportive management staff to support the implementation IFMIS in the department	.691
There is management involvement of other stakeholders in the implementation IFMIS in the department	.589
How satisfied are you with the current management support in the implementation IFMIS in national government department	.486

0.688

Management Support in Table 4.3 had an alpha 0.688 that was approximately 0.7 hence deeming the questionnaires items for Management Support reliable.

4.4.4 Technological infrastructure.

Table 4.4

Reliability Analysis for Technological Environment

	Cronbach's Alpha
There is adequate infrastructure funding to enhance implementation of IFMIS in the department	.744
The existing technology infrastructure enhances implementation IFMIS in the department	.312
There is poor investment on IFMIS technology which affects implementation of IFMIS in the department	.339
How satisfied are you with the current technological infrastructure in the implementation IFMIS in national government department	.744
0.697	

Management Support in Table 4.4 had an alpha 0.697 that was approximately 0.7 hence deeming the questionnaires items for technological environment reliable.

4.4.5 Implementation of IFMIS

Table 4.5: Reliability Analysis for IFMIS Implementation

	Cronbach's Alpha
Estimates percentage of department IFMIS is implemented in 2011	.967
Estimates percentage of department IFMIS is implemented in 2012	.965
Estimates percentage of department IFMIS is implemented in 2013	.965
Estimates percentage of department IFMIS is implemented in 2014	.961
Estimates percentage of department IFMIS is implemented in 2015	.965
Estimates percentages of department IFMIS is operational in 2011	.965
Estimates percentages of department IFMIS is operational in 2012	.966
Estimates percentages of department IFMIS is operational in 2013	.962
Estimates percentages of department IFMIS is operational in 2014	.966
Estimates percentages of department IFMIS is operational in 2015	.965
0.968.744.	

Table 4.5 shows the reliability results for Implementation of IFMIS with a section score of 0.968 which is high above the cut-off point of 0.7. Therefore, the questions in this section were reliable.

Table 4.6

Summary of Reliability Analysis

Variable	Number of items	Cronbach's Alpha	Conclusion
Staff Competency	6	0.767	Reliable
Government Policies	6	0.684	Reliable
Management Support	4	0.688	Reliable
Technological Infrastructure	4	0.697	Reliable
Implementation of IFMIS	10	0.968	Reliable
Overall	**30**	**0.895**	**Reliable**

Source: Field Data (2018)

Table 4.6 further shows that the overall reliability was 0.895 hence deeming the questionnaire reliable in general. The section scores of each variable section have been summarized.

4.5 Description of Variables

This section describes the responses to the questions for each variable presented in form of frequencies and percentages. The descriptive statistics do not conclude on the study's' hypotheses but rather explain the responses for each variable.

4.5.1 Staff Competency

Table 4.7.

Whether staff competence influences implementation of IFMIS in your department

Response	Frequency	Percent
Yes	50	82.6
No	11	17.4

| Total | 61 | 100.0 |

According to Table 4.7, majority of the 0.767.744 respondents found staff competency to be influencing the implementation of IFMIS. A minority of 17.4% were of the view that staff competency did not influence implementation of IFMIS. These results agree to those of Lundu, & Shale (2015), who established that employee competency and skills positively influence the implementation of IFMIS.

Table 4.8

Employees are able to use the IFMIS systems

Response	Frequency	Percent
Strongly agree	2	2.9
Agree	8	13.0
Neutral	4	7.2
Disagree	33	53.6
Strongly disagree	14	23.2
Total	61	100.0

Table 4.8 shows that majority of the respondents were not of the opinion that employees were able to use IFMIS systems. 53.6 per cent of the respondents disagreed and 23.2 per cent of the respondents strongly disagreed. Only 15.9 per cent of the respondents were of the view that employees were able to use the IFMIS system. Therefore, it seems that employees need more exposure to the IFMIS system either through training or hands-on experience. These results concur to those of Combaz (2015) who established that among the factors affecting the success or failure of IFMIS, lack of capacities sufficient for IFMIS among the staff

involved is a major challenge. Hence, employees should be trained for them to be able to acquire the needed skills.

Table 4.9

Employees have the skills to solve financial problems using IFMIS systems

Response	Frequency	Percent
Strongly agree	1	1.4
Agree	6	10.1
Neutral	4	7.2
Disagree	15	24.6
Strongly disagree	34	56.5
Total	61	100.0

Table 4.9 also shows that majority of the respondents (81.1 per cent) viewed employees to be lacking skills to solve financial problems using IFMIS system. This corroborates the findings in Table 4.8 that found that 76.8 per cent of the respondents were not able to use the IFMIS system. These results agree to those of Kwena, (2013) who established that employees should undergo on job training to improve their skills.

Table 4.10.

Accounting and finance employees have training on handling IFMIS systems

Response	Frequency	Percent
Strongly agree	1	1.4
Agree	19	31.9
Neutral	14	23.2
Disagree	23	37.7
Strongly disagree	4	5.8
Total	61	100.0

Regarding whether accounting and finance employees have training on handling IFMIS systems in Table 4.10, respondents were equally divided. Furthermore, the distribution seems to be normal and thus there is average training on the use of IFMIS systems among the accounting and finance employees. These results agree to those of Cherono (2016) who recommended that all the accountants and other officers in Government offices should ensure that their staffs understand the different modules under IFMIS through training them since they did not have the skills.

Table 4.11

The national government has recruited staff who are knowledgeable in matters of IFMIS systems

Response	Frequency	Percent
Strongly agree	1	1.4
Agree	5	8.7
Neutral	4	5.8

Disagree	26	42.0
Strongly disagree	26	42.0
Total	61	100.0

According to Table 4.11, 84 per cent of the respondents viewed that the national government did not recruit staff who were knowledgeable in matters regarding to IFMIS systems. This translates to the few people who are able to use IFMIS in Table 4.8. These results concur to those of Kwena, (2013) who concluded that the government should employ employees to oversee the implementation of the IFMIS and undergo on the job training, in order to improve their skills and capabilities to use the system.

Table 4.12.

How satisfied are you with current employees' competency in line with IFMIS implementation in national government departments

Response	Frequency	Percent
Satisfied	5	8.7
Neutral	5	8.7
Dissatisfied	28	46.4
Highly dissatisfied	22	36.2
Total	61	100.0

Table 4.12 shows that majority of the respondents found current employees to be incompetent in regards to IFMIS implementation in national government departments.This agrees to findings in Table 4.9, which found that employees lacked skills for solving financial problems hence the lack of knowledge in financial matters as observed in Table 4.11. This is augmented by lack of training in finance and accounting employees as observed in Table 4.10. Kwena (2013) and Cherono (2016) recommend that officers should undergo training on financial matters in order to improve their skills and capability to use the system.

