DETERMINANTS AFFECTING THE IMPLEMENTATION OF THE INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM BY THE NAIROBI CITY COUNTY, KENYA

BENARD KIPKIRUI NGETICH

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT AND LEADERSHIP IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF MANAGEMENT AND LEADERSHIP OF THE MANAGEMENT UNIVERSITY OF AFRICA

OCTOBER, 2018

DECLARATION

This project is my original work and has not been presented for a degree in any other University

Signature ………………………… **Date** **……………………………**
Benard K Ngetich
MML/9/00107/1/2017

This project has been submitted for examination with my approval as University Supervisor

Signature ………………………… **Date** **……………………… ……**
Dr. James Choge, PhD
The Management University of Africa

DEDICATION

I dedicate this project to my wife Winny Chepngeno Ngetich, to my daughter Patricia Cherotich Ngetich and to my son Shawn Kibet Ngetich.

ACKNOWLEDGMENT

All the thanks go to the Almighty God for giving me wisdom to conduct this study. I also appreciate my supervisor Dr. James Choge for his guidance in conducting the research. I also wish to extend my gratitude to my Masters of Management and Leadership colleagues and The Management University of Africa fraternity for their support throughout the research process

ABSTRACT

The Kenya Government has implemented the Integrated Financial Management Information System (IFMIS) since the year 2005 as its sole accounting system. The expected benefits envisaged from its effective use include; proper governance, improve fiscal transparency, reduced political discretion, deterrent to corruption and fraud and accountability of public funds. However, for now over twelve years of implementation, this system has still not been able to fully provide the expected benefits especially in the county governments. The main purpose of this study was to assess the determinants affecting the implementation of the IFMIS in the county governments of Kenya. The study specifically focused in establishing the extent to which change management, technological infrastructure, human capital development and top management commitment affects implementation of the IFMIS in the county governments of Kenya with a special focus in Nairobi City County. This study used descriptive research design. The study was conducted in Nairobi City County where it targeted 48 Nairobi county government employees who use IFMIS. The target respondents comprised of county executive accountants, county executive procurement officers, county executive accounting officers, county assembly accountants, county assembly procurement officers and county assembly clerks. Complete enumeration was used where all the target respondents were observed. Data was collected using a self administred questionnaire was analyzed using SPSS and the findings presented in tables and graphs. The findings established that change management process, technological infrastructure and top management commitment had affected the IFMIS implementation process moderately whereas human capital development had affected the IFMIS implementation process greatly. The findings further established that general rating of level of change management carried out, technological infrastructure capacity, human capital development carried out in the county and top management commitment towards the implementation process was generally low. The findings further established that the general rating the level of implementation of IFMIS System in the county was generally low. Based on the findings of this study, the following recommendations were made. A comprehensive change management process should always be undertaken whenever a new innovation is adopted in any organization. Government and private institutions should ensure availability of the required up to date technological infrastructure to ensure smooth implementation of technological based innovations. Organizations should invest heavily in capacity building so as to ensure their employees are well equipped with the required skills in order to perform effectively. The top management should offer support and act as role models as this will motivate their employees to perform even better.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

DOI   Diffusion of Innovation

FMIS   Financial Management Information System

GDP   Gross Domestic Product

GOK   Government of Kenya

ICT   Information Communication Technology

IFMIS   Integrated Financial Management Information System

IMF   International Monetary Fund

I.T   Information Technology

MDA   Ministry Departments and Agencies

MIS   Management Information System

MML   Masters of Management and Leadership

MTEF   Medium Term Expenditure Framework

PFM   Public Financial Management

PFMR   Public Finance Reform Management

OPERATIONAL DEFINITION OF TERMS

Change management: It is a collective term for all approaches to prepare and support individuals, teams and organizations in making organizational changes

Human capital development: It is the development of the collective skills, knowledge or other intangible assets of individuals that can be used to create economic value for the individuals, their employers or their community

IFMIS A financial management information that tracks financial events and summarizes financial information

System implementation: It is a systematic approach to effectively integrate software based service or component into workflow of an organizational structure or an individual end user

Technological Infrastructure: It is the enterprise's entire collection of hardware, software networks, data centers, facilities and related equipment used to develop, test, operate, monitor, manage and support information technology services

Top management commitment: This is the direct participation by the highest level management in all specific and critically important aspects of an organization

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the study background, the problem statement, the study objectives, the research questions, the study significance and the study scope.

1.1 Background of the Study

According to Ramesh (2013), a Financial Management Information System (FMIS) can be broadly defined as a set of automation solutions that enable governments to plan, execute and monitor the budget. Whenever the same central database is shared by FMIS with other PMFs (Public Financial Management) information systems in recording and reporting daily financial operations, giving reliable consolidated outcomes for support in decision making, monitoring of performance and web publishing then they can collectively be referred to as an 'integrated' Financial Management Information System (FMIS or IFMIS). Governments get a lot of help from the modern FMIS platform in complying with domestic and international regulations on financial and reporting standards. It also assists the governments in decentralizing its operations via centralized web based solutions which provide access a large population of authorized budget users at all levels

According to Alshehri, (2010) governments around the world have been engaged in the process of implementing a wide range of ICT applications. According to Heeks and Davies (2000), this reinvention has taken place especially in the advanced countries. Western countries are convinced that the information society will result in economic

and social benefits (Audenhove, 2000). Integrated Financial Management Information Systems is a tool that provides governments with financial support control, planning and managing core financial data sets and interpreting the findings for management utilization are supported. Integrated Financial Management Information System can be defined further as a system in which key functions in finance such as budgeting and accounting are integrated. It is a system that focused towards improving on data management efficiency and security and assisting in giving comprehensive reports on financial information. Integrated Financial Management Information System are measured based on core and non-core financial functions while public financial management is characterized by a broad field with multiples of systems. A conventional specification of the Integrated Financial Management Information System core function is accounting and reporting functions, while non-core functions include assisting in budget activities, control of commitment level, management of cash and disbursement functions. The specifications of the core functions don't capture all the needed components for effective financial control leading to an escalated risk.

1.1.1 A Global Perspective on the IFMIS Implementation

Most countries such as Australia and New Zealand have introduced significant changes in managing public sectors by breaking from the traditional bureaucratic model of public administration (Sigei, 2013) which entails breaking of larger units to relatively smaller ones which are easier to manage. Governments have begun constraining public spending, putting into sale public assets and outsourcing several services that were formerly provided fully by the public sector to private institutions or organizations. Governments have also began developing public asset performance measurement, business-type accounting and output and outcome based budgeting. In recent past, most

developing countries have embraced public sector reform practices. This has been motivated by the governments by embarking on new terrain which focused towards learning from experiences from other governments.

The growth in global Integrated Financial Management Information System spending over the recent years has been significant. Global Integrated Financial Management Information System expenditure ascended at a faster rate than worldwide GDP. Gwillim, Dovey and Wieder (2005) suggested that global Integrated Financial Management Information System spending exceeds $1 trillion per annum. According to Agarwal and Lucas (2005), ICT is one of the most important business driving forces of the 21st century. The cause for the significant growth can be attributed to the realization of Integrated Financial Management Information System through the ICT's value in attaining a competitive edge. The significant increase in ICT's scale, complexity, strategic focus, connectivity and processing power in recent years has further heightened awareness of ICT's potential to positively affect an organization's competitive position (Vehovar & Lesjak, 2007). ICT offers a platform for potential significant organizational improvement and attainment of a competitive advantage. Conversely, Integrated Financial Management Information System investment doesn't necessarily result into monetary benefits. Integrated Financial Management Information System investment in organizations has grown substantially in the past three decades. By 1998, in the developed countries, Integrated Financial Management Information System accounted for at least 50% of organizations annual capital investments. The motivating factor behind this large-scale Integrated Financial Management Information System investment is the promise of increased competitive

advantage, as Integrated Financial Management Information System is considered as a strategic approach that can have a positive impact to the organization.

United Nations has classified countries as either advanced or less developed based on their Computer Industry Development Potential. Advanced include, for example, the United States, Canada, West European countries and Japan; According to the World bank (2011), FMIS Database Latin America and Caribbean region of the World Bank stands out with the largest number of completed (25) and active (4) Integrated Financial Management Information System projects. The Africa region has 13 completed and 12 active Integrated Financial Management Information System projects. In most of the countries the use of Information Communication Technology for reinvention of the government is on the increase not only in the investment sector but also in terms of visibility with high profile initiatives which were launched in 1990s. According to Gichoya (2005) this reinvention has taken place especially in the advanced countries.

According to Kimwele (2011) western countries believe that the information society will bring in economic and social benefits. Heeks and Stanforth (2007) observed that there is a big difference between Integrated Financial Management Information System implementation and use between developed and developing countries. However, similarities are expected, which may include insufficient funds, user needs and bureaucracy. The difference comes in on how these problems addressed, different countries have different approaches on how to solve these problems. It can be argued that, the Western countries have found it easier in implementing Integrated Financial Management Information System projects than developing countries. This is because of their adequate resources and their advanced technology.

Majority of the undeveloped countries are characterized by insufficient computer applications in public sector, lack of skilled manpower and limited infrastructure. The uncoordinated efforts at different levels of technology usage may lead to duplication if every department implements its own Integrated Financial Management Information System projects without due regard to compatibility within the government. Most governments in Africa are exploring ways of bringing improvement and modernization of public financial management process. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (Integrated Financial Management Information System) as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting (Chêne, 2010).

1.1.2 Integrated Financial Management Information System Implementation in Kenya

The Government of Kenya implemented the Integrated Financial Management Information System since 2005 as its sole accounting system. IFMIS was adopted due to its several benefits likely to be experienced from its use. The Public Financial Reform Management (PFMR) Strategy Paper 2001-2006 recommended automation as well as integration of key government functions such as human resources payroll, accounting, procurement and budgeting citing transparency, better financial management and reporting as some of the benefits (Government of Kenya, 2001). The Strategic Plan for Government of Kenya (2011- 2015) outlined the development of the IFMIS System. The IFMIS system has been undergoing re-engineering with the purpose of upgrading it for managing and reporting financial information for the Kenyan Government. The Integrated Financial Management Information System implementation requirement in

Kenya came from the Ministry of Finance and Economic Planning ICT Master Plan 2001- 2005. This plan indicated gaps and weaknesses within the SIBET system that was used by then. The master plan proposed development of different modules comprising of management of revenue, accounting, management of assets among others and interface establishments with the Kenya Revenue Authority, the National Bank Payment information System and the Ministry of Labor for payroll and management of human resource modules. The IDRC team, in collaboration with the Kenyan Government and researchers and various organizations, focused towards identifying structures (social structures, technological structures and institutional structures) needed for successful Information Communication Technology policy implementation to assist in developing efficient implementation strategies and detailed plans raising Integrated Financial Management Information System awareness by organizing of trainings and workshops for senior Government officials in developing indicators for assessing the progress and aftermath of the policy implementation while at the same time documenting learnt lessons for future reference.

1.1.3 County Governments of Kenya

The counties of Kenya are geographical units envisioned by the 2010 Constitution of Kenya as the units of devolved government. (RoK 2010). The powers of county governments are provided in Articles 191 and 192, and in the fourth schedule of the Constitution of Kenya and the County Governments Act of 2012. (RoK, The County Government Act 2012). The counties governments of Kenya are headed by an elected governor and deputy governor who are members of executive committee. The counties are also single member constituencies for the election of members of parliament to

the Senate of Kenya and special women members of parliament to the National Assembly of Kenya. As of 2013 general elections, there are 47 counties.

The County Governments of Kenya are financed by the national government through the exchequer so as to perform various functions as stipulated in the Constitution like promoting social and economic development and providing services throughout the country. The roll out of the Integrated Financial Management Information System to the 47 counties began in 2013 (The National Treasury, 2014). Njoroge (2014) notes that with the devolution of huge amounts of financial resources to the 47 counties, the adoption of Integrated Financial Management Information System is now more critical than any other time in our history. The system provision of solution in management of financial matters will help curb corruption within the county governments hence ensuring resource distribution up to the grass root level.

1.1.4 Nairobi City County

Nairobi City County is the most important county so far. This is because is hosts the capital city of the country, it hosts almost all the headquarters of the central government and the biggest industrial town in the country and hence heart of economy of the country. Nairobi City County is the main commercial and cultural center for East Africa. It is the largest city between Cairo, Egypt, in north Africa, and Johannesburg, South Africa. Located on the edge of the rich agricultural region of the Central Highlands, Nairobi City County is the capital city of Kenya, the most developed country in East Africa. As one of Africa ' s leading cities, it hosts important international conferences and is the home for many embassies, international organizations, and businesses. The city has a cosmopolitan flair that combines African, Asian, European, and Middle Eastern cultures. Since independence, the city has grown at a tremendous

rate. The 2009 census estimated the population of Nairobi City county at four million. According to (County Allocation of Revenue Bill, 2018) Nairobi City County gets the largest allocation of funds from the central government of the 47 counties. The county also collects the largest revenue of the 47 counties.

The Governor of Nairobi City County was always going to have a difficult task to control the county that is viewed as the heartbeat of the country. As the Governor with the biggest work on his plate, the Nairobi City County Governor was to come up with strategies of tapping the massive potential and delivering the dreams of the residents and the country at large. As the capital of the country, Nairobi City County is cosmopolitan and harbors people from all walks of life. The residents have different needs, different dreams, different political following; and it is upon the county government to ensure that all the people have their different needs met.

Nairobi County Government was coming from a backdrop of the Nairobi City Council which for many years had been dogged with inefficiencies in provision of services, corruption, bloated operational costs due to ghost workers etc. Nairobi City County was founded in 2013 on the same boundaries as Nairobi Province, after Kenya's 8 provinces were subdivided into 47 counties.

1.2 Statement of the Problem

There is broad conformity that a fully operational Integrated Financial Management Information System can upgrade governance by providing real-time financial information which financial managers and system users can use to administer programs effectively, manage available resources and budget formulation (Rodin-Brown, 2008). Despite the obligatory requirement for all the county governments to fully adopt Integrated Financial Management Information System, the Controller of Budget's

quarterly reports on the counties' budget implementation review have consistently indicated the failure of the county governments to fully implement Integrated Financial Management Information System in their operations. The report indicated that most operations within the counties have largely remained manual contrary to the law. The failure to adopt Integrated Financial Management Information System will prevent transparency in management of finances and financial reporting as required by law.

Kimwele (2011), in a study on Factors affecting effective implementation of Integrated Financial Management Information System in the Government ministries of Kenya, analyzed how staff resistance, top management commitment, system complexity and staff capacity affected the implementation process. However, in his study he did not establish the extent to which change management and technological infrastructure affected the implementation process. Sigei (2013) in a study on the Critical Success Factors in the Implementation of the reengineered Integrated Financial Management Information System in the Government Ministries focused on: User involvement in the implementation process, clear goal setting, top level management support, appropriate infrastructure and support.

While the reviewed researchers have studied implementation of IFMIS in Kenyan context, this study seeks to examine the determinants of its implementation in the county governments of Kenya and impact on governance and performance. It is against this background that this study sought to assess the extent to which various determinants of the implementation of Integrated Financial Information Management Systems in the Nairobi City County.

1.3 Objective of the Study

1.3.1 General Objective

The main objective of this research was to assess the determinants affecting the implementation of the IFMIS by the Nairobi City County.

1.3.2 Specific Objectives

  i.   To establish how the change management affects implementation of the IFMIS in the Nairobi City County.

 ii.   To examine the effect of technological infrastructure on implementation of the IFMIS in the Nairobi City County.

iii.   To evaluate the relationship between human capital development and implementation of the IFMIS in the Nairobi City County.

 iv.   To determine the influence of top management commitment on implementation of the IFMIS in the Nairobi City County.

1.4 Research questions

  i.   How do the change management affect implementation of the IFMIS in the Nairobi City County?

 ii.   What is the effect of technological infrastructure on the implementation of the IFMIS in the Nairobi City County?

iii.   What is the relationship between human capital development and implementation of the IFMIS in the Nairobi City County?

 iv.   What is the influence of top management commitment on implementation of the IFMIS in the Nairobi City County?

1.5 Significance of the study

This study will provide first-hand evaluation of the performance of the Nairobi city county in terms of its service delivery to the public. The findings could also help the Nairobi City County to identify service delivery gaps for future improvement. The Government of Kenya could use this report as an independent, objective assessment of the gains that it has accrued since implementation of the Integrated Financial Management Information Systems. The findings of the study will inform policy development in the future in terms of adoption of technology to improve public service. This study would also be of great help to the Citizens of Kenya. Through the implementation of recommendations that would follow from this study, Kenyan citizens would enjoy improved service delivery through better management of public finance. This study will also make a significant contribution to the body of knowledge on the relationship between electronic transaction processing and financial probity in the public sector. Therefore, future researchers who wish to extend studies on the nexus between fiscal probity and Integrated Financial Management Information System may use this study as a point of reference.

1.6 Scope of the study

This research project was to assess the determinants affecting the implementation of Intergrated Financial Management Information Systems in Nairobi City County. The target population was of 48 Nairobi county government employees who use IFMIS. The target respondents comprised of county executive accountants, county executive procurement officers, county executive accounting officers, county assembly accountants, county assembly procurement officers and county assembly clerks. The study was carried out from January 2018 to September 2018.

1.7 Chapter Summary

The discussion in the chapter begins with a brief introduction of Integrated Financial Management Information System (IFMIS) including its adaptation and implementation in the developed and developing counties. The chapter goes on to present how Kenya Government adopted the IFMIS and the devolving of the central government to county governments. The chapter introduces the challenges facing the strategic implementation of the IFMIS in the county governments of Kenya and states the problem statement, objectives and significance of the study to various stake holders.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents related literature on the objectives for the study. The sub-themes that were reviewed here include: change management, technological infrastructure, human capital development and top management commitment in relation to implementation of Integrated Financial Management Information System. Summary and research gaps and conceptual framework were also discussed in this chapter.

2.1 Theoretical Review of Literature

The theories guiding the current study include Rogers Theory of Diffusion and Technology Acceptance Model.

2.1.1 Theory of Diffusion of Innovation

Rodgers developed Diffusion of Innovation theory in 1962. This theory is argued to be one of the oldest theories in social science. This theory strives to explain in communication how a product or an idea gains momentum over time and diffuses through a social system or a specific population. The final outcome of this diffusion is that, a new idea, product or behavior is adopted by a specific population or social system. Adoption in this context means that an individual does things differently than the way she/he used to do previously (this may include acquiring a new behavior, purchasing or using of a new product and many more). The main point in adoption is that the idea, product or behavior must be perceived by an individual as original. It is through this that diffusion is possible (Sahin, 2006).

Implementation of a new concept or product doesn't happen concurrently in a social system but rather through a process where some individuals adopt to the new system or innovation faster than the rest. 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 (Rodgers, 2003). According to Medlin (2001), Rodger's theory of innovation's diffusion is the most appropriate in understanding the adoption of a given technology. In relation to the current study, Diffusion of Innovation theory enables the assessment of the process of implementation of Integrated Financial Management Information System in the County Governments. As explained by Rodgers, to adopt a system or a product entails full use of it as the most appropriate option available while to reject an innovation is a decision not to embrace it.

There are four major components in the diffusion of innovation which should be well comprehended, according to Rodgers theory. 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. Relating to the theory, IFMIS has been regarded as an invention or innovation reason being it is in line with the components of the theory. Communication is regarded or defined in this context as the act or process whereby the individuals involved come up with information and share it with their colleagues or counterparts with a view of attaining a common comprehension or understanding. For communication to be effective, it is mandatory for it to occur via well-structured and designed channels among the sources.

To facilitate the IFMIS diffusion into the County Governments systems, it is imperative that the IFMIS system is subjected to very effective and efficient channels of communication. A time dimension should also be included when diffusion process of an innovation is being undertaken. It has also been established that the social system has an influence on the innovativeness of an individual hence can be used in categorization of implementers or adopters

Recommendations are therefore made that, to facilitate or speed up diffusion of an innovation or new technology, it is very critical to deeply comprehend the process of innovation decision. The innovation decision process is characterized by fie phases namely; first one being knowledge, followed by persuasion, then decision, followed by implementation and finally confirmation phase (Rodgers, 2003)

2.1.2 Technology Acceptance Model (TAM)

This study is guided by the Technology Acceptance Model (TAM). This model is an information systems theory that models how users come to accept and use a technology. According to TAM, one's actual use of a technology system is influenced directly or indirectly by the user's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of use of the system. Perceived usefulness and perceived ease of use have positive associations with technology acceptance (Bagozzi & Warshaw, 1989). They defined perceived usefulness as the degree to which a person believes that using the system will enhance his or her performance and ease of use as the degree to which a person believes that using the system will be free of mental effort. TAM has evolved overtime to TAM2 and extended the original model to explain perceived usefulness and usage intentions including social influence, cognitive

instrumental processes and experience (Venkates, 2000). It demonstrates how the information system is determined by the behavioral pattern intention and the behavioral pattern determined by the person's attitude towards using the system. According to Bagozzi & Warshaw (1989), the attitude of an individual is not only the factor that determines his use of a system but is also based on the impact on the performance. The study of this model will help us understand the factors that determine the acceptance and use of IFMIS by the employees in the County Governments of Kenya.

2.1.3 Kotter's eight step change model

This eight-step process defines the manner of managing change in an organization Kotter (1996). The management start by persuading the employees of urgency of taking new direction in the organization. Kotter advised that the administration should help others have determination to move and win now (Kotter, 2011). The second step is the creation of guiding coalition of capable and credible people to lead the change. In third step and fourth step Kotter (1996) observed that developing a vision and communicating the same throughout the organization is important for direction. According to Kotter (1996), in the fifth step once the employees internalize and own the new vision, then logically they are empowered to act upon it by removing any impediments and make sure people have the resources and systems to bring about change.

Kotter explained the sixth step on short-term wins, that companies that experience substantial short-term wins are most probably able to complete a transformation process. The consolidation of gains made to produce more change into the culture. This anchoring the new practices into the corporate culture as the pressure of change ebbs.

2.1.3 Upper Echelon Theory

Hambrick and Mason (1984) developed the upper echelon theory that suggests that top management support as one of the determinants of strategic choices. Usually organizations are ran through strategic decisions and if these are affected by the top level management support, then the support can be taken to influence the running of the organizations. Hence as Hambrick and Mason (1984) further argue, top management support is key for the underlying traits and cognitive processes of the top management team.

Upper echelon theory, Hambrick and Mason (1984), is deeply rooted in the behavioral theory of the firm. Its main underlying assumption is that human limitations influence the perception, evaluation and decisions about organizational problems and hence influence firm's choices and behavior. Notably also, Jackson (1992) states that top management support has a positive impact on the resolution of complex problems, however, difficulties of communication and understanding may exist in these teams and for this reason, some of the advantages of both diversity and homogeneity may be reflected in the team's performance.

The central premise of upper echelons theory is that top executives view their situations - opportunities, threats, alternatives and likelihoods of various outcomes - through their own highly personalized lenses. This individualized construal of strategic situations arise because of executives' experiences, values, personalities and other human factors. Thus, according to the theory, organizations become reflections of their top executives become reflections of their top executives become reflections of their top executives become reflections of their top executives. (Hambrick, 2007).

Hambrick (2007) postulated that top managers who face a high level of challenges will have less time to contemplate decisions and therefore take mental shortcuts and rely more on their personal backgrounds. Thus, he predicts that the relationship between managerial characteristics and organizational outcomes will be stronger when the level of managerial challenges is high. In situations where managers face a lower level of challenges, in contrast, their decision making will be more thorough and rely less on their personal characteristics. Hence, the link between upper echelon characteristics and organizational outcomes should be weaker in such situations (Hambrick 2007).

2.2 Empirical Review of Literature

2.2.1 Change Management and implementation of IFMIS

Integrated Financial Management Information System is still regarded as a new concept or system among the staffs or employees within the county governments of Kenya. It is in human nature to resist change and by virtue of the system being new it is bound to receive some resistance. To overcome the resistance, it is important that a comprehensive change management exercise or training be carried out. Muriuki (2009) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. Other than reducing the adverse impact of resistance by employees or staffs on the adoption or implementation of new innovations change management can also be used to maximize on the benefits to be expected upon fully adoption of the new system by involving an educated and committed personnel. The process of change management entails development of stakeholders, management model, development of an effective strategy for communication and developing a framework for assessing change readiness.

Indeje & Zheng (2010) noted that with the adoption of new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance. The new system results in changing the way things were done before resulting to changes in the organization culture. 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.

Successful implementation of reforms of any nature in an organization solemnly depends on its capacity to change, the process within which it manages the changes and how it adjusts itself while undergoing the process of change (Indeje & Zheng, 2010). They further state that, in many cases resistance to change normally originates from various high ranked stakeholders within the organization. This may be majorly because of the benefits they may have been receiving from the previous methods and their belief that the new method or system will not allow them to continue enjoying the benefits they have been enjoying. This resistance may also be attributed to the fact that some of these stakeholders may thing that the new system may render them jobless since most of the work they used to do will be done by the system. It is in this reason that the project directors tasked with overseeing the entire implementation process must conduct detailed change management process in order to avert such fears hence less resistance (Indeje & Zheng, 2010).

Strategies to offer guidance on the change management process should be structured immediately a project on implementation of IFMIS 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 (Rozner, 2008). There is a high likelihood of the IFMIS implementation process failing if there is a failure in addressing pertinent issues during the early stages before the actual implementation process begins. This is because lack of it will lead to resistance especially from various key stakeholders such as elected political leaders and executive officials.

Rozner (2008) and Rodin-Brown (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. The Government of Kenya laid down strategies to address the change management process through Re-engineering of the entire implementation if the IFMIS. It focused towards addressing challenges faced in communication previously realized during pilot stage of implementation of IFMIS which significantly contributed to poor performance of the IFMIS 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).

2.2.2 Technological Infrastructure and implementation of IFMIS

Technological infrastructures are defined as the basic system functionality that includes both the software and the hardware of the IFMIS. Several researchers have indicated

that technology impacts on the successful implementation and adoption of management information system (Omwoha and Getuno, 2015). Though Proeller (2013) points out that complexity of a system makes it more likely to be positively appreciated as compared to very simple systems, Chêne (2010) also argues that making the right and simple technical choice for automation is so critical to the successful adoption and implementation of MIS. The platform on which the interconnectivity of the MIS operates also impacts on the successful implementation of the system and this involves the internet and the intranet facilities, as stated by Odunga (2015).

The technical challenges that impede the accomplishment of IFMIS key objectives are numerous. Some of the challenges include: lack of IT capacity that works with the system, resistance due to complexity and technical challenges of the software (Hendriks, 2012). Hendricks points out that lack of capacity with IT knowledge as one of the leading impediments to successful adoption of the IFMIS system. This can be due to the disparity in salary rewards of the private and public sectors with the private sector rewarding better salaries (Chêne, 2009). Additionally, low budget on personnel emolument leads to inadequate capacity. Studies in other countries indicate lack of IT staff as a major contributor to the slow implementation of IFMIS (Diamond and Khemani, 2005).

According to Dener et al. (2011), IFMIS is a complex and risky system that requires motivation to change so as to be implemented effectively. This requires the willingness and commitment from both the staff users and top management in the use of technology. Considering its complexity, the commitment will greatly influence how the IFMIS will be implemented or adopted. The lack of commitment to change may be attributed to

factors such as a need for *status quo* on the use of old manual systems, fear of risks that may occur in implementing the IFMIS and also fear of not knowing how to operate the new systems or a perception of ease of the system usage (Hendriks, 2012).

In Tanzania Chêne (2009) observes that there was noted a failure until the IT solution selected was a medium software package, which was significantly less complex comparatively to what is used, for example, in Ghana. It should be noted that such a system was backed by top management support. Similarly, in Ethiopia, the IFMIS project has faced numerous complications. The project implementation was not well resourced due to dependence on foreign aid policies, infrastructure issues and top management support due to changes in leadership (Chêne, 2009). In addition, however good they may look, not all strategies for implementation are acknowledged by the employees as may be anticipated by the management hence perceived as a form of resistance. This may be attributed to the fact that they fear to adopt to new system because of the fear of the unknown which may come with it or reluctance of leaving the system they are used to due to the personal benefits they used to enjoy. There are two main categories of resistance which are; the passive and active resistance. Passive resistance is characterized by the staff verbally accepting the implementation strategy but end up not following what is proposed in the plan maybe because of ignorance or just opt to do what they think is right. Active resistance, on the other hand, refers to where the employees reject the intended strategy verbally through critic, for example, by ridiculing or expressing the shortcomings of the intended plan (Chene, 2010).

Numerous IFMIS projects he not succeeded majorly because the basic system functionality had not been specified in a clear manner from the beginning of the intervention. In some circumstances, interfaces with existing IT systems have to be

developed to fit into specific settings of the country. IFMIS, which involves major hardware requirements, is also meant to be subjected to the local context and environment with a consideration to use Off-The-Shelf (OTS) or locally developed software (Dener et al., 2011). Power shortage and interruptions meant that in certain countries, generators and power supply units are needed as well (Chêne, 2010).

Studies with Kenya Government IFMIS shows, that the system has not fully provided the expected benefits of integrated financial planning, effective budgeting and control of public expenditure. Further, Mwaura (2016) notes that the use of obsolete infrastructure inherited from municipal governments cannot be able to handle the IFMIS software that requires advanced and improved software and hardware.

2.2.3 Human Capital Development and implementation of IFMIS

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. Equally, it's noted that it is also of the essence to come up with appropriate skills and capacity on the department of Information Technology to render aid to the IFMIS. As far as success of the IFMIS project is concerned, it is vital to ensure continuous involvement of key stakeholders in the development and implementation of the IFMIS system. 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.

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. Brar further suggested that the government should prioritize on its needs with putting more emphasis on personnel development. He also suggested that the education system should be structured such that it aligns itself with information and communication technology requirements of the country and focus on attracting and retaining of the rare ICT skills within the public sector or Government.

For the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process in Ghana. In Tanzania, one of the most influential factors that led to the success of implementation of the system was the prioritization of capacity building through conduction of several trainings on various stakeholders. Chene (2010) adds that absence of staff with the requisite information technology (IT) knowhow and experience cannot be mitigated with ease through training and hiring. The employment terms and salary structure in the Government sector are not suitable enough to fend off interests from the private sector. Individuals possessing such skills will opt to work in the private sector rather than working in the public sector even after being trained by the government.

For effective implementation of the IFMIS system, the Government should be very careful when outsourcing the technical services from an external team for each phase of the implementation process. It should ensure that the personnel contracted to perform

the tasks are well conversant with the management of financial operations within the government institutions. These consultants should have the capacity to design, implement, manage and operate government accounts. The consultant should also have experience in management and implementation of projects. 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).

Murphy (2002) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Improvements on the system are characteristically undermined by failure of the government in addressing human resource related issues such as manpower planning, recruitment of qualified staff, offering of attractive incentives and training of staffs. Improvements on the system have also been hampered by failure in restructuring of the organization and limited capacity in management by overlooking important aspects such as delegation of duties, empowerment of the middle level manages and advocating for team building skills. According to GoK (2010), 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 IFMIS Re-Engineering Strategy.

2.2.4 Top Management Commitment and implementation of IFMIS

It is very important that commitment from the top management takes the centre stage during introduction and execution of new innovations. This is because management

commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project (Murphy, 2002). Negative outcomes may result when the top management neglects or shows lack of dedication.

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. Findings established that top managers in developing countries rarely delegate responsibilities despite the fact that they lack experience in technology supported accounting i.e. computerized accounting making them unable to explore the system's capacity and capabilities in management of financial operations. In such an environment, chances of the system being user friendly are very low and end up not matching the requirements of the managers ending up not having the required level of management ownership. Diamond and Khemani (2005) recommended that the implementation of Integrated Financial Management Information System should be characterized by a strong backing from the political sector which will move down to management level. In their study, they indicated this is the approach that made adoption of IFMIS in Tanzania to be the most successful among all Anglophone countries.

Kimwele (2011) in his study established that top management laxity in supporting the implementation and usage of the Integrated Financial Management Information System in the way it should be done affects its efficiency and effectiveness in utilization by authorized users within the government. Their study further indicated that their failure to inspire and little understanding of the usage of the IFMIS system collectively have been a stumbling block towards successful adoption of IFMIS.