4.5.2 Government Policies

Table 4.13

Government has put in place policies that support the implementation of IFMIS in the department.

Response	Frequency	Percent
Strongly agree	4	7.2
Agree	48	78.3
Neutral	4	7.2
Disagree	4	7.2
Total	61	100.0

Majority of the respondents were of the view that Government had put in place policies in support of IFMIS implementation. Table 4.13 shows that 78.3 per cent and 7.2 percent of the respondents at least agreed to the latter assertions regarding government support of IFMIS implementation. These results are in agreement with those of Chebet (2013) who agreed that the government is supporting the IFMIS implementation.

Table 4.14.

Departments are involved in developing policies that will enhance implementation of IFMIS.

Response	Frequency	Percent
Strongly agree	1	1.4
Agree	13	21.7
Neutral	14	23.2
Disagree	25	40.6
Strongly disagree	8	13.0
Total	61	100.0

Despite Government's pro-activeness in setting up policies for implementation of IFMIS, there is concern that departments are not involved in the development of these policies. According to Table 4.14, a majority of 53.6 per cent of the respondents denied involvement of departments in policy development. Twenty three per cent of the respondents were not sure whether the departments are involved in policy development. Therefore, 76.2 per cent of the respondents did not have a positive view of the involvement of the departments in policy development. These results agree to those of Kimwele (2011) who argued that management influences the effectiveness of IFMIS.

Table 4.15.

IFMIS implementation policies are operational in the department

Response	Frequency	Percent
Strongly agree	2	3.0
Agree	8	13.0
Neutral	5	8.7

Disagree	42	68.1
Strongly disagree	4	7.2
Total	61	100.0

Table 4.15 shows that at least 68.1 percent of the respondents denied IFMIS policy implementation in departments. Eighty four per cent of the respondents were at least not sure whether there is operationalization of IFMIS policies in various departments. This could be a consequence of lack of involvement of these departments in the formulation of IFMIS policies as observed in Table 4.14. These results concur to those of Masaku (2018) who established that in order to enhance the performance of procurement, the employees should be well trained to get the skills.

Table 4.16.

Are there policies by the national government that influences implementation of IFMIS in the national government department

Response	Frequency	Percent
Yes	54	88.4
No	7	11.6
Total	69	100.0

Corroborating information in Table 4.13, there are policies by government that influence implementation of IFMIS in national government department. Table 4.16 shows that a majority of 88.4 per cent of the respondents agreed to the latter assertions. Therefore, there is enough policy infrastructure surrounding IFMIS implementation. According to Masaku,

(2018), there was need to implement government policy on IFMIS as it influenced performance of IFMIS in public sector.

Table 4.17.

If yes, how would you rate the influence of these government policies in implementation of IFMIS in the national government department

Response	Frequency	Percent
Highly influences	6	10.1
No Influences	17	27.5
Slightly influences	38	62.3
Total	61	100.0

Despite strong observations in favor of IFMIS implementation policies, information in Table 4.17 shows ineffectiveness of these policies. It was observed that 89.8 per cent of the respondents found that there were either slight or totally lack of influence caused by these policies in implementation of IFMIS. These results are in agreement with those of Wanjiru (2017) who established that policies are among the factors, which influenced the implementation of IFMIS.

Table 4.18

How satisfied are you with the government policies on IFMIS implementation in the national government departments

Response	Frequency	Percent

Highly satisfied	2	2.9
Satisfied	17	27.5
Neutral	6	10.1
Dissatisfied	31	50.7
Highly dissatisfied	5	8.7
Total	61	100.0

In the backdrop of poor implementation of IFMIS in departments and despite strong presence of government policies on the same, Table 4.18 shows that a majority of 59.4 per cent of the respondents were dissatisfied with policies on IFMIS implementation. Only a minority of 30.4 per cent were satisfied while 10.1 per cent were not sure where they stood on this matter. This observation is a consequence of delay in policy formulation in the government departments (Zarruk, 2008). According to Masaku (2018), there is need to implement government policy on IFMIS as it influenced performance of IFMIS in public sector.

4.5.3 Management Support

Table 4.19.

There is highly skilled management staff to support the implementation of IFMIS in the national government departments.

Response	Frequency	Percent
Agree	7	11.6
Neutral	6	10.1
Disagree	31	50.7
Strongly disagree	17	27.5
Total	61	100.0

Low level of competency in regards to skills biased to IFMIS implementation was observed in Table 4.19 with a majority of 78.2 per cent being of the opinion that there were no skilled management staff to support IFMIS implementation. These results differ with those of Nzilu (2017) who established that top management staff support IFMIS implementation.

Table 4.20

There is supportive management staff to support the implementation of IFMIS in the national government departments.

Response	Frequency	Percent
Strongly agree	3	4.3
Agree	42	69.6
Neutral	3	4.3
Disagree	11	18.8
Strongly disagree	2	2.9
Total	61	100.0

Albeit the low level of IFMIS skills of the management staff as observed in Table 4.19, they were nevertheless supportive with Table 4.20 showing 73.9 per cent agreement. Therefore,

management staff seems to be handicapped in terms of IFMIS skills and that could be the reason why there is inadequate implementation of IFMIS in the government departments. These results agree to those of Kimwele (2011)who established that management support is lacking and top management does not inspire the user because of lack of training.

Table 4.21

There is management involvement of other stakeholders in the implementation of IFMIS in the national government departments.

Response	Frequency	Percent
Strongly agree	1	1.4
Agree	11	17.4
Neutral	20	33.3
Disagree	26	42.0
Strongly disagree	4	5.8
Total	61	100.0

Respondents tore between whether management involved other stakeholders in the implementation of IFMIS in the department. A majority of 47.8 per cent in Table 4.21disagreed with the latter assertions while only 18.8 percent stood in agreement. However, 33.3 percent of the respondents were not sure whether management involved other stakeholders in the implementation of IFMIS in their departments. These results agree to those of Kimwele (2011) who established that management support is lacking and top management does not inspire the user.

Table 4.22

How satisfied are you with the current management support in the implementation of IFMIS in national government departments.

Response	Frequency	Percent
Highly satisfied	1	1.4
Satisfied	31	50.7
Neutral	9	14.5
Dissatisfied	19	30.4
Highly dissatisfied	2	2.9
Total	61	100.0

There was generally a high level of satisfaction in that the current management supported the implementation of IFMIS in the various departments. Table 4.22 shows a simple majority of 52.1 percent was satisfied with the current management's support while 33.3 per cent were dissatisfied. Only 14.5 per cent were neutral in this regard. These results are in agreement with those of Mwaura (2016) who established that employees have no problem in using the IFMIS system and they believe that the system improves the activities in achieving its targets hence them being satisfied.

4.5.4 Technological Environment

Table 4.23

There is adequate infrastructure funding to enhance implementation of IFMIS in the department

Response	Frequency	Percent
Agree	7	11.6
Neutral	3	4.3
Disagree	13	21.7
Strongly disagree	38	62.3
Total	61	100.0

Majority of the respondents strongly denied that there was adequate infrastructure funding to enhance implementation of IFMIS. The latter formed 62.3 per cent in Table 4.23while another 62.3 per cent of the respondents disagreed with the assertions. Only 15.9 per cent of the respondents found that there was adequate infrastructure funding to enhance IFMIS implementation. These results agree to those of Cherotich, & Bichanga (2016) who found that technological infrastructure for the roll out had not been availed.

Table 4.24

The existing technology infrastructure enhances implementation of IFMIS in the department

Response	Frequency	Percent
Agree	15	24.6

Response	Frequency	Percent
Neutral	15	24.6
Disagree	30	49.3
Strongly disagree	31	1.4
Total	61	100.0

The respondents tore between whether there existed technological infrastructure to enhance implementation of IFMIS in the department. Nevertheless, there was a slight bias towards disagreement with 50.7 per cent of them disagreeing with the assertions of Table 4.24 while only 24.6 percent of the respondents found the existing technological infrastructure to be adequate for enhancing IFMIS implementation. These results concur to those of Nzilu (2017) who found that there was a positive relationship between technology infrastructure and the implementation of IFMIS.

Table 4.25

There is poor investment on IFMIS technology which affects implementation of IFMIS in the department

Response	Frequency	Percent
Strongly agree	34	56.5
Agree	15	24.6
Neutral	4	5.8
Disagree	7	11.6
Strongly disagree	1	1.4
Total	61	100.0

Further to the findings in Table 4.24, majority of 81.1 per cent of the respondents as observed in Table 4.25 were of the opinion that there was inadequate investment of IFMIS technology and this affected the implementation of IFMIS in the government departments. The results agree to those of Kimwele(2011) who established that there was poor investment of IFMIS technology because the capacity and technical knowhow was found to be low due to lack of training and the hurried implementation of the system.

Table 4.26

How satisfied are you with the current technological infrastructure in the implementation of IFMIS in national government department.

Response	Frequency	Percent
Highly satisfied	1	1.4
Satisfied	11	18.8
Neutral	5	8.7
Dissatisfied	28	46.4
Highly dissatisfied	15	24.6
Total	61	100.0

There was a great dissatisfaction with the current technological infrastructure for the implementation of IFMIS in the national government departments with 71 per cent of the respondents being in disagreement as observed in Table 4.26 while a minority of 20.2 per cent being in agreement. These results agree to those of Kimwele (2011) who established that the IFMIS implementation faced a lot of resistance from the employees because they lacked the training and skills.

4.5.5 Implementation of IFMIS

Table 4.27

Estimates percentage of department IFMIS is implemented in 2015

Response	Frequency	Percent
0 - 10%	32	52.2
11%-20%	15	24.6
21%-30%	2	2.9
31%-40%	3	4.3
41%-50%	4	5.8
51%-60%	4	5.8
61%-70%	2	2.9
71%-80%	0	0.0
81%-90%	1	1.4
91%-100%	0	0
Total	61	100

From Table 4.27, 24.6 per cent of the respondents viewed IFMIS implementation to be between 11 to 20 per cent while a majority of the respondents viewed IFMIS implementation

to be at 52.2 per cent. Based on these observations, IFMIS implementation is at a lower rate and there is still a lot required for the implementation of IFMIS in government departments. One of the challenges noted by Chene (2009) is that IFMIS design is not fully customized to meet the needs and functional requirements of intended users. Kwena (2013) found that the implementation of IFMIS is low because of sabotage and resistance by the users. Kinyeki and Kipsang (2008) sighted lack of proper change management as the reason why there was low implementation of IFMIS.

Table 4.28

Estimates percentages of department IFMIS is operational in 2015

Response	Frequency	Percent
0 - 10%	45	73.9
11%-20%	3	4.3
21%-30%	4	5.8
31%-40%	2	2.9
41%-50%	4	5.8
51%-60%	2	2.9
61%-70%	0	0.0
71%-80%	2	2.9
81%-90%	0	0.0
91%-100%	1	1.4
Total	61	100

Following observations in Table 4.27, Table 4.28 also shows the estimated operationalization of IFMIS in the government departments. A majority of 73.9 percent of the respondents found that only at most 10 percent of IFMIS is operational. This corroborates the findings in

Table 4.27 hence affirming that IFMIS implementation is still at it initial phases in government departments.

4.6 Hypothesis Testing

This section presents findings of model testing in regard to strength of the multiple logistic regression model and Wald statistics for testing the hypotheses of the study. The discussed findings in this subsection are omnibus test of model coefficients; Nagelkerke R Square in Model Summary; Hosmer and Lemeshow test; Wald statistics and Odds ratio in Variables in the Equation table.

Table 4.29

Omnibus Tests of Model Coefficients

	Chi-square	Df	p-value
Step	34.760	4	0.000
Block	34.760	4	0.000
Model	34.760	4	0.000

Omnibus Test of model coefficients shows the significance of the predictive capacity of the overall model containing all independent variables of the study. From Table 4.29, the observed p – value of the model is 0.000, which is less than the significance level set for the study (0.05) indicating that the model has significant predictive capacity.

Table 4.30

Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
38.900	0.405	0.607

The Nagelkerke R Square is a statistic that is similar to the Pearson's R Square (coefficient of determination) and it ranges from zero to one. Being a pseudo coefficient of determination, it shows the amount of variations in the dependent variable (IFMIS Implementation) explained by the independent variables of the study (Staff Competency, Government Policies Technological Environment and Management Support). The observed Nagelkerke R Square in Table 4.30 is 0.607 (60.7%) which implies that about 60 per cent of IFMIS implementation directly contributed by Staff Competency, Government Policies Technological Environment and Management Support. Therefore, it is construed that the model has a strong predictive capacity deeming the variables appropriate for the measuring the implementation of IFMIS in the government departments.

Table 4.31

Hosmer and Lemeshow Test

Chi-square	Df	p-value
5.453	7	0.605

Table 4.31 shows results from Hosmer and Lemeshow Test that tests the null hypothesis that the model has a statistically good fit against the alternate hypothesis that the model does not have a statistically good fit. The observed p-value from the Hosmer and Lemeshow test was 0.605 that was more than 0.05 hence study did not reject the null hypothesis. Therefore, the model had a significant predictive capacity corroborating the findings in Table 4.30 of the Omnibus test of the model coefficients.