2.3 Summary and Research gaps

Integrated Financial Management Information System is still regarded as a new concept or system among the staffs or employees within the county governments of Kenya. It is in human nature to resist change and by virtue of the system being new it is bound to receive some resistance. To overcome the resistance, it is important that a comprehensive change management exercise or training be carried out. Muriuki (2009) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. Other than reducing the adverse impact of resistance by employees or staffs on the adoption or implementation of new innovations change management can also be used to maximize on the benefits to be expected upon fully adoption of the new system by involving an educated and committed personnel. The process of change management entails development of stakeholders, management model, development of an effective strategy for communication and developing a framework for assessing change readiness.

Technical challenges that impede the accomplishment of IFMIS key objectives are numerous. Numerous IFMIS projects have not succeeded because there was no clear specification of the functionality of the system from the onset of introduction or intervention. In some situations, creations of interfaces with the existing systems in Information Technology have to be developed to be in line with the specific settings of the country. IFMIS, which involves major hardware requirements, is also meant to be subjected to the local context and environment with a consideration to use Off-The-Shelf (OTS) or locally developed software (Dener et al., 2011).

For the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. Murphy (2002) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Improvements on the system are characteristically undermined by failure of the government in addressing human resource related issues such as manpower planning, recruitment of qualified staff, offering of attractive incentives and training of staffs. Improvements on the system have also been hampered by failure in restructuring of the organization and limited capacity in management by overlooking important aspects such as delegation of duties, empowerment of the middle level manages and advocating for team building skills.

It is critical that commitment from the top management should take center stage, during introduction and implementation of Integrated Financial Management Information System. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project (Murphy, 2002). Negative outcomes may result when the top management neglects or shows lack of dedication. A key outcome from the literature reviewed in this chapter is the fact that integrated financial management information system has been faced with a number of challenges even though various studies appreciate the IFMIS role towards effective management practices.

Though there are a number of research papers on the challenges of IFMIS implementation in Kenya, most of the research covers the developed economies with very little literature existing on IFMIS contribution towards effective management at the county governments in Kenya. It is further possible to argue that IFMIS contribution towards effective management in developed countries is different from countries like Kenya, which are still developing and faced with other unique challenges especially the fact that devolution is a new system to them. It is due to the scarceness of information in this field that this study sought to seal the gaps gap by assessing the challenges facing the implementation of IFMIS in county governments of Kenya.

2.4 Conceptual Framework

Conceptual framework involves forming ideas about relationships between variables in a study and showing relationships graphically or diagrammatically (Fuller, 2011). The independent variable of this study will comprise of change management, technological infrastructure, human capital development and top management commitment while the dependent variable will be the effective implementation of IFMIS.

Independent variables   **Dependent variable**

```
┌─────────────────────────────┐
│ Change Management           │
│  • Preparation for change to│
│    IFMIS                    │
│  • IFMIS usage commitment   │
└─────────────────────────────┘

┌─────────────────────────────┐              ┌──────────────────────────────┐
│ Technological Infrastructure│              │ Implementation of IFMIS      │
│  • Availability of a Reliable│             │  • Implementation of IFMIS   │
│    Network Connection       │              │  • Transparency and          │
│  • Availability of Modern ICT│             │    accountability on resource│
│    Facilities               │              │    utilization               │
└─────────────────────────────┘              └──────────────────────────────┘

┌─────────────────────────────┐
│ Human Capital Development   │
│  • Staff training on IFMIS  │
│  • Plans on capacity building│
└─────────────────────────────┘

┌─────────────────────────────┐
│ Top Management              │
│ Commitment                  │
│  • IFMIS usage support      │
│  • Resource allocation for IFMIS│
│    implementation           │
└─────────────────────────────┘
```

Figure 2.1 Conceptual Framework

For effective implementation of IFMIS change management process must be well carried out. This will involve sensitization of the system users on the positive impacts expected from the system. This will greatly improve on their level of commitment towards seeing the implementation being effective.

For effective implementation of IFMIS, appropriate technological infrastructure must be made available. There must be reliable network connectivity as required by IFMIS system due to its complexity. Due to frequent upgrades on the system, the organizations must always be ready to procure modern ICT equipment to facilitate the process in order to optimize on its utilization.

For effective implementation of IFMIS human capital development is very important. Even with availability of modern technology infrastructure and proper sensitization of the systems to the users, without human capital development, the implementation process is bound to fail. The users must be well trained so as to have the capacity to use the system effectively. Organizations must be encouraged to develop long term capacity building plans so as to ensure constant improvement on the skills of the users

For effective implementation of IFMIS human top management support is very crucial. It is responsible for overseeing the entire implementation process which entails allocation of resources for purchasing of the necessary technological infrastructure, resources for human capital development and resources for sensitization of users among others. Without their support, the implementation process is bound to fail.

2.5 Operationalization of Study Variables

Table 2.1: Variables Operationalization Matrix

Variable	Indicators	Scale of measurement	Analysis
Implementation of IFMIS	• Full implementation of IFMIS • Transparent and accountable use of county resources	Ordinal scale/ Likert	Multiple linear regression
Change Management	• Preparation for change to IFMIS • Commitment to use of IFMIS	Ordinal scale/ Likert	Multiple linear regression

Variable	Indicators	Scale of measurement	Analysis
Technological Infrastructure	• Reliable network connectivity • Modern ICT equipment	Ordinal scale/ Likert	Multiple linear regression
Human Capital Development	• Training of staff on IFMIS • Systematic long term capacity building plans	Ordinal scale/ Likert	Multiple linear regression
Top Management Commitment	• Support for use of IFMIS • Allocation of resources for IFMIS implementation	Ordinal scale/ Likert	Multiple linear regression

2.6 Chapter Summary

The discussion in the chapter commences with a brief introduction of the contents of the chapter. The chapter goes on to present theoretical and empirical review of the literature captured in this study. Empirical review of literature focused on scholarly articles on change management, technological infrastructure, human capital development and top management commitment in relation to implementation of Integrated Financial Management Information System (IFMIS). The chapter also highlighted research gaps which need to be filled and a conceptual framework which will offer guidance to the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Research methodology is an operational framework within which the facts are placed so that meaning may be seen more clearly. Kothari (2005) describes it as a systematic way of solving a research problem. This chapter discusses the research design that was adopted in the study. It also covers the target population, sample and sampling techniques, data collection instruments, pilot study, data collection procedure, data analysis and presentation and the ethical considerations of the study

3.1 Research Design

Research design refers to the specific procedures involved in a research process (Creswell, 2012). This study used a descriptive research design. According to Cooper and Schindler (2003) a descriptive study is concerned with finding out the what, where and how of a phenomenon. Descriptive research design provides factual, accurate and systematic data Mugenda (2012). The choice of the descriptive research design was based on the fact that in this study, the researcher was interested on the state of affairs already existing in the field and no variable would be manipulated. This study therefore was able to generalize the findings to a larger population.

3.2 Target Population

According to Creswell (2012) target population is a group of individuals or organizations, with some common defining characteristics that the researcher can identify and study. A target population can also be defined as a group of people that the

researcher wants to draw a conclusion from (Mugenda and Mugenda, 2012). The target population of this study comprised of 48 Nairobi county government employees who use IFMIS. The target respondents comprised of county executive accountants, county executive procurement officers, county executive accounting officers, county assembly accountants, county assembly procurement officers and county assembly clerks. Census/complete enumeration technique was used in this study which entailed gathering information from all the members in the target population. Summary is as shown in Table 3.1

Table 3.1 Target Population

Category	Target Population
County Executive Accountants	11
County Executive Procurement Officers	11
County Executive Accounting Officers	11
County Assembly Accountants	5
County Assembly Procurement Officers	5
County Assembly Clerks	5
Total	**48**

Source: Human resource. Nairobi City County (2018)

3.3 Data Collection Instrument

Data collection is a means by which information is obtained from the subject of investigation (Creswell, 2012). Self administred questionnaires were used to collect primary data for this study. The questionnaire ensured that details and relevant information on the subject of study was collected. The study used a questionnaire because it is flexible and facilitates the capture of large amount of data. As a method of data collection, questionnaires are appropriate because they are easy to analyse and is cost effective. (Kothari, 2011)

3.4 Pilot Study

Marczyk, DeMatteo and Festinger (2005) observe that pilot test is the start phase in data gathering of the research process. Pilot test is conducted to identify weaknesses in the data collection instruments and to provide alternative data for selection of a probability sample. They note that a pilot test should draw subjects from the target population and simulate the procedures and protocols that have been designated for data collection. In summary pilot test measures the reliability and validity of the instrument.

To avoid misrepresentation and to minimize errors, the researcher conducted a pre-test of the questionnaires before the actual data collection on 5 respondents which constituted 10% of the total respondent. According to Gay, (2003) 10% of the total respondents is recommended for pilot study. The five respondents who were selected for pilot study were not involved in the main study

3.4.1 Validity

According to Gay (2003) validity of the research instrument refers to the extent to which the instrument measures what it was intended to. Content analysis of the instruments of data collection was conducted to ensure that important themes of the study were captured in the questionnaire. During the pilot study, the researcher ensured that the respondents interpreted the questions in a uniform way. The content validity was determined by the supervisors looking at the questions in the questionnaire and check if they answered the research questions and addresses the objectives of the study. During pilot study, the instrument passed the validity test since the selected respondents were able to interpret the questions the way they were supposed to.

3.4.2 Reliability

Reliability is a measure of consistency of the results from a test (Kombo & Tromp, 2006). The researcher employed test-retest method to determine reliability. A questionnaire was administered to five respondents. After a week, the same questionnaire was administered to the same respondents and a comparison between their previous and latter responses made. The results from the two tests were correlated using the Spearman-Brown formula and reliability calculated.

$$R = \frac{2r}{1+r}$$

Where r = is the actual correlation between the halves of the instrument. The correlation between the halves of the instrument r=0.741 was obtained.

$$R = \frac{2(0.741)}{1+0.741} = 0.851$$

The findings indicated a reliability of 0.851. According to Mugenda and Mugenda (2012), a reliability coefficient of at least 0.80 implies that there is high degree of reliability of data.

3.5 Data collection Procedure

The researcher obtained an introductory letter from the University. After the introductory letter, the researcher obtained a research permit from the National Commission of Science, Technology Innovation (NACOSTI) and proceeded to the field to book appointments with the relevant officers. The researcher then visited the departments of the respondents to be involved in the study so as to familiarize with the environment and meet the respondents for the purpose of explaining the reasons for visits. The researcher then administered the questionnaires to individual respondents in person and guided them on how to fill them.

3.6 Data Analysis and Presentation

Collected data was analyzed according to the research objectives. Statistical software (SPSS) was used to analyze quantitative data which was presented in tabular and graphical form. The collected data was processed before being analyzed. The study also conducted regression analysis. The multivariate regression model developed was of the following form.

$$EI = \beta_0 + \beta_1 CM + \beta_2 TMC + \beta_3 HCD + \beta_4 TI + \varepsilon$$

Where:

EI = Effective Implementation of IFMIS

β_0 = Constant (The intercept of the model)

β = Coefficient of the X variables (independent variables)

CM = Change Management

TMC = Top Management Commitment

HCD = Human Capital Development

TI = Technological Infrastructure

ε = error term

3.7 Ethical Considerations

Ethics are considered an essential dimension in any research project for data collection processes and to make generalizations. According to Johnson and Christensen (2008) treatment of research participants is the most important and fundamental issue that researchers must confront. Indeed, the application of appropriate ethics can reduce the harm during the research process when the researcher creates tension between his or

her aims to identify the truth and generalize results against data from people at one side and people's rights and values from another side (Cohen et al, 2007).

According to Kothari (2004), these ethical standards are anonymity, confidentiality and privacy. Likewise, De Vaus (2002) and Gorman (2007) suggested that all kinds of research need to be based on four ethical standards: informed consent, anonymity, non-harm or beneficence and confidentiality. As a result, all respondents were given information sheets that outline the research aims, contained information about the nature of the research and also explained the extent of their involvement. The researcher provided participants with a consent form to be signed before the questionnaire administration.

Gorman (2007) and De Vaus (2002) suggested that the consent form include indications of the identity of the organization conducting the research, that participant cooperation was voluntary and that participant responses are guarded with respect to confidentiality. This was achieved through the informed consent letter given to the respondents beforehand. The informed consent explained the identity of the researcher, voluntary participation, anonymity and confidentiality.

In terms of anonymity and confidentiality, according to Mertens (2010) anonymity means that the researcher will not and cannot identify the respondents whereas confidentiality means that the researcher can match names with responses but ensures that no-one else will have access to them. In terms of confidentiality, this was done through outlining the information sheet and consent form to participants before they participated in the questionnaire filling so that they understood everything associated

with the study. They were assured that data will be kept confidential and not accessible to anyone other than the researcher and the information given would solemnly be used this study and the publication of results only. Participants were notified that their identities was not explicitly made known at any stage of this research. Participants' anonymity was strictly adhered to in order to avoid any contrary impact to them.

3.8 Chapter Summary

The discussion in the chapter begins with a brief introduction of the contents of the chapter. The chapter presented the research design to be adopted for the study. This chapter also presented the target population, sample and sampling techniques, data collection instruments, pilot study, data collection procedure, data analysis and presentation and the ethical considerations of the study.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents research findings and discussion of the study. Data collected was analyzed and presented according to the research objectives. The findings included the extent to which change management, technological infrastructure, human capital development and top management commitment affect effective implementation of IFMIS. Regression analysis was also conducted in this chapter, whereby a multiple regression model was developed which showed the extent to which the four independent variables can be used to predict the effectiveness of IFMIS implementation process.

4.1 General Information

4.1.1 Response Rate

Table 4.1 Response Rate

	Frequency	Percentage
Response	40	93
Non-response	3	7
Total	**43**	**100**

According to table 4.1 above, Ninety three percent of the respondents were available for the study. The response rate was considered adequate for the analysis. One hundred percent response rate was not attained because the questionnaires were administered through drop and pick method. Some of the respondents did not return the questionnaires while some were absent during the picking time.

4.1.2 Gender of respondents

Table 4.2 Summary of gender representation of the respondents

	Category	Frequency	Percentage
	Male	27	67.5
Gender	Female	13	32.5
	Total	**40**	**100**

4.1.3 Age of respondents

Table 4.3 Summary of the age of respondents

	Category	Frequency	Percentage
	18 - 25 years	2	5
Age of the Respondent	25-35 years	9	22.5
	36-45 years	13	32.5
	46-55 years	10	25
	Above 55 years	6	15
	Total	**40**	**100**

4.1.4 Education level of respondents

Table 4.4 Summary of the education level of respondents

	Category	Frequency	Percentage
Highest Level of Education	Primary education	0	0
	Secondary education	0	0
	Certificate	2	5
	Diploma	12	30
	Bachelors degree	20	50
	Masters degree	6	15
	Total	**40**	**100**

4.1.5 Position held by respondents

Table 4.5 Summary of the position held by respondents

	Category	Frequency	Percentage
	County Executive Accountant	10	25
Position held by the Respondent	County Executive Procurement Officer	9	22.5
	County Executive Accounting Officer	8	20
	County Assembly Accountant	4	10
	County Assembly Procurement Officer	4	10
	County Assembly Clerk	5	12.5
	Total	**40**	**100**

4.1.6 Duration in current position

Table 4.6 Summary of the duration in the current position

	Category	Frequency	Percentage
	Less than 5 years	32	80
Duration in the Current Position	5-10 years	8	20
	11-20 years	0	0
	Above 20 years	0	0
	Total	**40**	**100**

The study sought to establish general information of the respondents who took part in this study. From the findings, 67.5% of the respondents were males while 32.5% were females. This clearly portrayed there was gender imbalance in job distribution within the county. Most of the senior positions in the county were occupied by males. Majority

of the respondents (32.5%) were aged between 36 and 45 years old, 25% of them were aged between 46 and 55 years, 22.5% of them were aged between 25 and 35 years, 15% were aged above 55 years old and the remaining 5% were aged below 25 years. This showed that, only 27.5% of the senior employees were the youth clearly indicating that most of these positions were not evenly distributed age wise as the findings showed that it favored the elderly at the expense of the youth.