Table 4.32

Variables in the Equation

	B	S.E.	Wald	df	p-value	Odds Ratio	95% C.I. for Odds Ratio	
							Lower	Upper
Staff Competency	0.449	0.160	7.874	1	0.005	1.567	1.145	2.143
Government Policies	0.094	0.213	0.196	1	0.658	1.099	0.724	1.668
Technological Environment	0.660	0.273	5.853	1	0.016	1.935	1.133	3.302
Management Support	0.836	0.301	7.702	1	0.006	2.306	1.278	4.161
Constant	-23.626	7.552	9.787	1	0.002	0.000		

Table 4.32 displays the results for the variables in the binary logistic equation.

Binary Logistic Equation (i)

Ln (P/1-P)	= -23.626	+ 0.449X$_1$	+ 0.094 X$_2$	+ 0.660 X$_3$	+ 0.836X$_4$
Wald Statistics	9.787	7.874	0.196	5.853	7.702
P-value	0.002	0.005	0.658	0.016	0.006
Odds Ratio	0.000	1.567	1.009	1.935	2.306

Where;

P: Probability of Implementation of IFMIS

Ln (P/1-P): Logit of Implementation of IFMIS

X_1: Staff Competency

X_2: Government Policy

X_3: Technological Environment

X_4: Management Support

The study had four hypotheses and the results thereof are in Table 4.33 based on the p-value corresponding to the Wald statistic.

Table 4.33

Hypotheses Conclusions

Null Hypothesis	P-Value	Decision
H_0: There is no significant relationship between Staff Competency and IFMIS implementation	0.005	H_0 rejected
H_0: There is no significant relationship between Government Policy and IFMIS implementation	0.658	H_0 failed to be rejected
H_0: There is no significant relationship between Technological Environment and IFMIS implementation	0.016	H_0 rejected
H_0: There is no significant relationship between Management Support and IFMIS implementation	0.006	H_0 rejected

The conclusions of the hypotheses in Table 4.33 show that Staff Competency, Technological Environment and Management Support had significant relationships with IFMIS implementation while Government policy was the variable that did not have a significant relationship to IFMIS implementation.

From the beta coefficients in Table 4.32 and Binary Logistic Equation (i), a marginal increase in Staff Competency increases the logit of IFMIS implementation by 0.449 while holding other factors constant. By observing the odds ratio, a marginal increase in Staff Competency increases the odds (likelihood) of IFMIS Implementation by 1.567 while controlling for the individual differences of other variables in the study.

Marginal increase in Government Policy increases the logit of IFMIS implementation by 0.094 while holding other factors constant. By observing the odds ratio, a marginal increase in Government Policy increases the odds (likelihood) of IFMIS Implementation by 1.009 while controlling for the individual differences of other variables in the study.

Marginal increase in Technological Environment increases the logit of IFMIS implementation by 0.660 while holding other factors constant. By observing the odds ratio, a marginal increase in Technological Environment increases the odds (likelihood) of IFMIS Implementation by 1.935 while controlling for the individual differences of other variables in the study.

Marginal increase in Management Support increases the logit of IFMIS implementation by 0.836 while holding other factors constant. By observing the odds ratio, a marginal increase in Management Support increases the odds (likelihood) of IFMIS Implementation by 2.306 while controlling for the individual differences of other variables in the study.

4.7 Chapter Summary

From the findings in this study, the government has created adequate policies in regards to IFMIS implementation; however, the presence of policies is not sufficient to enable its implementation. The hypotheses tests has shown that staff competency, technological environment and most importantly, management support is vital for the effective implementation of the IFMIS system in government departments.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings on the research objectives of the study, which were: effect of Staff Competency on IFMIS Implementation in Government Institution; effect of Government Policy on IFMIS Implementation in Government Institution; effect of Management Support on IFMIS Implementation in Government Institution; and effect of Technological Environment on IFMIS Implementation in Government Institution. The objectives were formulated into research hypotheses and logistic regression was used to link the independent variables to the dependent variable. Wald statistic formed the basis of either rejecting or not rejecting the null hypotheses of the study.

5.2 Summary of Findings

This sub-section gives the summary of the findings of each objective discussed separately in the following subheadings. The summary includes discussions about the descriptive and the inferential statistics with respect to each variable.

5.2.1 Effect of Staff Competency on IFMIS Implementation in Government Institution

It was observed that majority of the respondents were unable to use IFMIS given that 84 percent in Table 4.8 disagreed with the assertion that they were adept with the latter system. Furthermore, 88.3 percent of the respondents in Table 4.9 affirmed that they did not have skills to solve financial issues using IFMIS. It was further observed that 89.8 percent of the respondents in Table 4.11 were recruited without any form of knowledge on IFMIS. Out of

the recruited staff, only half of the accounting and finance employees were trained on IFMIS according to Table 4.10.

In regards to IFMIS implementation, Table 4.27shows that approximately two thirds (76.8 percent) of the respondents were of the opinion that IFMIS has been implemented up to 20 percent. In Table 4.28, it was further observed that a consistent two thirds of the respondents (74 percent) were of the opinion that only 10 percent of the government departments implemented IFMIS. This shows that there was poor IFMIS implementation across the government departments.

The joint observation of poor IFMIS implementation and poor staff competency towards IFMIS usage indicates a positive correlation between these two variables from a descriptive standpoint. No wonder 82.6 percent of respondents in Table 4.7 were of the opinion that staff competency influenced IFMIS implementation. In this study, the inadequacy of staff competency led to poor IFMIS implementation across the government departments. The hypothesis testing also revealed the same findings from an inferential standpoint. Table 4.32 shows that the p-value of staff competency was 0.005 that was less than 5 percent significance level. Hence, staff competency had a significant influence on IFMIS implementation.

5.2.2 Effect of Government Policy on IFMIS Implementation in Government Institution

From the descriptive frequencies in Table 4.13, majority of the respondents (85.5 percent) observed that there were sufficient policies in place addressing IFMIS implementation. This corroborates the findings in Table 4.16 where 88.4 percent of the respondents also affirmed the presence of IFMIS policies in the government departments. However, majority (76.2 percent) of the respondents were not of the view that various government departments were involved in creation of these policies (Table 4.14). This lack of involvement might have

triggered the apathy that the various departments had towards IFMIS implementation policies. This is because 84 percent of the respondents in Table 4.15 affirmed that these policies were not operational in the government departments. 4.17 can corroborate this by showing that62 percent of the respondents of the opinion that there was slight influence of these policies on IFMIS implementation while 27 percent denied any sort of influence.

Given that there were sufficient policies on IFMIS implementation and at the same time poor operationalization of these policies, it depicts mixed reaction towards IFMIS policies. Table 4.18 shows slightly more than half of the respondents (59 percent) were dissatisfied with government policies on IFMIS implantation. Tables 4.27 and 4.28 strongly show that there was poor implementation of IFMIS despite the shy operationalization of IFMIS policies. Therefore, there was no obvious correlation between government policies and IFMIS implementation from a descriptive standpoint. The p-value of government policy in Table 4.32 was also observed to be 0.658 that was more than 5% significance level. Therefore, it was concluded that government policy did not significantly affect the implementation of IFMIS in government departments.

5.2.3 Effect of Management Support on IFMIS Implementation in Government Institution

Management support was described in terms of skillfulness of the management staff in support of IFMIS and in terms of involvement of stakeholders in implementation of IFMIS. Observations in Table 4.19 show that majority of the respondents (88.3 percent) were not of the opinion that there were highly skilled management staff to support IFMIS implementation. There was inadequate involvement of stakeholders in implementation of IFMIS according to Table 4.21 where 81.1 percent of the respondents shared this opinion. In

general, when asked whether they were satisfied with the current management support on IFMIS implementation, approximately half of the respondents disagreed with this assertion.

On average, there seems to be little management support on IFMIS implementation that correlates positively with the poor state of IFMIS implementation. The hypothesis on management support was rejected with a p-value of 0.016 in Table 4.32, which was less than 5 percent significance level. This means that management support significantly influences the implementation of IFMIS in government departments. However, it had lower significance compared to staff competency going by the p-values.

5.2.4 Effect of Technological Environment on IFMIS Implementation in Government Institution

The study found that there was inadequate infrastructure funding according to Table 4.23 where 88.3 percent of the respondents were of this view. Corroborating the latter findings, 75.3 percent of the respondents in Table 4.24 disagreed with the assertions that the existing technological infrastructure enhanced IFMIS implementation. The adverse effects of the existing technological infrastructure risk being worse subject to the poor investment on IFMIS technological infrastructure as observed in Table 4.25 where 81 percent of respondents shared this view. From Table 4.26, a majority of 79.7 percent expressed dissatisfaction with the current technological infrastructure in the implementation of IFMIS.

The poor state of technological infrastructure for IFMIS implementation correlates positively to the poor IFMIS implementation from a descriptive statistics standpoint. This relationship is confirmed by the conclusion of the hypothesis testing where the p-value of Technological environment was 0.006 that was less than 5 percent significance level. Therefore, technological environment significantly affect the implementation of IFMIS across government departments.

5.3 Conclusion

From the study, it has been established that there was poor staff competency, inadequate management support, insufficient technological infrastructure and presence of government policies on IFMIS implementation. In addition to the separate descriptive observations of each variable, the study has established that staff competency, management support and technological infrastructure had positive significant influence on the implementation of IFMIS in government departments. Of the three variables, management support had the largest influence on IFMIS implementation, followed by management support. Government policy did not significantly affect IFMIS implementation. This demonstrates that the presence of policies without appropriate implementation interventions is not effective in promoting IFMIS implementation.

5.4 Recommendations

Based on the study findings, staff competency had a significant influence on IFMIS implementation. The researcher therefore recommends the government to work on staff competency, right from recruiting the right personnel, and embracing on on-job training. The government can also develop some interventions to improve on the motivation of the workers, by having well laid down policies on promotions and or recognition. The researcher also recommends the government to promote specialization, as it promotes competency through experience. A well-defined training program will also assist in capacity building and help improve confidence amongst users who are reassured that there will be some constants in the process of change. Given the nature of institutions and organizations, capacity building is a frequent and continuous process. Therefore it needs to be ongoing and permanent (Rodin-Brown 2008). Staff with the necessary knowledge and skills enables the effective implementation, operation, and maintenance of IFMIS. Inadequate capacity is regarded as one of the major causes for the delay in the implementation process; hence emphasis should

be put on capacity building through training in order to avoid such discrepancies (Selfano & Serah, 2014).

The study also proved that management support was insufficient, and therefore the researcher recommends the government to develop managerial capacity, enough to implement IFMIS. The management staff should also be trained on strategies to manage change, so that they can be in a position to handle the other staff members.

The other area of concern in relation to the findings of the study is the technological infrastructure. The government should invest in technology and mostly in modern technology to improve on efficiency. Good technology saves on cost, in relation to time and money.

5.5 Areas of Further Studies

Nargelkerke r square = .607 = 60.7 percent

Pseudo pearson's r square.

Means that 60.7 percent of the variations in IFMIS implementation is due to the variations in the four variable of the study. Therefore, roughly 40 percent of the variations in IFMIS implementation is unexplained by the study. Further studies should be done using different variables to explain the other variations in IFMIS implementation.

REFERENCES

Audenhove, L.V. (2008). *Information and communication technology policy to Africa: A critical analysis of rhetoric and practice*. Retrieved from https://www.researchgate.net/publication/263550873_Information_and_Communication_Technology_Policy_in_Africa_A_critical_analysis_of_rhetoric_and_practice

Baloyi, M. R. (2011). *Address by the minister for public service and administration, Mr Masenyani Richard Baloyi, at the integrated financial management system (IFMS). Human resource (HR) go live celebration Pretoria zoological gardens*. Retrieved from http://www.info.gov.za/

Barajas (2007). *Performance leadership: The next practices to motivate your people align stakeholders and lead your industry*. USA: McGraw Hill

Barcan,P.(2010). *IFMIS in Africa: Some key issues*. Retrieved from https://slideplayer.com/slide/8683498/

Canary, H. E., & Tarin, C. A. (2017). *Structuration theory*. Retrieved from https://doi.org/10.1002/9781118955567.wbieoc197

Chado, H. (2015). *The effect of integrated financial management information system on the financial management of public sector in Kenya*. Nairobi, Kenya: University of Nairobi.

Chado, H. M. (2015). The effect of integrated financial management information system on the financial management of public sector in Kenya. (*Unpublished MSC Project, University of Nairobi*). Retrieved from http://hdl.handle.net/11295/94721

Chado, W. (2016). *The effect of integrated financial management information system on the financial management of public sector in Kenya*. Nairobi, Kenya: University of Nairobi.