All the respondents had acquired post-secondary education with the majority (50%) having bachelors degree as their highest level of education. This was so because most of these positions are competitive and required individuals who are highly qualified academically. Twenty five percent of the respondents were county executive accountants, 22.5% of them were county executive procurement officers, 20% of them were county executive accounting officers, 10% of them were county assembly accountants, 10% of them were county assembly procurement officers and the remaining 12.5% of them were county assembly clerks. The study chose these high profile staff since they are more likely to use the Integrated Management Information System when carrying out their daily operations. Most of these respondents (80%) have been working in their current positions for a period of less than 5 years while 20% of them have been working in their current positions for a period of between 5 years and 10 years. This might have been so because of the changes in the top management of the county leadership might have prompted such changes downwards to middle level and lower level managers.

4.1.3 Departmental use of IFMIS for Recording and Accounting Transactions
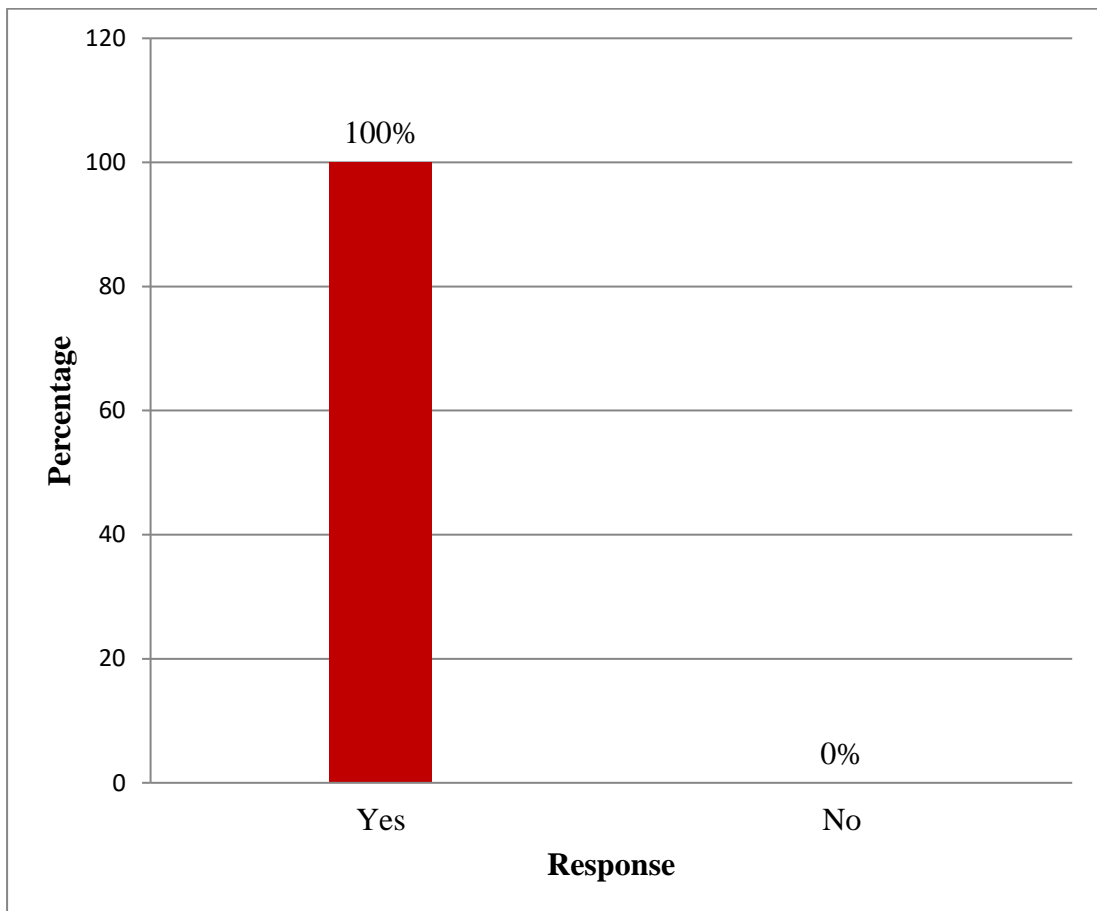
Figure 4.1 Departmental use of IFMIS for Recording and Accounting

Transactions

The study sought to establish whether the respondents were using IFMIS in their various departments for recording and accounting transactions. From the findings, all of them acknowledged using the system. From these findings it can be established that, most of the departments, if not all, were using the Integrated Financial Management Information System. This showed that the level of integration has really advanced as it is already in operation in key departments.

4.1.4 Involvement in the use of IFMIS in the Department
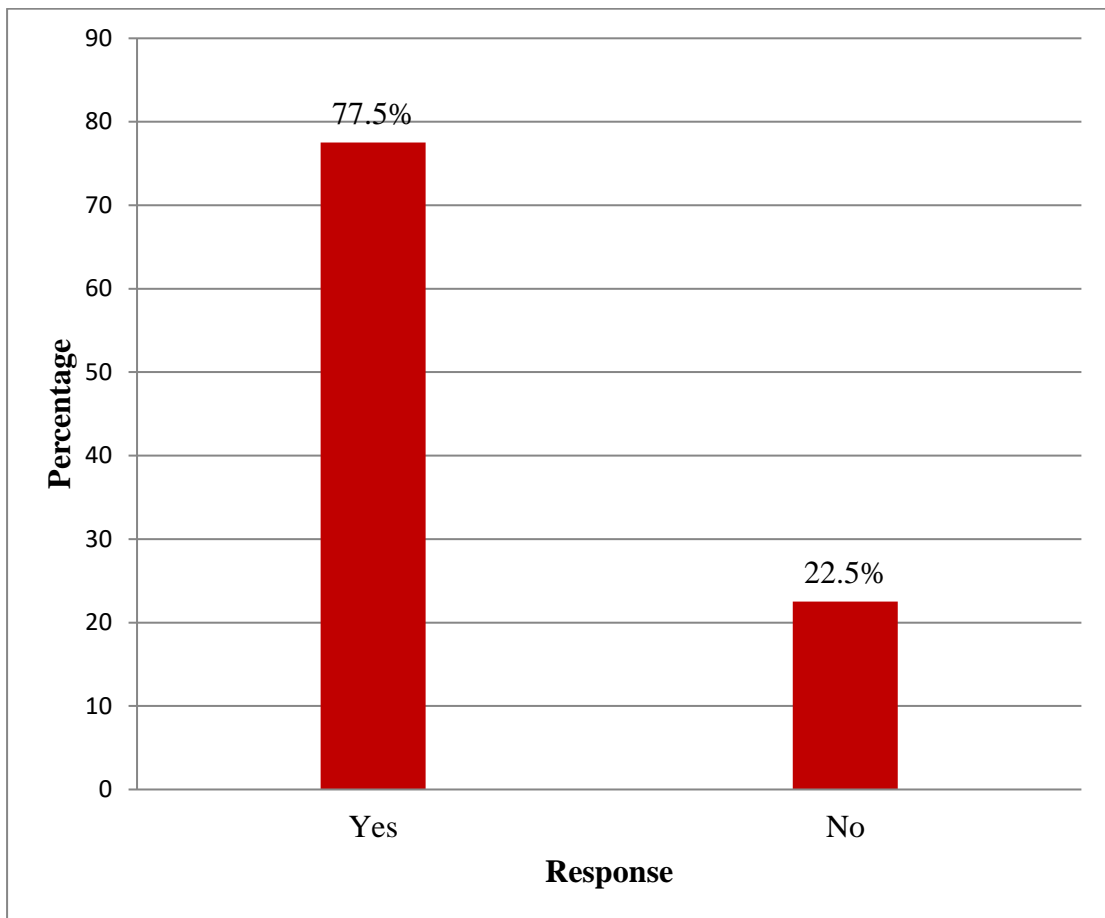
Figure 4.2 Involvement in the use of IFMIS in the Department

The study sought to establish whether the respondents were involved in using IFMIS in their various departments. From the findings, 77.5% of them acknowledged being involved whereas 22.5% did not. From these findings it can be established that, at least majority of the respondents were being involved in using of the Integrated Financial Management Information System in their various departments.

4.2 Change Management

4.2.1 Change Management effect on IFMIS Implementation
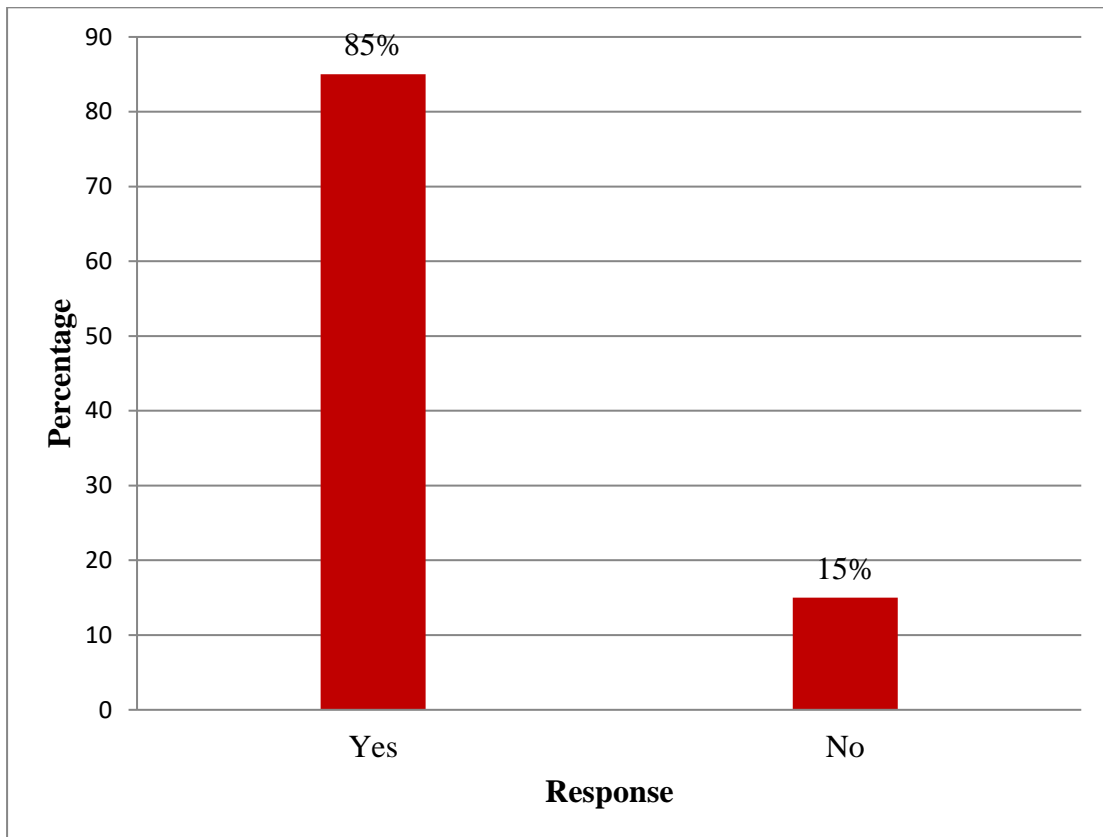
Figure 4.3 Change Management effect on IFMIS Implementation

The study sought to establish whether change management has affected IFMIS implementation process. From the findings, majority of the respondents (85%) agreed it had affected the implementation process whereas 15% indicated it did not affect the implementation process. This showed that, indeed the majority believed that change management can have a significant impact on adoption of a new system hence it should be treated with seriousness it deserves.

4.2.2 Extent to which Change Management has affected Effective IFMIS Implementation Process
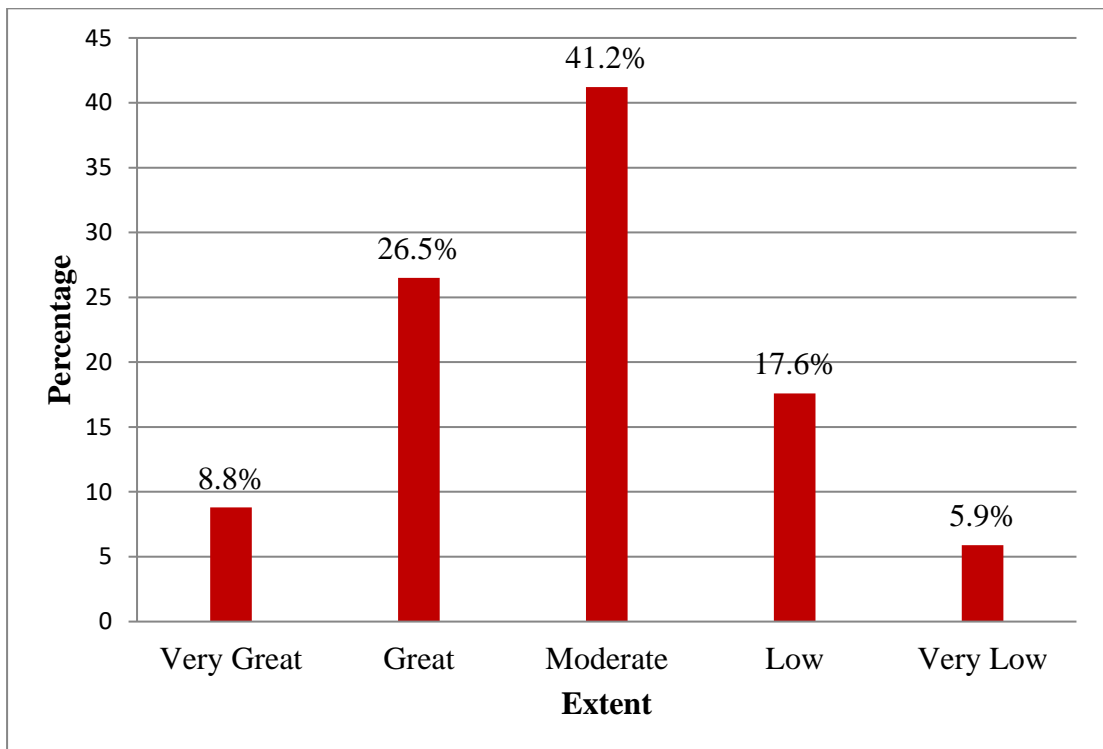
Figure 4.4 Extent to which Change Management has affected Effective IFMIS Implementation Process

The study sought to establish the extent to which change management has affected effective IFMIS implementation process. Majority of the respondents (41.2%) indicated that the extent was moderate. Twenty six point five percent indicated that the extent was great and further 8.8% indicated that it was very great. However, 17.6% indicated that the extent was low while 5.9 % indicated that the extent was very low. The study further sought to establish the general rating on the extent to which change management has affected the effective implementation of the IFMIS using the mean score. The rating scale adopted was as follows; (1.0-1.4)-Very Great, (1.5-2.4)-Great, (2.5-3.4)-Moderate, (3.5-4.4)-Low, (4.5-5.0)-Very Low. The mean obtained from the

respondents' response on change management effect was 2.85 implying that the extent was moderate.

Table 4.7 Change Management

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
There was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS	8(20)	19(47.5)	5(12.5)	6(15)	2(5)	2.38	1.125
There was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS	7(17.5)	21(52.5)	4(10)	7(17.5)	1(2.5)	2.35	1.051
There was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS	7(17.5)	19(47.5)	5(12.5)	8(20)	1(2.5)	2.43	1.083
There was a detailed orientation on the expected changes in responsibilities and the benefits associated with the	10(25)	21(52.5)	3(7.5)	5(12.5)	1(2.5)	2.15	1.027

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
changes upon introduction of IFMIS							
There was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS	7(17.5)	18(45)	5(12.5)	8(20)	2(5)	2.50	1.155
There was a detailed training on the expected users on the basic skills on how to use IFMIS	7(17.5)	18(45)	4(10)	9(22.5)	2(5)	2.53	1.176
There were frequent trainings on the users so as to improve on the level of awareness about IFMIS	10(25)	22(55)	3(7.5)	3(7.5)	2(5)	2.13	1.042
There were frequent trainings on the users' attitude by highlighting on the benefits expected upon adoption of IFMIS	10(25)	22(55)	4(10)	3(7.5)	1(2.5)	2.08	0.9441
Composite Mean						**2.32**	**1.075**

The study sought to assess various statements on change management carried out in the county. On assessment as to whether there was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction

of IFMIS, majority of them (47.5%) disagreed. On assessment as to whether there was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS, majority of them (52.5%) still disagreed. On assessment as to whether there was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS, majority of them (47.5%) disagreed. On assessment as to whether there was a detailed orientation on the expected changes in responsibilities and the benefits associated with the changes upon introduction of IFMIS, majority of them (52.5%) still disagreed. On assessment as to whether there was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS, majority of them (45%) disagreed too. On assessment as to whether there was a detailed training on the expected users on the basic skills on how to use the IFMIS, majority of them (45%) still disagreed. On assessment as to whether there were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system, majority of them (55%) disagreed. On assessment as to whether there were frequent trainings on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system, majority of them (55%) still disagreed.

This study further sought to establish the general rating of each statement on change management from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the fact that there was a detailed orientation on the expected changes in technology, processes, procedures and

responsibilities and the benefits associated with the changes upon introduction of IFMIS. The respondents also generally disagreed with the fact that there were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system. They also generally disagreed with the fact that there were frequent trainings on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system. However, generally, the respondents were not sure as to whether the orientations on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS were detailed enough. They were equally not sure as to whether the training on the expected users on the basic skills on how to use the IFMIS system was detailed enough.

This study further sought to establish the general rating of the level of change management carried out. The composite mean was used which was obtained using the means of each statement on table 4.3. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of level of change management carried out was generally low as indicated by a composite mean of 2.32. This implies that the nature of the orientation carried by the management was not adequate enough to ensure smooth implementation of the Integrated Management Information System. Most employees still had mixed reactions about the system probably because of the fear of unknown due of the changes expected. As Indeje and Zheng (2010) noted that with the adoption of new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance which might arise due to the fear of unknown

4.3 Technological Infrastructure

4.3.1 Technological Infrastructure effect on IFMIS Implementation
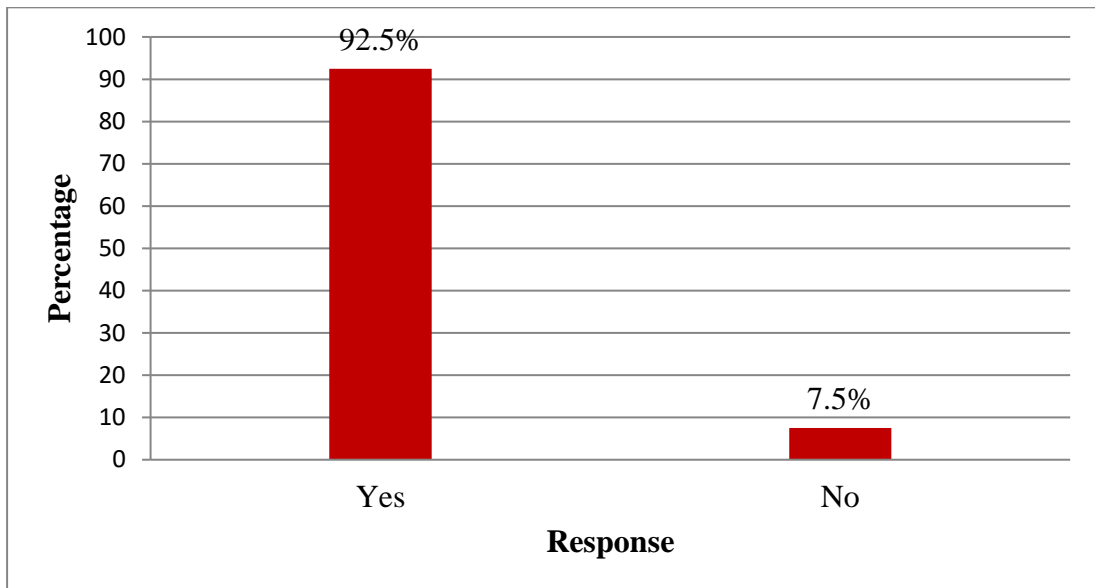
Figure 4.5 Technological Infrastructure effect on IFMIS Implementation

The study sought to establish whether technological infrastructure has affected IFMIS implementation process. From the findings, majority of the respondents (92.5%) agreed it had affected the implementation process whereas 7.5% denied its effects on the implementation process. This showed that, indeed the majority believed that technological infrastructure can have a significant impact on adoption of a new technological based system.

4.3.2 Extent to which Technological Infrastructure has affected Effective IFMIS Implementation Process
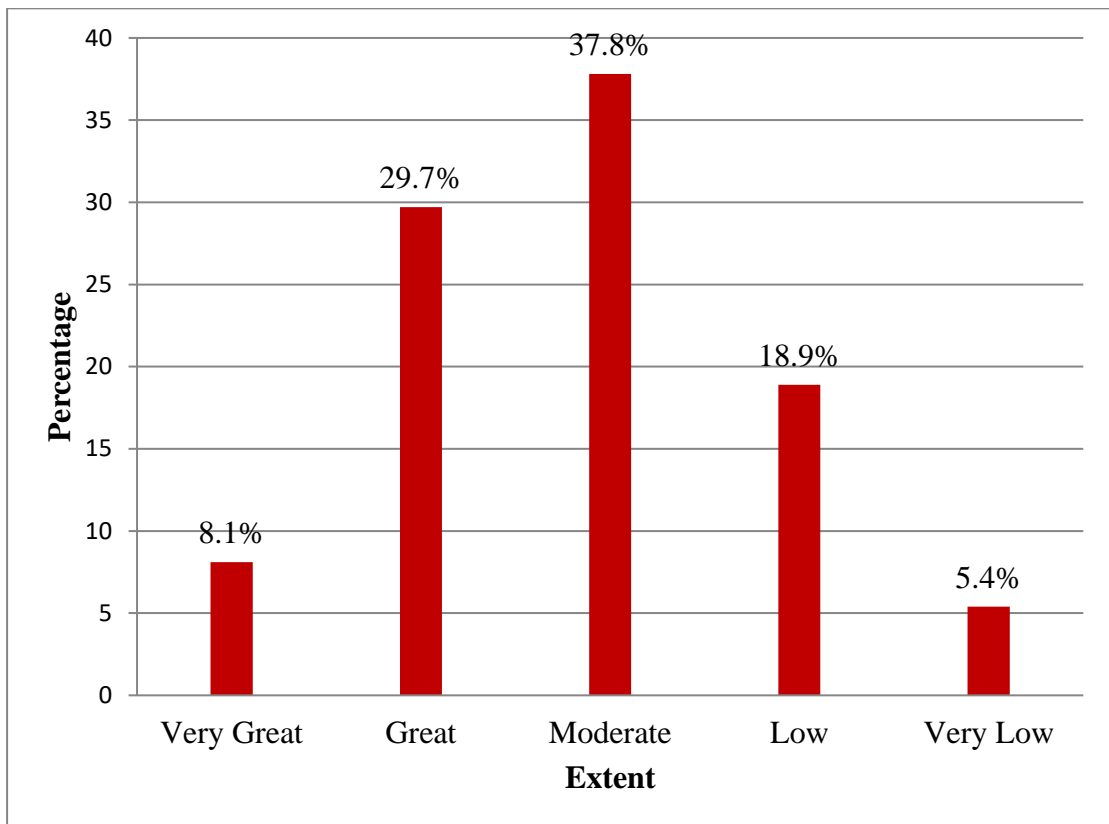
Figure 4.6 Extent to which Technological Infrastructure has affected Effective IFMIS Implementation Process

The study sought to establish the extent to which technological infrastructure has affected effective IFMIS implementation process. Majority of the respondents (37.8%) indicated that the extent was moderate. Twenty nine point seven percent indicated that the extent was great while 8.1% indicated that the extent was very great. However, 18.9% indicated that the extent was low while 5.4 % indicated that the extent was very low. The study further sought to establish the general rating on the extent to which technological infrastructure has affected the effective implementation of the IFMIS using the mean score. The rating scale adopted was as follows; (1.0-1.4)-Very Great, (1.5-2.4)-Great, (2.5-3.4)-Moderate, (3.5-4.4)-Low, (4.5-5.0)-Very Low. The mean

obtained from the respondents' response on technological infrastructure effect was 2.84

implying that the extent was moderate.

Table 4.8Technological Infrastructure

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
The ICT equipments available are adequate enough to serve all the offices using the IFMIS	9(22.5)	21(52.5)	3(7.5)	6(15)	1(2.5)	2.23	1.050
ICT equipments available are easily available to the IFMIS users	8(20)	16(40)	4(10)	11(27.5)	1(2.5)	2.53	1.176
The ICT equipments available have the capacity to run the IFMIS system efficiently	8(20)	22(55)	3(7.5)	6(15)	1(2.5)	2.25	1.032
There is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade	7(17.5)	18(45)	5(12.5)	8(20)	2(5)	2.50	1.155
The network available is reliable enough to enable the IFMIS system run efficiently	4(10)	16(40)	3(7.5)	11(27.5)	6(15)	2.98	1.310

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
There is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS	10(25)	23(57.5)	3(7.5)	3(7.5)	1(2.5)	2.05	0.932
There is a regular update of the IFMIS software for the purpose of improvement on its service delivery	10(25)	22(55)	5(12.5)	2(5)	1(2.5)	2.05	0.904
Composite Mean						**2.37**	**1.080**

The study sought to assess various statements on technological infrastructure in the county. On assessment as to whether the ICT equipments available are adequate enough to serve all the offices using the IFMIS system, majority of them (52.5%) disagreed. On assessment as to whether the ICT equipments available are easily available to the IFMIS system users, majority of them (40%) still disagreed. On assessment as to whether the ICT equipments available have the capacity to run the IFMIS system efficiently, majority of them (55%) disagreed. On assessment as to whether there is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade, majority of them (45%) still disagreed. On assessment as to whether the network available is reliable enough to enable the IFMIS system run efficiently, majority of them (40%) disagreed. On assessment as to whether there is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system, majority of them (57.5%) still disagreed. On assessment as to whether

there is a regular update of the IFMIS software for the purpose of improvement on its service delivery, majority of them (55%) disagreed too.

This study further sought to establish the general rating of each statement on technological infrastructure from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the fact that the ICT equipments available are adequate enough and have the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system. The respondents also generally disagreed with the fact that there is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system and a regular update of the IFMIS software for the purpose of improvement on its service delivery. However, generally, the respondents were not sure as to whether the ICT equipments available are easily available to the IFMIS system users and have the capacity to run the IFMIS system efficiently. They were equally not sure as to whether the network available is reliable enough to enable the IFMIS system run efficiently.

This study further sought to establish the general rating of the level of technological infrastructure capacity existing. The composite mean was used which was obtained using the means of each statement on table 4.4. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of level of technological infrastructure capacity existing was generally low as indicated by a composite mean of

2.37. This showed that the technological infrastructure within the county still lacked the capacity to ensure smooth running of IFMIS. The system was not that efficient due to challenges relating to technology.

4.4 Human Capital Development

4.4.1 Human Capital Development effect on IFMIS Implementation
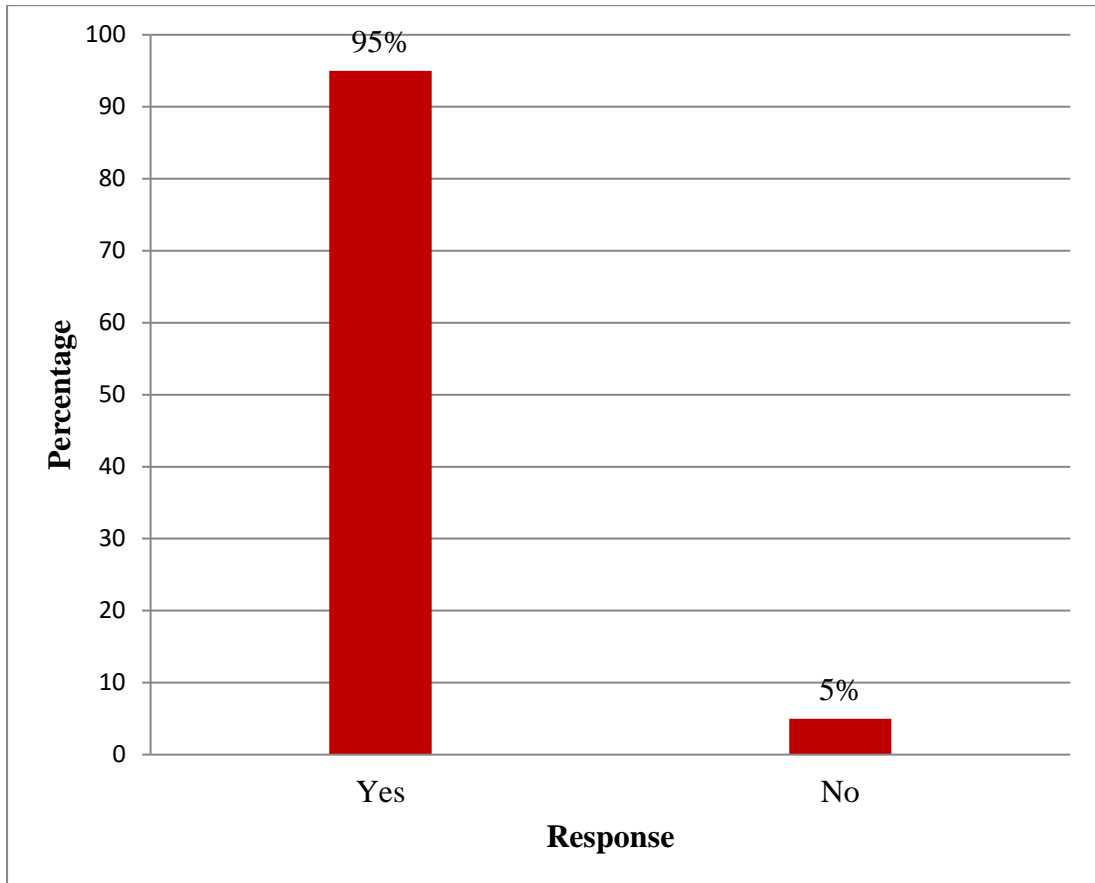
Figure 4.7 Human Capital Development effect on IFMIS Implementation

The study sought to establish whether human capital development has affected IFMIS implementation process. From the findings, majority of the respondents (95%) agreed it had affected the implementation process whereas 5% denied its effects on the implementation process. This showed that, indeed the majority believed that human capital development can have a significant impact on adoption of a new system hence it should be supported to ensure effective adoption.