Chebet, R. (2013). The critical success factors in the implementation of the re-engineered integrated financial management information system in government ministries, Kenya. (*Unpublished MBA Thesis, University of Nairobi*). Retrieved from http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/58711

Chêne, M. (2009). *The implementation of integrated financial information management systems (IFMS)*. Retrieved from http://www.u4.no/helpdesk/helpdesk/query.cfm?id=19

Cherono, S. C. (2016). *The effects of integrated financial management information systems, on accounting operations of government agencies in Kenya* (Doctoral dissertation, Masters Dissertation, University of Nairobi, Kenya). Retrieved from http://hdl.handle.net/11295/100367

Cherotich, A., &Bichanga, O. W. (2016). Factors affecting effective implementation of integrated financial management information systems by the county governments of kenya. *Journal of Economics, Commerce and Management*, *4*(4). 1049- 1068. doi: 10.9790/487X-2005070624

Combaz, E. (2015). *Implementing integrated financial management information systems*. Retrieved from https://www.gov.uk › Research for Development Outputs

Diamond, J. &Khemani, P. (1999). *IFMIS in developing countries*. Retrieved from https://www.u4.no/publications/the-implementation-of-integrated-financial-management-systems-ifmis.pdf

Diamond, J. &Khemani, P. (2006).Introducing financial management information systems in developing countries.*OECD Journal on Budgeting*, 5(3), 97-132. Retrieved from https://gsdrc.org/document-library/introducing-financial-management-information-systems-in-developing-countries/

Dorotinsky, W. & Cho, C. (2010).*Implementing financial management system project: The worldbank experience preliminary results*. Nairobi, Kenya. The World Bank.

Economic Commission for Africa (2015). *Public sector management in Africa. Addis Ababa, Ethiopia: Economic Commission for Africa*. Retrieved from

http://unpan1.un.org/intradoc/groups/public/documents/uneca/unpan014953.pdf

Farelo, M., & Morris, C. (2006). *The status of E-Government in South Africa.* Retrieved from https://pdfs.semanticscholar.org/884a/402e999238310f982f6235bd0d8c07aca687.pdf

Folger, L. (2014).*Structuration theory*: *The duality of structure*. Retrieved from

https://core.ac.uk/download/pdf/58826082.pdf

Gakure, R., &Ngumi, P. (2013). Do bank innovations influence profitability of commercial banks in Kenya, *Prime Journal of Social Science* (PJSS), 2(3), 237- 248. Retrieved from https://pdfs.semanticscholar.org/d0a1/85856220ea7e6ee75f943bd07243627aa328.pdf

Giddens, A. (1984). *The third way: the renewal of social democracy*. Cambridge, UK: Polity press.

Godara, V. (2010). *Strategic pervasive computing applications: emerging trends. Hershy, New York: Information Science Reference*. Retrieved from https://books.google.co.ke/

GoK (2011). *Economic survey*. Nairobi, Kenya: Government printer.

GoK (2011). *Integrated financial management information system (IFMIS) IFMIS Re-Engineering, From Modular, to Full Cycle End–To-End Processes, Strategic Plan 2011-2013*. Retrived from https://sokodirectory.com/2015/06/report-ifmis-implementation-in-kenyas-government/

GoK& KPMG (1997). *A taskforce report on strengthening government finance and accounting functions*. Nairobi, Kenya: Government Printer.

Holbeche, L. (2016). *Influencing organizational effectiveness: A critical take on the HR.* USA:

Taylor & Francis.

Indeje, W. &Zheng, Q. (2010). *Organizational culture and information systems Implementation: A structuration theory*. Retrieved from http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1348&context=sprouts_all

Kahari, C. K., Gathongo, G., &Wanyoike, D. (2015). Assessment of factors affecting the implementation of integrated financial management information system in the county governments: A case of Nyandarua County, Kenya. *International journal of economics, commerce and management, United Kingdom*, *111*(11). Retrieved from https://www.semanticscholar.org/paper/ASSESSMENT-OF-FACTORS-AFFECTING-THE-IMPLEMENTATION-Kahari-Gathogo/a07503ea4725bc04b2feb4841941f6ec93e2f147

Karanja, J. K. &Ng'ang'a, E. N. (2014). Factors influencing implementation of intergrated financial management information system in Kenya government ministries.*Research Journal of Finance and Accounting*.5(7). Retrieved from   /Downloads/12298-14704-1-PB.pdf

Keya Treasury (2015). *IFMIS implementation in Kenya's government.* Retrieved from http://sokodirectory.com/2015/06/report-ifmis-implementation-in-kenyas government*/*

Kibera, F. N. (2008). *Introduction to business. A Kenyan perspective*. Kenya Literature Nairobi: Bureau Publishers.

Kimwele, J. (2011). Factors affecting effective implementation of integrated financial management information systems (IFMIS) in government ministries in Kenya. *Unpublished Thesis, University of Nairobi: Kenya*. Retrieved from http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/13330

Kinyua, J. K. (2011). *Kenya economic survey.* Nairobi, Kenya; ministry of finance

Kishor, V., Sajeev, A. S., &Callender, G. (2013).Critical Factors that Influence procurement Implementation Success in the Public Sector. *Journal of Public procurement*.6 (1&3), 79. doi: 10.1108/JOPP-06-01-02-2006-B004

Kothari, B. L. (2010). *Research methodology: (Tools and technique)*. Jaipur, India: ABD Publishers.

Kroszner, S. (2005). *Checks and balances: The economics of corporate governance reform.* Retrieved from https://www.csoonline.com/

Kwena, F. I., (2013). *Factors influencing the use of integrated financial management and information systems in public sector*. Retrieved from http://ir-library.ku.ac.ke/handle/123456789/6283

LaMorte, W. (2018). *Diffusion of innovation theory.* Boston, USA: Boston University School of Public Health.

Lundu, B. L., & Shale, N. (2015). Effect of integrated financial management information system (IFMIS) implementation on supply chain management performance in the

devolved government systems in Kenya: A case of Nairobi city county government. *International Academic Journal of Procurement and Supply Chain Management*, *1*(5),1-26. Retrieved from http://www.iajournals.org/articles/iajhrba_v2_i3_242_254.pdf

Masaku, E. N. (2018). Role of integrated financial management information system (IFMIS) on procurement performance in government ministries in Kenya: A Case of ministry of health. *Strategic Journal of Business & Change Management*, *5*(2), 1546-1566. Retrieved from http://www.strategicjournals.com/index.php/journal/article/view/750

McInnes, M. & Carleton, W. (1982). *Theory, models and implementation in financial Management*. Massachusetts, USA: Massachusetts Institute of Technology.

Medlin, B. D. (2001). *The factors that may influence a faculty member's decision to adoptelectronic technologies in instruction*. Retrieved from http://hdl.handle.net/10919/29125

Mugenda, A. &Mugenda, O. (1999). *Research methods: Quantitative and qualitative approaches*. Nairobi: ACTS Press.

Mwaura, D. N. (2005). *Factors affecting the performance of savings and credit cooperative societies in Kenya. A case study of Afya Cooperative Society Ltd*. Retrieved from http://strategicjournals.com/index.php/journal/article/view/699/708

Neville, C. (2007). *Introduction to research and research methods*. USA: Bradford University Schoolof Management.

Mwaura, K. (2016). Factors influencing implementation of integrated financial management information system in devolved government in Kenya. Retrieved from erepository.uonbi.ac.ke/handle/11295/6745

Mwaura, K. Z. (2016). Factors influencing implementation of integrated financial management information system in devolved government in Kenya. *The International Journal of Business and Management*, *4*(9.) 38-55. doi:10.21511/pmf.06(1).2017.04

Ncebere, R. (2000). *Excelling in business. The entrepreneur's handbook*. Nairobi, Kenya: R.N. Publishers.

Njoroge, G. &Wanyoike, D. (2015). Influence of Integrated Financial Management Information System on Procurement Performance In The County Government of Nakuru, Kenya. *International Journal of Economics, Commerce and Management* 6(10). Retrieved from http://ijecm.co.uk/wp-content/uploads/2016/10/41039.pdf

Nzilu, V. (2017). Determinants of successful implementation of integrated financial management systems by county governments in Kenya. (Unpublished MBA Thesis, University of Nairobi). Retrieved from http://hdl.handle.net/11295/102806

O'Sullivan, G. (2008). Professional learning communities: Developing a school-level readiness instrument. *Canadian Journal of Educational Administration and Policy*, 74, 1–17. Retrieved from https://www.researchgate.net/publication/50844327_Professional_Learning_Communities_Developing_a_School-Level_Readiness_Instrument

Ouma, J. (2011). *The role of Kenya's public service in a changing global environment; Opportunities and challenges*. Nairobi, Kenya: Kenya association of public administrators and Managers.

Pal, L., & Clark, I. D. (2014). *Best practices in public management: History, theory and application. Best practices in public management*. Retrieved from http://www.atlas101.ca/pm/wp-content/uploads/2015/12/Best-Practices-in-PublicManagement-Project-Outline.pdf

Peterson, S., Kinyeki, C., Mutai, J. Kipsang, & Ndungu, C. (2006). Computerizing accounting systems in developing bureaucracies: lessons from Kenya, *Public Budgeting and Finance*, 16(4), Retrieved from https://doi.org/10.1111/1540-5850.01085

Roberts, A. (2010). *The logic of discipline: Global capitalism and the architecture of government*. New York: Oxford University Press

Rogers, E. M. (2003). *Diffusion of innovations.* (5th Ed.). New York: Free Press

Rozner, S. (2008). *Best practices in fiscal reform and economic governance: Introducing integrated financial management information systems.* Retrieved from https://www.semanticscholar.org/paper/Best-Practices-in-Fiscal-Reform-and-Economic/51969b2c59fa12ac10e1ecfe776e26a25a222b3c

Rudolf, S. (2015). *Systems theory*. Retrieved from https://pdfs.semanticscholar.org/

Sahin, I. (2006). Detailed review of rogers' diffusion of innovations theory and educational technology-related studies based on rogers' theory. *The Turkish Online Journal of Educational Technology* –TOJET , 5 (2),14-23. Retrieved from https://www.researchgate.net/publication/284675572_Detailed_review_of_Rogers'_diffusion_of_innovations_theory_and_educational_technology-related_studies_based_on_Rogers'_theory

Saunders, M. & Lewis, P. (2015). *Research methods for business students* (7[th]ed.).USA: University of Surrey.

Sekaran, U. & Bougie, R. (2010). *Research methods for business: forms of reliability and validity (5[th]ed.)*. Chichester: John Willey & Sons

Wang, R. Y. (2005). *Redefining the scope and focus of information quality work: Advances in management information systems*. Armonk, New York: M.E. Sharpe Inc

Wanjiru., L. (2017). Factors influencing the implementation of integrated financial management system projects among state corporations in Kenya. *International Journal of Innovations, Business and Management, 11*(4.). 40- 56. Retrieved from https://www.iajournals.org/articles/iajef_v3_i2_265_291.pdf

Wong, T. (2010). *Evaluation resources for nonprofit organizations: Usefulness and applicability*. Retrieved from https://onlinelibrary.wiley.com/doi/pdf/10.1002/nml.10409

World Bank (2014). *Decision time: spend more or spend smart. Kenyan public expenditure review*. USA: World Bank Group

APPENDIX I

INTRODUCTION LETTER

PATRICK WAMBUGUMAINA

P.O BOX 233

MERU

Dear Sir / Madam.

RE: DATA COLLECTION INSTRUMENT

I am a student of Kenya Methodist University undertaking a Master Degree in Business Administration in finance option. I am currently carrying out a research study on the determinants of IFMIS implementation in the national government departments in Meru County.

I am therefore kindly requesting you to provide me with information concerning the research work. Respondent will be treated with utmost privacy and confidentiality and data collected will be used for nothing else but education purposes only.

Thank you.

Yours Faithfully,

……………………….

Patrick Maina

QUESTIONNAIRE FOR REPONDENTS ON IFMIS IMPLEMENTATION

By means of a tick (√) kindly indicate an option that best describes your response:

<u>**SECTION A: GENERAL INFORMATION**</u>

1. Your gender

    a) Male   ( )

    b) Female   ( )

2. Your age:-

    a. Below 25 years   ( )

    b. 25-30 years   ( )

    c. 31-35 years   ( )

    d. 36-40 years   ( )

    e. 41-45 years   ( )

    f. 46-50 years   ( )

    g. Over 51   ( )

3. Your level of education:-

    a. Secondary education (O level)   ( )

    b. Diploma   ( )

    c. Degree   ( )

    d. Masters &Above   ( )

4. Years you have worked with the national government department?

       a) Below 5 years   ( )

       b) 5-10 years   ( )

       c) 11-15 years   ( )

d) 16-20 years   ( )

       e) Above 21 years (   )

SECTION B: IFMIS IMPLEMENTATION

Kindly fill in the table below in order to indicate how the national government departments have implemented IFMIS and the percentages of the department IFMIS is operational for the 5 years.

construct	2011	2012	2013	2014	2015
Estimates percentages of department IFMIS is implemented					
Estimates percentages of department IFMIS is operational					

SECTION C: STAFF COMPETENCE

5.Do you think staff competence influences implementation of IFMIS in your department?

   a) Yes   ( )

   b) No   ( )

   If Yes, Explain

   ……………………………………………………………………………………………………

   ……………………………………………………………………………………………………

   ……………………………………………………………………………………………………

6. In each phrase given below tick the number that best describes your responses in relation to employee competence the IFMIS implementation

Where 1=Strongly Agree; 2=Agree; 3=Neutral; 4=Disagree 5=Strongly Disagree

Employee Competence	1	2	3	4	5
Employees are able to use the IFMIS systems					
Employees have the skills to solve financial problems using IFMIS systems					
Accounting and finance employees have been trained on handling IFMIS systems					
The national government has recruited staff who are knowledgeable in matters of IFMIS systems					