4.4.2 Extent to which Human Capital Development has affected Effective IFMIS Implementation Process
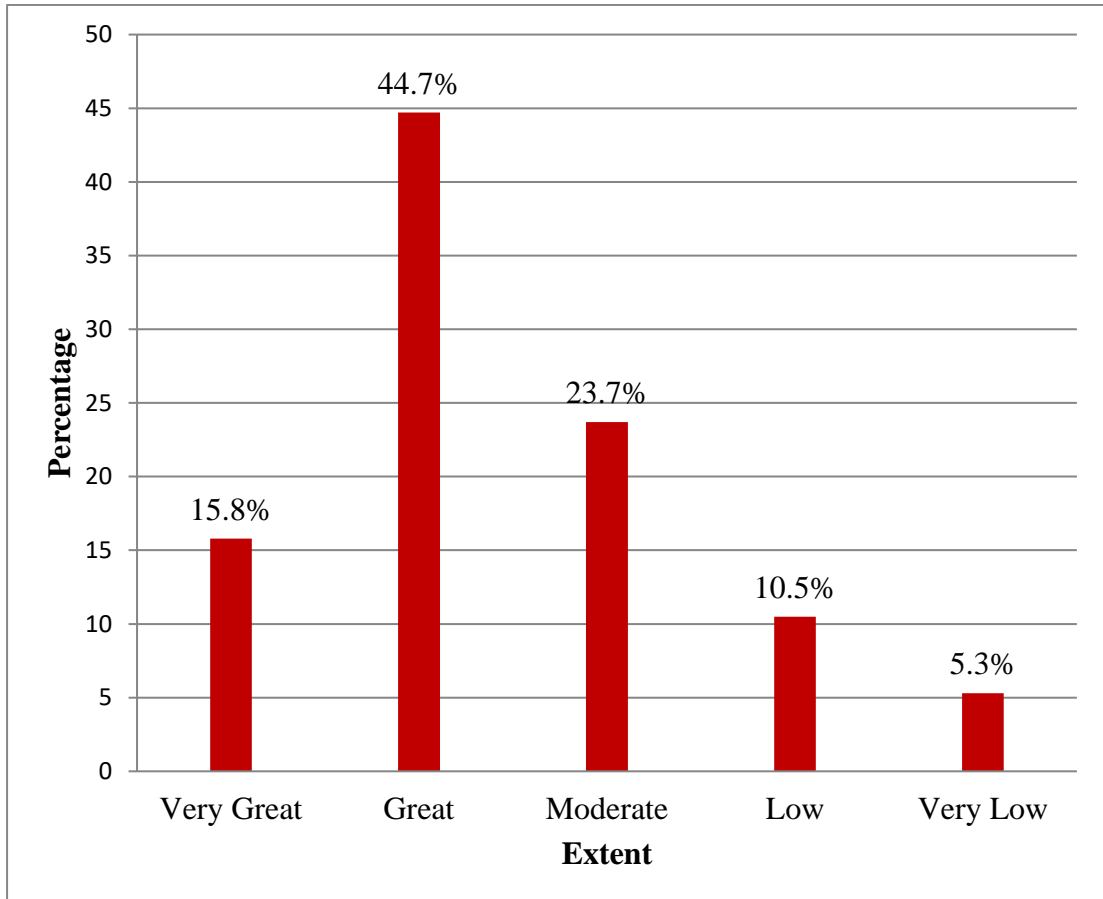
Figure 4.8 Extent to which Human Capital Development has affected Effective IFMIS Implementation Process

The study sought to establish the extent to which human capital development has affected effective IFMIS implementation process. Majority of the respondents (44.7%) indicated that the extent was great. Twenty three point seven percent indicated that the extent was moderate while 15.8% indicated that the extent was very great. However, 10.5% indicated that the extent was low while 5.3 % indicated that the extent was very low. The study further sought to establish the general rating on the extent to which human capital development has affected the effective implementation of the IFMIS

using the mean score. The rating scale adopted was as follows; (1.0-1.4)-Very Great, (1.5-2.4)-Great, (2.5-3.4)-Moderate, (3.5-4.4)-Low, (4.5-5.0)-Very Low. The mean obtained from the respondents' response on human capital development effect was 2.45 implying that the extent was great.

Table 4.9 Human Capital Development

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
The County has a proper training program for the use of IFMIS	9(22.5)	19(47.5)	3(7.5)	8(20)	1(2.5)	2.33	1.118
The County no longer relies heavily on experts to run the system	7(17.5)	22(55)	4(10)	7(17.5)	0(0)	2.28	0.960
The users are well trained to handle IFMIS	7(17.5)	21(52.5)	4(10)	8(20)	0(0)	2.33	0.997
Most users have accounting background which is essential in the use of the system	8(20)	20(50)	2(5)	8(20)	2(5)	2.40	1.172
The staff have sufficient skills to use the system effectively	9(22.5)	25(62.5)	3(7.5)	2(5)	1(2.5)	2.03	0.862
The staff are frequently trained so as to be up to date with their skills in running the system	9(22.5)	24(60)	3(7.5)	3(7.5)	1(2.5)	2.08	0.917

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
The county has sufficient number of staffs who have the capacity to use the system effectively and with ease	8(20)	16(40)	4(10)	11(27.5)	1(2.5)	2.53	1.176
The staff have good ICT background skills which will enable them to easily adopt the system	8(20)	22(55)	3(7.5)	6(15)	1(2.5)	2.25	1.032
There is a frequent invite of IFMIS experts/consultants to facilitate capacity building among users	7(17.5)	18(45)	5(12.5)	8(20)	2(5)	2.50	1.155
Composite Mean						**2.30**	**1.043**

The study sought to assess various statements on human capital development in the county. On assessment as to whether the County has a proper training program for the use of IFMIS, majority of them (47.5%) disagreed. On assessment as to whether the County no longer relies heavily on experts to run the system, majority of them (55%) still disagreed. On assessment as to whether the users are well trained to handle IFMIS, majority of them (52.5%) disagreed. On assessment as to whether most users have accounting background which is essential in the use of the system, majority of them (50%) disagreed. On assessment as to whether the staffs have sufficient skills to use the system effectively, majority of them (62.5%) still disagreed. On assessment as to whether the staffs are frequently trained so as to be up to date with their skills in running

the system, majority of them (60%) disagreed. On assessment as to whether the county has sufficient number of staffs who have the capacity to use the system effectively and with ease, majority of them (40%) disagreed. On assessment as to whether the staffs have good ICT background skills which will enable them to easily adopt the system, majority of them (55%) still disagreed. On assessment as to whether there is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the IFMIS users, majority of them (45%) still disagreed.

This study further sought to establish the general rating of each statement on human capital development from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the following statements. The County has a proper training program for the use of IFMIS, the County no longer relies heavily on experts to run the system, the County's IFMIS users are well trained to handle IFMIS, most users the County have accounting background which is essential in the use of the system, the staff have sufficient skills to use the system effectively, the staff are frequently trained so as to be up to date with their skills in running the system and the staff have good ICT background skills which will enable them to easily adopt the system. However, generally, the respondents were not sure as to whether the County has sufficient number of staffs who have the capacity to use the system effectively and with ease and as to whether there is a frequent invite of IFMIS professionals/experts/ consultants to facilitate capacity building among the users.

This study further sought to establish the general rating of the level of human capital development carried out in the county. The composite mean was used which was obtained using the means of each statement on table 4.5. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of level of human capital development carried out in the county was generally low as indicated by a composite mean of 2.30. This showed that, in as much as the county was applying effort to build up the capacity of the IFMIS users, the effort was still not enough. Most employees still lacked the capacity to effectively and efficiently use the system as it is supposed to be. As Diamond and Khemani (2006) stated, for the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. This was also echoed by Hendrick (2012) who stated lack of capacity as one of the most poignant derailments to the effectiveness of an IFMIS.

4.5 Top Management Commitment

4.5.1 Top Management Commitment effect on IFMIS Implementation
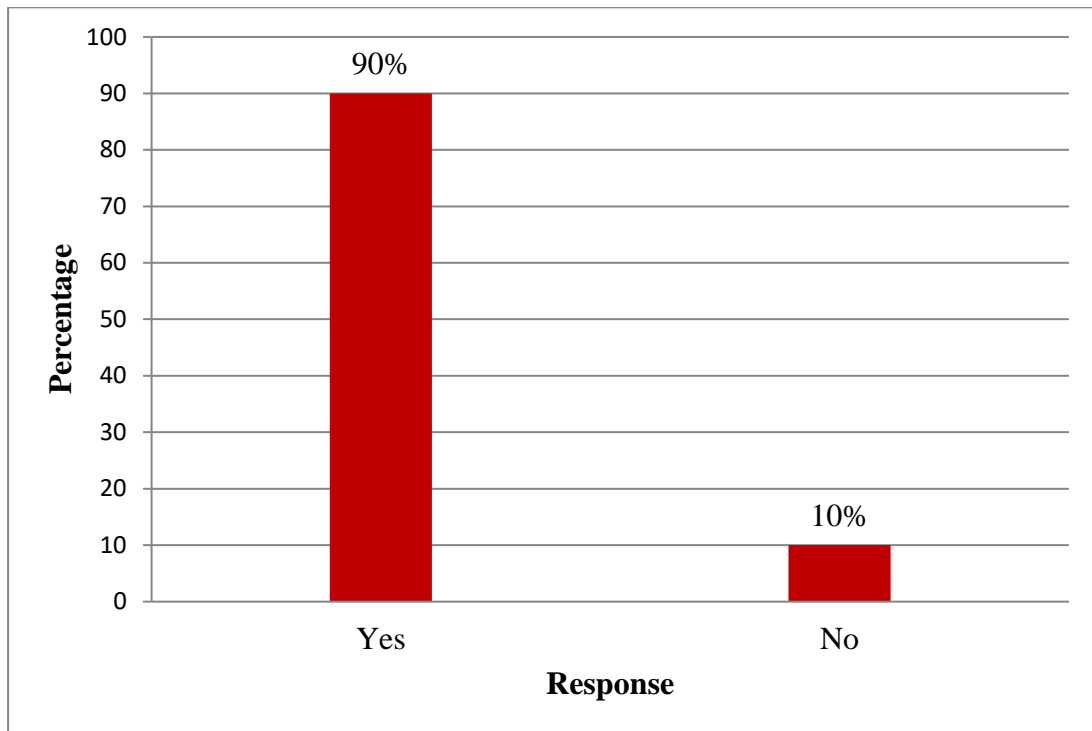
Figure 4.9 Top Management Commitment effect on IFMIS Implementation

The study sought to establish whether top management commitment has affected IFMIS implementation process. From the findings, majority of the respondents (90%) agreed it had affected the implementation process whereas 10% denied its effects on the implementation process. This showed that, indeed the majority believed that top management commitment can have a significant impact on adoption of a new system hence the management should always lead by example and show total commitment whenever new initiatives are adopted.

4.5.2 Extent to which Top Management Commitment has affected Effective

IFMIS Implementation Process
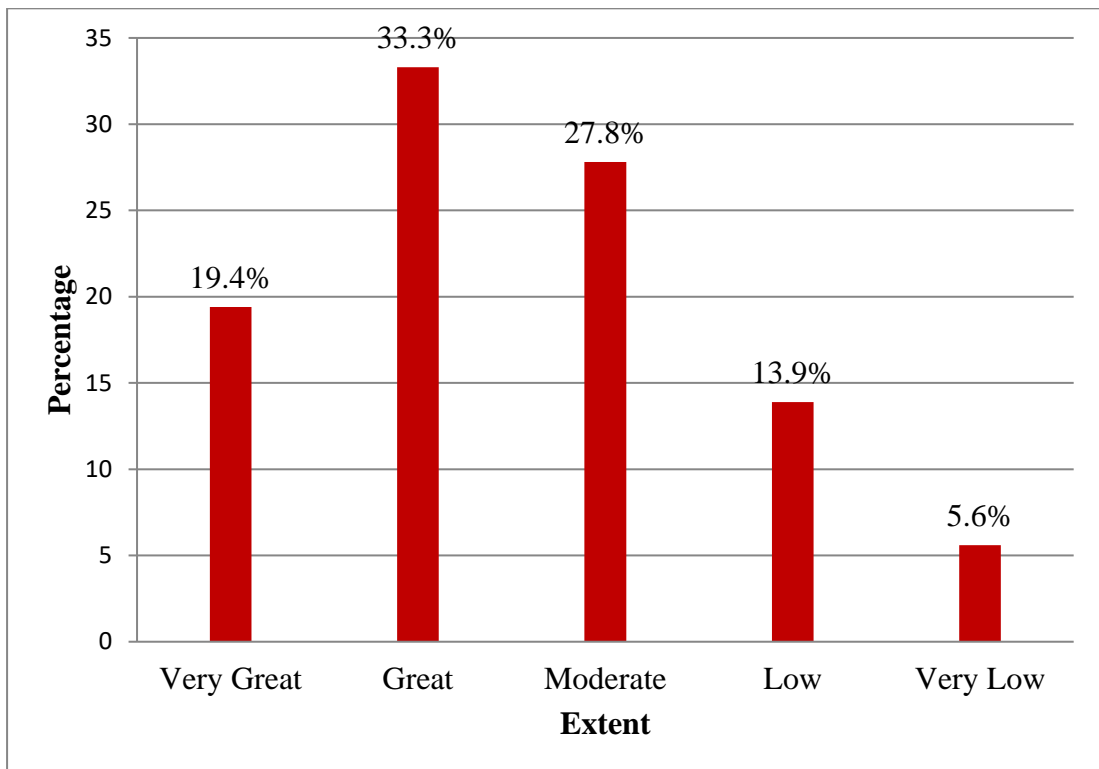
Figure 4.10 Extent to which Top Management Commitment has affected

Effective IFMIS Implementation Process

The study sought to establish the extent to which top management commitment has affected effective IFMIS implementation process. Majority of the respondents (33.3%) indicated that the extent was great. Twenty seven point eight percent indicated that the extent was moderate while 19.4% indicated that the extent was very great. However, 13.9% indicated that the extent was low while 5.6% indicated that the extent was very low. The study further sought to establish the general rating on the extent to which top

management commitment has affected the effective implementation of the IFMIS using the mean score. The rating scale adopted was as follows; (1.0-1.4)-Very Great, (1.5-2.4)-Great, (2.5-3.4)-Moderate, (3.5-4.4)-Low, (4.5-5.0)-Very Low. The mean obtained from the respondents' response on top management commitment effect was 2.53 implying that the extent was moderate.

Table 4.10 Top Management Commitment

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
Top management has the drive to inspire the use of IFMIS	7(17.5)	17(42.5)	5(12.5)	9(22.5)	2(5)	2.55	1.176
The management is well versed with IFMIS	7(17.5)	18(45)	4(10)	10(25)	1(2.5)	2.50	1.132
Top management has allocated sufficient financial resources to support IFMIS implementation process	10(25)	15(37.5)	3(7.5)	11(27.5)	1(2.5)	2.45	1.218
Top management has facilitated frequent training programs to the users of the system	8(20)	17(42.5)	4(10)	10(25)	1(2.5)	2.48	1.154
Top management has been on the frontline in approving the hiring of experts to foresee the	9(22.5)	16(40)	3(7.5)	11(27.5)	1(2.5)	2.48	1.198

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
implementation process							
Top management has been on the frontline in encouraging its employees to adopt the system positively	7(17.5)	19(47.5)	4(10)	10(25)	0(0)	2.43	1.059
Top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system	7(17.5)	18(45)	4(10)	11(27.5)	0(0)	2.48	1.086
Composite Mean						**2.48**	**1.146**

The study sought to assess various statements on top management commitment in the county. On assessment as to whether the top management has the drive to inspire the use of IFMIS, majority of them (42.5%) disagreed. On assessment as to whether the top management is well versed with IFMIS, majority of them (45%) still disagreed. On assessment as to whether the top management has allocated sufficient financial resources to support IFMIS implementation process, majority of them (37.5%) disagreed. On assessment as to whether the top management has facilitated frequent training programs to the users of the system, majority of them (42.5%) disagreed. On assessment as to whether top management has been on the frontline in approving the hiring of experts to foresee the implementation process, majority of them (40%)

disagreed. On assessment as to whether the top management has been on the frontline in encouraging its employees to adopt the system positively, majority of them (47.5%) still disagreed. On assessment as to whether the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system, majority of them (45%) disagreed.

This study further sought to establish the general rating of each statement on top management commitment from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the following statements. The top management has allocated sufficient financial resources to support IFMIS implementation process, the top management has facilitated frequent training programs to the users of the system, the top management has been on the frontline in approving the hiring of experts to foresee the implementation process, the top management has been on the frontline in encouraging its employees to adopt the system positively and the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system. However, generally, the respondents were not sure as to whether the top management is well versed with IFMIS and has the drive to inspire the use of IFMIS.

This study further sought to establish the general rating of the level of top management commitment in the county. The composite mean was used which was obtained using the means of each statement on table 4.6. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very

High. The findings established that the general rating the level of top management commitment was generally low as indicated by a composite mean of 2.48. This showed that, in as much as the top management showed some commitment towards the adoption and effective implementation of the IFMIS, the level of commitment was still not enough. Most employees still believed that the top managers were not fully supporting the system as it is required despite the fact that they are aware how important their influence is. Murphy (2002) states that it is very important that commitment from the top management takes the centre stage during introduction and execution of new innovations. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project. Negative outcomes may result when the top management neglects or shows lack of dedication.