7. How satisfied are you with the current employee's competence in line with the IFMIS implementation in the national government departments?

    a. Highly satisfied   ( )

    b. Satisfied   ( )

    c. Neutral   ( )

    d. Dissatisfied   ( )

    e. Highly dissatisfied   ( )

SECTION D: GOVERNMENT POLICIES

8. In each phrase given below tick the number that best describes your responses in relation to government policies and IFMIS implementation

Where 1=Strongly Agree; 2=Agree; 3=Neutral; 4=Disagree 5=Strongly Disagree

Government Policies	1	2	3	4	5
Government has put in place policies that supports the implementation IFMIS in the department					
Departments are involved in developing policies that will enhance implementation IFMIS					
IFMIS implementation policies are operational in the department					

9. Are there policies by government that influences implementation of IFMIS in the national government department?

a) Yes   ( )

b) No   ( )

10. If yes, how would you rate the influence of these government policies in implementation of IFMIS in the national government department?

a) Highly influences   ( )

b) No Influence   ( )

c) Slightly influences   ( )

11. How satisfied are you with the government policies on IFMIS implementation in the national government departments?

    a. Highly satisfied   ( )

    b. Satisfied   ( )

    c. Neutral   ( )

    d. Dissatisfied   ( )

    e. Highly dissatisfied   ( )

SECTION E: MANAGEMENT SUPPORT

12. In each phrase given below tick the number that best describes your responses in relation to management support and IFMIS implementation

Where 1=Strongly Agree; 2=Agree; 3=Neutral; 4=Disagree 5=Strongly Disagree

Government Policies	1	2	3	4	5
There is highly skilled management staff to supports the implementation IFMIS in the department					
There is supportive management staff to supports the implementation IFMIS in the department					
There is management involvement of other stakeholders in the implementation IFMIS in the department					

9. How satisfied are you with the current management support in the implementation IFMIS in national government department

    a. Highly satisfied   ( )

    b. Satisfied   ( )

    c. Neutral   ( )

    d. Dissatisfied   ( )

    e. Highly dissatisfied   ( )

10. Give two suggestions on what should be done to improve on management support of national government departments in order to facilitate implementation of IFMIS.

    i. ………………………………………………………………………..

    ii. …………………………………………………………...........................

SECTION F: TECHNOLOGICAL INFRASTRUCTURE

11. In each phrase given below tick the number that best describes your responses in relation to technological infrastructure and IFMIS implementation

Where 1=Strongly Agree; 2=Agree; 3=Neutral; 4=Disagree 5=Strongly Disagree

Technological Infrastructure	1	2	3	4	5
There is adequate infrastructure funding to enhance implementation IFMIS in the department					
The existing technology infrastructure enhances implementation IFMIS in the department					
There is poor investment on IFMIS technology which affects implementation of IFMIS in the department					

12. How satisfied are you with the current technological infrastructure in the implementation IFMIS in national government department

        a. Highly satisfied.   ( )

        b. Satisfied.   ( )

        c. Neutral.   ( )

        d. Dissatisfied.   ( )

        e. Highly dissatisfied.   ( )

APPENDIX V:

MAP OF THE AREA OF STUDY (MERU COUNTY)
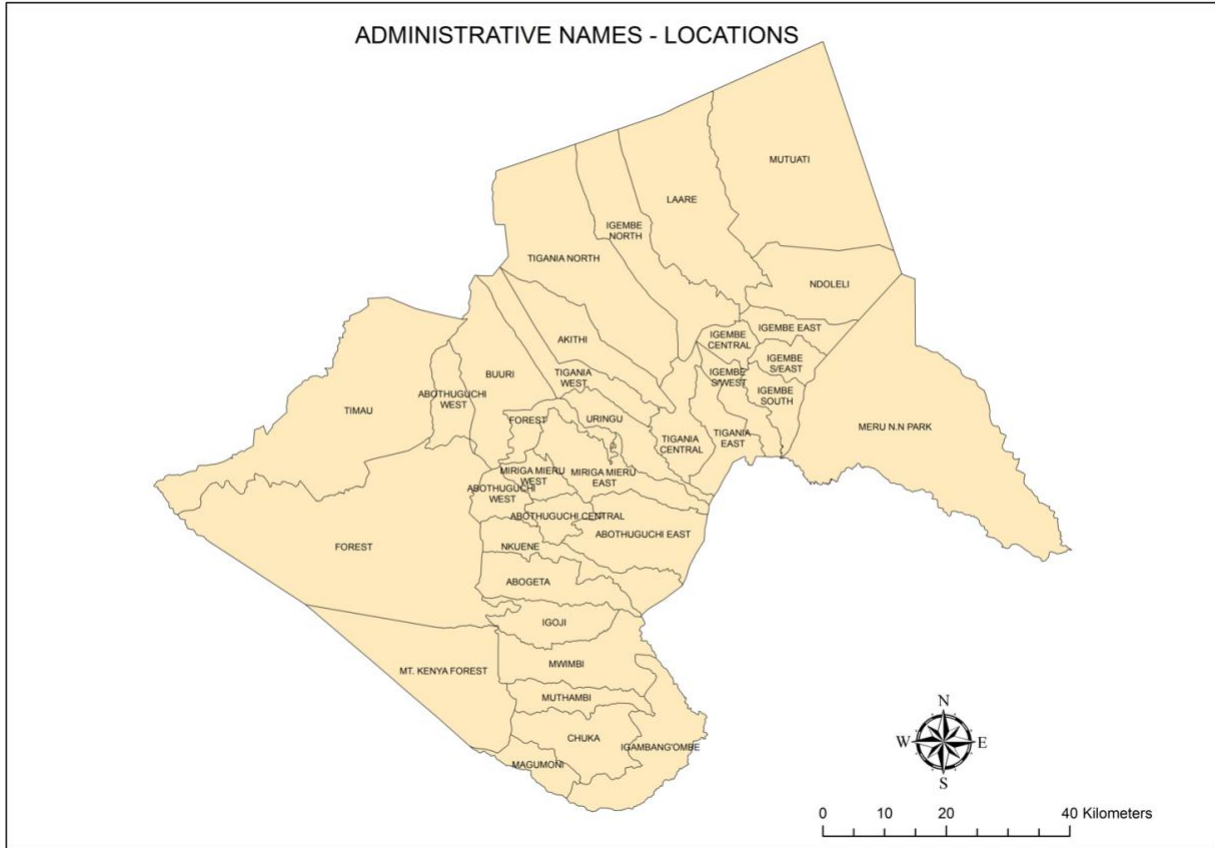
Source: Meru County Government Website