4.6 Implementation of IFMIS System

Table 4.11 Implementation of IFMIS System

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
The IFMIS system is regularly stable	8(20)	22(55)	3(7.5)	6(15)	1(2.5)	2.25	1.032
All activities in the departments run within the IFMIS system	7(17.5)	18(45)	5(12.5)	8(20)	2(5)	2.50	1.155
All payment approvals are carried out in IFMIS	4(10)	16(40)	3(7.5)	11(27.5)	6(15)	2.98	1.310
Payment vouchers are prepared and approved in IFMIS before payment	10(25)	23(57.5)	3(7.5)	3(7.5)	1(2.5)	2.05	0.932

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
Purchase orders are generated exclusively through IFMIS	10(25)	22(55)	5(12.5)	2(5)	1(2.5)	2.05	0.904
LPOs and Invoices are fully captured onto the IFMIS	9(22.5)	19(47.5)	3(7.5)	8(20)	1(2.5)	2.33	1.118
IFMIS has supported county budgeting process	7(17.5)	22(55)	4(10)	7(17.5)	0(0)	2.28	0.960
IFMIS has robust support towards procurement of county items	7(17.5)	21(52.5)	4(10)	8(20)	0(0)	2.33	0.997
IFMIS is highly reliable to manage the accounts payable and account receivables	8(20)	20(50)	1(2.5)	9(22.5)	2(5)	2.43	1.196
IFMIS has in build controls at each level to ensure strict authorization of county expenditure	9(22.5)	25(62.5)	3(7.5)	2(5)	1(2.5)	2.03	0.862
IFMIS strongly supports the counties Cash Management policy	9(22.5)	24(60)	3(7.5)	3(7.5)	1(2.5)	2.08	0.917
IFMIS easily supports customization of required management	8(20)	16(40)	4(10)	11(27.5)	1(2.5)	2.53	1.176

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
reports based on the user levels or various revenue and expenditure streams							
IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period	8(20)	22(55)	3(7.5)	6(15)	1(2.5)	2.25	1.032
The IFMIS has improved the record management in the county	7(17.5)	18(45)	5(12.5)	8(20)	2(5)	2.50	1.155
The IFIMIS is a scalable system providing ability to add new additional services as they come up	7(17.5)	17(42.5)	5(12.5)	9(22.5)	2(5)	2.55	1.176
IFMIS has provided real time reports on customers service	7(17.5)	18(45)	4(10)	10(25)	1(2.5)	2.50	1.132
IFMIS has been highly integrated with other systems in the county with ease	10(25)	15(37.5)	3(7.5)	11(27.5)	1(2.5)	2.45	1.218
IFMIS has inbuilt capabilities to escalate long outstanding customer issues	8(20)	17(42.5)	4(10)	10(25)	1(2.5)	2.48	1.154

Statements	S.D F (%)	D F (%)	N.S F (%)	A F (%)	S.A F (%)	Mean	S.Dev
IFMIS is able to generate reports on number of services offered on daily basis per category	9(22.5)	16(40)	3(7.5)	11(27.5)	1(2.5)	2.48	1.198
IFMIS user interface is friendly to the users	7(17.5)	19(47.5)	4(10)	10(25)	0(0)	2.43	1.059
IFMIS system has been linked effectively with other revenue collection systems	7(17.5)	18(45)	4(10)	11(27.5)	0(0)	2.48	1.086
Composite Mean						**2.38**	**1.084**

The study sought to assess various statements on the Implementation of IFMIS System in the county. On assessment as to whether the IFMIS system is regularly stable, majority of them (55%) disagreed. On assessment as to whether all activities in the departments run within the IFMIS system, majority of them (45%) disagreed. On assessment as to whether all payment approvals are carried out in IFMIS, majority of them (40%) still disagreed. On assessment as to whether payment vouchers are prepared and approved in IFMIS before payment, majority of them (57.5%) disagreed. On assessment as to whether the purchase orders are generated exclusively through IFMIS, majority of them (55%) disagreed. On assessment as to whether the LPOs and Invoices are fully captured onto the IFMIS system, majority of them (47.5%) still disagreed. On assessment as to whether IFMIS has supported county budgeting process, majority of them (55%) disagreed. On assessment as to whether IFMIS has robust support towards procurement of county items, majority of them (52.5%) still disagreed. On assessment

as to whether IFMIS is highly reliable to manage the accounts payable and account receivables, majority of them (50%) disagreed. On assessment as to whether IFMIS has in build controls at each level to ensure strict authorization of county expenditure, majority of them (62.5%) still disagreed. On assessment as to whether IFMIS strongly supports the counties Cash Management policy, majority of them (60%) disagreed. On assessment as to whether IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams, majority of them (40%) disagreed. On assessment as to whether IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period, majority of them (55%) still disagreed. On assessment as to whether IFMIS has improved the record management in the county, majority of them (45%) disagreed. On assessment as to whether IFMIS is a scalable system providing ability to add new additional services as they come up, majority of them (42.5%) disagreed. On assessment as to whether IFMIS has provided real time reports on customers' service, majority of them (45%) still disagreed. On assessment as to whether IFMIS has been highly integrated with other systems in the county with ease, majority of them (37.5%) disagreed. On assessment as to whether IFMIS has inbuilt capabilities to escalate long outstanding customer issues, majority of them (42.5%) disagreed. On assessment as to whether IFMIS is able to generate reports on number of services offered on daily basis per category, majority of them (40%) still disagreed. On assessment as to whether IFMIS user interface is friendly to the users, majority of them (47.5%) disagreed. On assessment as to whether IFMIS system has been linked effectively with other revenue collection systems, majority of them (45%) still disagreed.

This study further sought to establish the general rating of the level of Implementation of IFMIS System in the county. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the following statements. The IFMIS system is regularly stable, Payment vouchers are prepared and approved in IFMIS before payment, Purchase orders are generated exclusively through IFMIS, LPOs and Invoices are fully captured onto the IFMIS system, IFMIS has supported county budgeting process, IFMIS has robust support towards procurement of county items, IFMIS is highly reliable to manage the accounts payable and account receivables, IFMIS has in build controls at each level to ensure strict authorization of county expenditure, IFMIS strongly supports the counties Cash Management policy, IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period, IFMIS has been highly integrated with other systems in the county with ease, IFMIS has inbuilt capabilities to escalate long outstanding customer issues, IFMIS is able to generate reports on number of services offered on daily basis per category, IFMIS user interface is friendly to the users and IFMIS system has been linked effectively with other revenue collection systems. However, generally, the respondents were not sure as to whether all activities in the departments run within the IFMIS system, All payment approvals are carried out in IFMIS, IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams, IFMIS has improved the record management in the county, the IFMIS is a scalable system providing ability to add new additional services as they come up and whether IFMIS has provided real time reports on customers service.

This study further sought to establish the general rating of the level of implementation of IFMIS System in the county. The composite mean was used which was obtained using the means of each statement on table 4.7. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating the level of Implementation of IFMIS System in the county was generally low as indicated by a composite mean of 2.38. This showed that in as much as the system was already implemented and in operation, the entire process of implementation was not that effective. There were still some loopholes which needed to be taken care of.

4.7 Regression Analysis

A multivariate regression model was applied to determine the relative importance of each of the variables with respect to implementation of IFMIS. In relation to the objectives, the study adopted the following model

$$I = \beta_0 + \beta_1 CM + \beta_2 TI + \beta_3 HCD + \beta_4 TMC + \varepsilon$$

Where:

I : Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_j : Coefficients of the independent variables (**CM, TI, HCD, TMC**)

CM : Change Management

TI : Technological Infrastructure

HCD : Human Capital Development

TMC : Top Management Commitment

ε : error term

A summary of the coefficients of regression equation is presented in Table 4.8.

Table 4.12: Coefficients of Regression Equation-A

	Unstandardized Coefficients		Standardized Coefficients	T	P-Value
	B	**Std. Error**	**Beta**		
(Constant)	1.985	1.843		-1.077	
CM	0.116	0.174	0.044	0.663	0.512
TI	1.381	0.250	0.470	5.529	0.000
HCD	0.551	0.231	0.208	2.382	0.023
TCM	0.891	0.188	0.313	4.747	0.000

Since the p-value for change management is greater than 0.05, it implies that its contribution to the model is insignificant. The variable is therefore eliminated from the model and the new coefficients for the regression model are given on table 4.9

Table 4.13: Coefficients of Regression Equation-B

	Unstandardized Coefficients		Standardized Coefficients	T	P-Value
	B	**Std. Error**	**Beta**		
(Constant)	1.828	1.814		-1.008	
TI	1.463	0.215	0.498	6.807	0.000
HCD	0.587	0.223	0.222	2.633	0.012
TCM	0.883	0.186	0.310	4.753	0.000

All the remaining three independent variables are significant due to the fact that all their p-values are less than 0.05. The fitted regression model therefore became as follows:

EI=1.828+ 1.463**TI**+ 0.587**HCD**+ 0.883**TCM**

Table 4.14: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
0.982	0.964	0.961	3.132	0.000

As indicated in Table 4.10, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that the combination of these factors (technological infrastructure, human capital development and top management commitment) affect the response variable (implementation of IFMIS). Further, R square = 96.4% implying that the explanatory variables accounted for 96.4% of the response variable. This implies that 96.4% of the variation in implementation of IFMIS is explained by technological infrastructure, human capital development and top management commitment leaving only 3.6% unexplained. The P–value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.8 Discussion of Key Findings

Majority of the respondents (41.2%) indicated that the change management process has affected IFMIS implementation process moderately with the general rating also being moderate. The findings established that the general rating of level of change management carried out was generally low. This implies that the nature of the orientation carried by the management was not adequate enough to ensure smooth implementation of the Integrated Management Information System. Most employees still had mixed reactions about the system probably because of the fear of unknown due of the changes expected. As Indeje and Zheng (2010) noted that with the adoption of

new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance which might arise due to the fear of unknown.

Majority of the respondents (37.8%) indicated that the technological infrastructure has affected IFMIS implementation process moderately with the general rating also being moderate. The findings established that the general rating of level of technological infrastructure capacity existing was generally low. This showed that the technological infrastructure within the county still lacked the capacity to ensure smooth running of IFMIS. The system was not that efficient due to challenges relating to technology. Hendricks, (2012), in his research pointed out that lack of capacity with IT knowledge and infrastructure as one of the leading impediments to successful adoption of the IFMIS system. Mwaura (2016) further noted that the use of obsolete infrastructure cannot be able to handle the IFMIS software that requires advanced and improved software and hardware.

Majority of the respondents (44.7%) indicated that human capital development has affected IFMIS implementation process greatly with the general rating also being great. The findings established that the general rating of level of human capital development carried out in the county was generally low. This showed that, in as much as the county was applying effort to build up the capacity of the IFMIS users, the effort was still not enough. Most employees still lacked the capacity to effectively and efficiently use the system as it is supposed to be. As Diamond and Khemani (2006) stated, for the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge.

Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. This was also echoed by Hendrick (2012) who stated lack of capacity as one of the most poignant derailments to the implementation of an IFMIS.

Majority of the respondents (33.3%) indicated that top management commitment has affected IFMIS implementation process greatly with the general rating being moderate. The findings established that the general rating the level of top management commitment was generally low. This showed that, in as much as the top management showed some commitment towards the adoption and implementation of the IFMIS, the level of commitment was still not enough. Most employees still believed that the top managers were not fully supporting the system as it is required despite the fact that they are aware how important their influence is. As stated by Murphy (2002) it is very important that commitment from the top management takes the centre stage during introduction and execution of new innovations. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project. Negative outcomes may result when the top management neglects or shows lack of dedication.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings based on the objectives. It also presents the conclusions made based on the findings. This chapter also presents recommendations made based on the findings of the study and suggestions for further studies.

5.2 Summary of the Key Findings

The findings established that change management process had affected the IFMIS implementation process moderately. The findings further indicated that the respondents generally disagreed with the fact that there was a detailed orientation on the expected changes in technology, processes, procedures and responsibilities and the benefits associated with the changes upon introduction of IFMIS. The respondents also generally disagreed with the fact that there were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system. They also generally disagreed with the fact that there were frequent trainings on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system. However, generally, the respondents were not sure as to whether the orientations on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS were detailed enough. They were equally not sure as to whether the training on the expected users on the basic skills on how to use the IFMIS system was detailed enough. The findings

further established that the general rating of level of change management carried out was generally low.

The findings also established that technological infrastructure within the county had affected the IFMIS implementation process moderately. The findings further established that the respondents generally disagreed with the fact that the ICT equipments available are adequate enough and have the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system. The respondents also generally disagreed with the fact that there is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system and a regular update of the IFMIS software for the purpose of improvement on its service delivery. However, generally, the respondents were not sure as to whether the ICT equipments available are easily available to the IFMIS system users and have the capacity to run the IFMIS system efficiently. They were equally not sure as to whether the network available is reliable enough to enable the IFMIS system run efficiently. The general rating on the level of technological infrastructure capacity in the county as established by the findings was generally low.

The findings established that human capital development carried out within the county had affected the IFMIS implementation process greatly. The findings further established that the respondents generally disagreed with the following statements. The County has a proper training program for the use of IFMIS, the County no longer relies heavily on experts to run the system, the County's IFMIS users are well trained to handle IFMIS, most users the County have accounting background which is essential in the use of the system, the staff have sufficient skills to use the system effectively, the

staff are frequently trained so as to be up to date with their skills in running the system and the staff have good ICT background skills which will enable them to easily adopt the system. However, generally, the respondents were not sure as to whether the County has sufficient number of staffs who have the capacity to use the system effectively and with ease and as to whether there is a frequent invite of IFMIS professionals/experts/ consultants to facilitate capacity building among the users. The findings further established that the general rating of level of human capital development carried out in the county was generally low.

The findings established that top management commitment within the county had affected the IFMIS implementation process moderately. The findings further established that the respondents generally disagreed with the following statements. The top management has allocated sufficient financial resources to support IFMIS implementation process, the top management has facilitated frequent training programs to the users of the system, the top management has been on the frontline in approving the hiring of experts to foresee the implementation process, the top management has been on the frontline in encouraging its employees to adopt the system positively and the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system. However, generally, the respondents were not sure as to whether the top management is well versed with IFMIS and has the drive to inspire the use of IFMIS. The findings established that the general rating the level of top management commitment was generally low.

The findings established that the respondents generally disagreed with the fact that the IFMIS system is regularly stable, Payment vouchers are prepared and approved in

IFMIS before payment, Purchase orders are generated exclusively through IFMIS, LPOs and Invoices are fully captured onto the IFMIS system, IFMIS has supported county budgeting process, IFMIS has robust support towards procurement of county items, IFMIS is highly reliable to manage the accounts payable and account receivables, IFMIS has in build controls at each level to ensure strict authorization of county expenditure, IFMIS strongly supports the counties Cash Management policy, IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period, IFMIS has been highly integrated with other systems in the county with ease, IFMIS has inbuilt capabilities to escalate long outstanding customer issues, IFMIS is able to generate reports on number of services offered on daily basis per category, IFMIS user interface is friendly to the users and IFMIS system has been linked effectively with other revenue collection systems. However, generally, the respondents were not sure as to whether all activities in the departments run within the IFMIS system, All payment approvals are carried out in IFMIS, IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams, IFMIS has improved the record management in the county, the IFMIS is a scalable system providing ability to add new additional services as they come up and whether IFMIS has provided real time reports on customers service. The findings further established that the general rating the level of implementation of IFMIS System in the county was generally low.

5.3 Conclusion

The change management process affected the IFMIS implementation process moderately. The orientation on the expected changes in technology, processes,

procedures and responsibilities and the benefits associated with the changes upon introduction of IFMIS were not that detailed enough.

The technological infrastructure within the county affected the IFMIS implementation process moderately. The ICT equipments available were inadequate enough and lacked the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system.

The human capital development carried out within the county affected the IFMIS implementation process greatly. Most staff lacked sufficient skills to use the system effectively. Most of the staff lacked ICT background skills which would have enabled them to easily adapt to the system.

The top management commitment within the county affected the IFMIS implementation process moderately. The financial resources allocated by the top management to support the implementation process were not sufficient enough to purchase adequate ICT equipments and facilitate staff trainings.

5.4 Recommendations

Based on the findings of this study, the following recommendations were made. A comprehensive change management process should always be undertaken whenever a new innovation is adopted in any organization.

Government and private institutions should ensure availability of the required up to date technological infrastructure to ensure smooth implementation of technological based innovations. Responsiveness being one of the key elements of good governance, the

management should be quick in responding to emergencies pertaining to the breakdown or absence of key ICT infrastructures to ensure smooth running of the system.

Organizations should invest heavily in capacity building so as to ensure their employees are well equipped with the required skills in order to perform effectively. Frequent staff trainings should be conducted by the county governments in order to improve on their capacity to handle the system efficiently.

The top management should offer support and act as role models as this will motivate their employees to perform even better. Participation being one of the key elements of good governance, the county top management personnel should participate fully on the entire implementation process as this will greatly encourage junior staff to do the same.

5.5 Suggestions for further studies

This study was only focused on county governments, perhaps a similar study can be extended to other government institutions like the public universities.

REFERENCES

Agarwal R., and Lucas J. (2005). The information systems identity crisis: focusing on high-visibility and high-impact research. *MIS Quarterly* 29(3), 381-398.

Alshehri M.,and Drew S. (2010). Implementation of e-Government: Advantages and Challenges. *Proceedings of the IASK International Conference E-Activity and Leading Technologies &InterTIC 2010*

Audenhove C, (2000).*Towards an Integrated Information Society Policy in South Africa.* HRSC Publishers

Bagozzi, R., Davis, F. & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Journal of Management Science* 35(8), 982-1003

Brar, P. (2010). IFMIS in Africa: Some key issues.

Chêne, M. (2010). *The Implementation of Integrated Financial Information Management Systems (IFMIS).* Transparency International

Cohen, L., Manion, L., & Morrison, K. (2007) *Research methods in education* (6th ed.). London: Routledge.

Cooper, R. D., Schindler, P. S. (2003). *Business Research Methods*. (8th ed.) New Delhi: Tata McGraw-Hill Edition

Creswell, J.W. (2012). *Educational Research: planning, conducting and evaluating quantitative and qualitative research* (4th ed.) Boston: Pearson Education Inc

De Vaus, D. A. (2002). *Surveys in social research*. London: Routledge.

Dener, C., Joanna, A. &William, D. (2011). *Financial management Information System:* 25 years of World Bank Experience on What works and What Doesn't. *Washington D.C*: The World Bank Group.

Diamond, J. & Khemani, P. (2006). Introducing financial management information systems in developing countries. *OECD Journal on Budgeting*, 5(3), 97-132.

Diamond, J. & Khemani, P. (2005). Introducing Financial Management Information Systems in Developing Countries. *IMF Working Paper, Fiscal Affairs Department,* WP/05/196

Fuller, B. (2011). *Cross-national Differences in Educational Achievement Inequality*. Washington D.C: World Bank.

Gay, L. (2003). *Educational Research, competence for Analysis and Applications*, New York: Macmillan publishers.

Gichoya, D. (2005). Factors Affecting the Successful Implementation of ICT Projects in Government" *The Electronic Journal of e-Government* 3(4), 175-184

Government of Kenya (GOK), (2001). *Public Financial Reform Management Strategy Paper 2001- 2006.* Government Printer.

Government of Kenya (GOK), (2011). *Strategic Plan for GoK IFMIS (2011- 2015).* Government Printer

Gorman, S. (2007). *Managing research ethics: A head-on collision?* In A. Campbell, And S. Groundwater-Smith (Eds.), *An ethical approach to practitioner research* (pp. 8-23). Abingdon: Routledge.

Gwillim, D., Dovey, K., & Wieder, B. (2005). The politics of post-implementation reviews. *Information Systems Journal.* 5(4), 1 – 10

Hambrick, D., Mason, P. (1984). Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206.

Hambrick, D. (1995). Fragmentation and the other problems CEOs have with their top management teams. *California Management Review*, 37(3), 110-127.

Hambrick, D. (2007). Upper echelon theory: revisited. *Academy of Management Review,* 32(2), -343

Heeks, R. & Stanforth C. (2007). Understanding e-government project trajectories from an actor network perspective, *European Journal of Information Systems*, 16(2), 165177.

Heeks, R. & Davies, A. (2000), Factors Affecting the Successful Implementation of ICT Projects in Government. *Journal of e-Government.* Volume 3 Issue 4 2005 (175-184)

Hendriks, C.J. (2012). Integrated financial management information systems: Guidelines for effective implementation by the public sector of South Africa. *SA Journal of Information Management*, 14(1), 1-9.

Indeje, W.G. & Zheng, Q. (2010). Organizational culture and information systems implementation: A structuration theory perspective. Sprouts: *Working Papers on Information Systems*, 10(27), 1-15.

Jackson, S. E. (1992). Consequences of group composition for the interpersonal dynamics of strategic issue processing. *Advances in strategic management*, 8(1), 345-382.

Johnson, R. B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches.* Thousand Oaks, CA: Sage publications

Kimwele, J. (2011). *Factors affecting effective implementation of Integrated Financial Management Information Systems (IFMIS) in government ministries of Kenya.* An Unpublished MBA Project, UoN

Kombo, D. K. & Tromp, L. A. (2006). *Proposal and thesis writing. An introduction.* Paulines Publications Africa

Kothari, C. K. (2004). *Research Methodology: Methods and Techniques*. New Delhi. New age international publishers.

Kothari, C.R. (2005). *Research Methodology*- Methods and Techniques, New Delhi, Wiley Eastern Limited.

Kothari, C.R. (2011). *Research Methodology: Methods and Techniques*. New Delhi. New Age International Publishers

Kotter, R. (1996). *Leading change.* Boston, Mass: Havard Business School Press.

Kotter, John P. (1996) *Leading Change.* Boston Harvard Business School Press,

Marczyk, G., DeMatteo, D. & Festinger, D. (2005). *Essentials of Research Design and Methodology*. John Wiley and Sons, Incl

Medlin, B.D. (2001). *The factors that may influence a faculty member's decision to adopt electronic technologies in instruction*. Doctoral dissertation, Virginia Polytechnic Institute and State

Mertens, D. M. (2010). *Research and evaluation in education and psychology:*

Mugenda, A. & Mugenda, O. (2012). *Research methods, quantitative and qualitative approach:* Africa Center of Technology (ACTS), Nairobi Kenya.

Mugenda, A & Mugenda, O. (2003). *Research Methods: Qualitative Approaches.* Nairobi, African Centre for Technology Studies.

Muriuki, M. (2009). *Challenges facing the ministry of Finance in the Adoption of Automated Financial Systems.* Unpublished Dissertation, University of Nairobi

Murphy, P. (2002). *Road map for implementation of an integrated financial management. The hidden threat to E-Government: Avoiding large government IT failures*. PUMA Policy Brief No.8

Njoroge, O. (2014). IFMIS will end corruption in the counties. *County budget implementation review report*, First quarter 2014/2015

Odunga, D. (2015). Rotich says governors resisting online tendering fear scrutiny. *Business Daily*

Omwoha, E. A., & Getuno, P. (2015). Constituents That Affect the Implementation of Sustainable Public Procurement in Kenyan Public Universities: A Case of Technical University of Kenya. *Unpublished Dissertation*

Proeller, K. I. (2013). Controlling the control system: performance information in the German childcare administration. *International Journal of Public Sector Management, 26,* 74-85.

Ramesh S. (2013). IFMIS Current Status, Challenges and Future Development. *Workshop on Treasury and Budget Reform Lombok, Indonesia 2-3 July2013,* World Bank Group

Rodin-Brown, E. (2008). *Integrated Financial Management Information Systems*. New York: The Louis Berger Group, Inc.

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

RoK, *Constitution of Kenya, 2010.* Government printer

RoK, *The County Government Act 2012.* Government printer

RoK, *The Public Finance Management Act 2012.* Government printer

RoK, *The Transition to Devolved Government act 2012*. Government printer

Rozner, S. (2008). Best practices in fiscal reform and economic governance: Introducing integrated financial management information systems.

Sahin, I. (2006). Detailed review of Rodgers' diffusion of innovations theory and educational technology – related studies based on Rodgers' theory. The Turkish Online *Journal of Educational Technology*, 5(2), 14-23.

Sigei S. (2013). *Critical success factors in the implementation of the re-engineered integrated financial management information system in government ministries, Kenya.* University of Nairobi

Vehovar V. & Lesjak D. (2007). Characteristics and impacts of ICT investments: perceptions among managers", *Jounal of Industrial Management & Data Systems*, 107(4)

Venkates, V. and Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model, Longitudinal Field Studies, *Management Science Jounal*, 46, (2):186-204.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Dear Sir/Madam,

RE: ACADEMIC RESEARCH PROJECT

I am a Postgraduate student at The Management University of Africa pursuing a Masters Degree in Management and Leadership. I wish to conduct a research entitled "**Determinants affecting the Implementation of the Integrated Financial Management Information System by the Nairobi City County, Kenya".** A questionnaire has been designed and will be used to gather relevant information to address the research objectives of the study. The purpose of writing to you is to kindly request you to grant me permission to collect information on this important subject.

 Please note that the study will be conducted as an academic research and the information provided will be treated in strict confidence. Strict ethical principles will be observed to ensure confidentiality and the study outcomes and reports will not include reference to any individuals.

Your acceptance will be highly appreciated.

Yours Sincerely

Benard Kipkirui Ngetich

APPENDIX II: RESEARCH STUDY QUESTIONNAIRE

My name is Bernard Ngetich. I am conducting a research on Determinants affecting the Implementation of the Integrated Financial Management Information System by the Nairobi City County, Kenya. This research is purely for academic purposes. I kindly request you to cooperate and fill out the questionnaire which seeks your views on this issue. The information that you give shall be treated confidentially and will only be used for academic reasons.

Circle your appropriate answer.

SECTION A: GENERAL INFORMATION

1. Gender
   1) Male
   2) Female

2. Age of the respondent
   1) Below 25 years
   2) 25-35 years
   3) 36-45 years
   4) 46-55 years
   5) Above 55 years

3. Highest level of education
   1) Primary education
   2) Secondary education
   3) Certificate
   4) Diploma
   5) Bachelors degree
   6) Masters degree
   7) Other (specify)…………………………………

4. Position held by the respondent
   1) County Executive Accountant
   2) County Executive Procurement Officer
   3) County Executive Accounting Officer
   4) County Assembly Accountant
   5) County Assembly Procurement Officer
   6) County Assembly Clerk

5. For how long have you in your current position

    1) Less than 5 years
    2) 5-10 years
    3) 11-20 years
    4) Above 20 years

6. Is your department involved in the use of IFMIS for recording and accounting transactions?

    1) Yes
    2) No

7. Are you deeply involved in the usage of IFMIS in your department?

    1) Yes
    2) No

SECTION B: CHANGE MANAGEMENT

8. Has change management process affected implementation of IFMIS

    1) Yes

    2) No

If ''*yes*'' to what extent

    1) Very great

    2) Great

    3) Moderate

    4) Low

    5) Very low

9. The table below indicates statements regarding change management conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

SD-(strongly Disagree), D-(Disagree), N.S-(Not Sure), A- (Agree), SA-(strongly Agree)

STATEMENTS	SD	D	N.S	A	SA
There was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS					
There was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS					
There was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS					
There was a detailed orientation on the expected changes in responsibilities and the benefits associated with the changes upon introduction of IFMIS					
There was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS					
There was a detailed training on the expected users on the basic skills on how to use the IFMIS system					
There were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system					
There were frequent trainings on the users attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system					

SECTION C: TECHNOLOGICAL INFRASTRUCTURE

10. Has change technological infrastructure affected implementation of IFMIS

> 1) Yes
>
> 2) No

If ''*yes*'' to what extent

> 1) Very great
>
> 2) Great
>
> 3) Moderate
>
> 4) Low
>
> 5) Very low

11. The table below indicates statements regarding technological infrastructure conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

SD-(strongly Disagree), D-(Disagree), N.S-(Not Sure), A- (Agree), SA-(strongly Agree)

STATEMENTS	SD	D	N.S	A	SA
The ICT equipments available are adequate enough to serve all the offices using the IFMIS system					
The ICT equipments available are easily available to the IFMIS system users					
The ICT equipments available have the capacity to run the IFMIS system efficiently					
There is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade					
The network available is reliable enough to enable the IFMIS system run efficiently					
There is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system					
There is a regular update of the IFMIS software for the purpose of improvement on its service delivery					

SECTION D: HUMAN CAPITAL DEVELOPMENT

12. Has change human capital development affected implementation of IFMIS

        1) Yes

        2) No

   If ''*yes*'' to what extent

        1) Very great

        2) Great

        3) Moderate

        4) Low

        5) Very low

13. The table below indicates statements regarding human capital development conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale **SD-(strongly Disagree), D-(Disagree), N.S-(Not Sure), A- (Agree), SA-(strongly Agree)**

STATEMENTS	SD	D	N.S	A	SA
The Ministry has a proper training program for the use of IFMIS					
The Ministry no longer relies heavily on experts to run the system					
The users are well trained to handle IFMIS					
Most users have accounting background which is essential in the use of the system					
The staff have sufficient skills to use the system effectively					
The staff are frequently trained so as to be up to date with their skills in running the system					
The county has sufficient number of staffs who have the capacity to use the system effectively and with ease					
The staff have good ICT background skills which will enable them to easily adopt the system					
There is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the users					

SECTION E: TOP MANAGEMENT COMMITMENT

14. Has top management commitment affected implementation of IFMIS

> 1) Yes
>
> 2) No

If ''*yes*'' to what extent

> 1) Very great
>
> 2) Great
>
> 3) Moderate
>
> 4) Low
>
> 5) Very low

15. The table below indicates statements regarding top management commitment conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

SD-(strongly Disagree), D-(Disagree), N.S-(Not Sure), A- (Agree), SA-(strongly Agree)

STATEMENTS	SD	D	N.S	A	SA
Top management has the drive to inspire the use of IFMIS					
The management is well versed with IFMIS					
Top management has allocated sufficient financial resources to support IFMIS implementation process					
Top management has facilitated frequent training programs to the users of the system					
Top management has been on the frontline in approving the hiring of experts to foresee the implementation process					
Top management has been on the frontline in encouraging its employees to adopt the system positively					
Top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system					

SECTION F: IMPLEMENTATION OF IFMIS SYSTEM

16. The table below indicates statements regarding implementation of IFMIS system conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

SD-(strongly Disagree), D-(Disagree), N.S-(Not Sure), A- (Agree), SA-(strongly Agree)

STATEMENTS	SD	D	N.S	A	SA
The IFMIS system is regularly stable					
All activities in the departments run within the IFMIS system					
All payment approvals are carried out in IFMIS					
Payment vouchers are prepared and approved in IFMIS before payment					
Purchase orders are generated exclusively through IFMIS					
LPOs and Invoices are fully captured onto the IFMIS system					
IFMIS has supported county budgeting process					
IFMIS has robust support towards procurement of county items					
IFMIS is highly reliable to manage the accounts payable and account receivables					
IFMIS has in build controls at each level to ensure strict authorization of county expenditure					
IFMIS strongly supports the counties Cash Management policy					
IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams					

STATEMENTS	SD	D	N.S	A	SA
IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period					
The IFMIS has improved the record management in the county					
The IFIMIS is a scalable system providing ability to add new additional services as they come up					
IFMIS has provided real time reports on customers service					
IFMIS has been highly integrated with other systems in the county with ease					
IFMIS has inbuilt capabilities to escalate long outstanding customer issues					
IFMIS is able to generate reports on number of services offered on daily basis per category					
IFMIS user interface is friendly to the users					
IFMIS system has been linked effectively with other revenue collection systems					

Certificate

Office Code :	M1867	Date :	2018-09-29
MIC No. :	2854	Status :	Published

Article Details

This is to certify that following paper has been published in IOSR Journals.

Article Title	:	Determinants Affecting the Implementation of the Integrated Financial Management Information System by the County Governments in Kenya: A case study of Nairobi City County
Author's Name	:	Bernard Kipkirui Ngetich , Dr. James Choge
Journal Name	:	IOSR Journal of Business and Management
ISSN	:	2278-487X
Publisher Name	:	International Organization of Scientific Research
Journal Url	:	www.iosrjournals.org
Publishing Model	:	Open Access Publishing
Review Type	:	Blind Peer Review Process
Journal Type	:	Indexed Refereed Journal
Volume No.	:	20
Issue No.	:	9
Article DOI	:	10.9790/487X-2009063237

Signature
Editorial Manager
IOSR Journals
support@iosrmail.org

NIC BANK
NICKE TRM BRANCH

CARDLESS CASH

DEPOSIT

DATE	TIME	ATM	TXN:
20/09/18	16:42	NIC0054	002444

RECIPIENT NAME: NATIONAL COMMISSION
NARRATION: RESEARCH
A/C NO   : 1001467375

DENOM:	NOTES:		AMOUNTS:
KES1,000.00 *	1	=	KES1,000.00

AMT : 1,000.00