EFFECTS OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM (IFMIS) ON CASH MANAGEMENT IN KENYA: CASE OF KISUMU COUNTY GOVERNMENT

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Thesis Submitted in Partial Fulfilment of the Requirements for the Award of the Degree of Masters of Business Administration (Strategic Management Option) at the Business School of The Catholic University of Eastern Africa.

MAY 2017

DECLARATION

DECLARATION

I, Nazareen Amondi Opiyo, Reg, number 1027802, declare that this thesis is my original w

and that it has not been presented to any other university.

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Signed ..... Date...10th MAY...2017

Authority from the Supervisors

This Thesis was submitted for examination with my approval as the university supervisor.

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DEDICATION

This thesis is dedicated to all those who gave me inspiration of pursuing my dreams. A special dedication to Awuor, thanks a lot for your support and encouragement, for always being there for me and for being my reason to want to excel even more.

ACKNOWLEDGEMENTS

To My heavenly father for taking me through this academic journey successfully and giving me strength, endurance, patience and wisdom during this research period. To my entire family for their support. To my employer for giving me the opportunity to pursue my academic dream.

To my supervisors for their valuable professional guidance and support during the project period.

A big thank you to all my lecturers in the Master of Business Administration Degree programme at The Catholic University of Eastern Africa, Kisumu and City Campus for giving me the power of knowledge.

To my fellow academicians, you made this entire journey interesting by your inputs in the various assignments.

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LIST OF ABBREVIATIONS

AIS: Accounting Information Systems

B2B: Business-to- Business

B2C: Business-to-Consumer

COBIT: Control Objectives for Information Technology

ERP: Entrepreneur Resource Planning

GDPPC: Gross Domestic Product Per Capita

G2G: Government to Government

G2B: Government to Business

G2C: Government to Customer

GoK: Government of Kenya

ICT: Information and Communication Technology

IT: Information Technology

IFMS: Integrated Financial Management System

IFMIS: Integrated Financial Management Information System

IAASB: International Auditing and Assurance Standards Board

IFAC: International Federation of Accountants

IIA: Institute of Internal Audit

IDRC: International Development Research Centre

IMF: International Monetary Fund

IPPD: Integrated Personnel Payroll Data

ISACA: IT, Audit, Security, Risk Management Certification.

ISO: International Organisation for Standadization

JFMIP: Joint Financial Management Improvement Program

KRA: Kenya Revenue Authority

LDCs: Less Developed Countries

LPOS: Local Purchase Orders

MDAs: Ministries Departments and Agencies

MOF: Ministry of Finance

MPRSP: Malawi Poverty Reduction Strategy Paper (MPRSP).

PFM: Public Financial Management

PEM: Public Expenditure Management

PFMR: Public Financial Reform Management

PPC: Percent Plan Complete

RBV: Resource Based View

ABSTRACT

The aim of this study was to investigate the effect of Integrated Financial Management Information System on cash management in the Kenya using the case of Kisumu County Government. The study used both primary and secondary data to achieve its objectives. The study used a census of 75 respondents of Kisumu County Government treasury. The respondent rate was 91%. The data was analyzed using Descriptive analysis method. One of the findings of the study was that the efficiency of the IFMIS has had a positive effect on cash management with 76% of the respondents agreeing. Another finding was that there is seamless flow of data from budgeting to reporting hence the IFMIS reliability positively affects cash management. Another conclusion from the study was that IFMIS implementation strategy had affected the cash management positively with 64% of the respondents agreeing. The findings of the study are important in that they can be used to formulate policies and strategies for promoting cash management in the Counties in particular and country in general. The researcher recommended that further studies be carried out on whether these factors also affect cash management in other County governments by using a wider representation and also by considering counties that were previously considered marginalized.

CHAPTER ONE

BACKGROUND

1.0 Introduction

This chapter presents the concept and definitions of Integrated Financial Management Information Systems (IFMIS) and cash management, profile of Kisumu County, statement of the problem, objectives and justification of the study as well as the scope.

1.0.1 Concepts and Definition of Cash Management and IFMIS

Cash Management

Cash management involves the efficient collection and disbursement of cash and any temporary investment of cash while it resides in the firm. It is mainly concern with the management of cash inflows and outflows of an entity, cash outflows within the business and cash balances held by the business at any given point of time (Khatik, 2009).

As defined by Teigen (2001), cash management can be seen as a part of treasury management, which is a staff service function that supports many different areas of the organization. Cash management includes the control and care of the cash assets and liabilities of the organization. Waltson and Head (2007) explained cash management as the concept which is concerned with optimizing the amount of cash available, maximizing the interest earned by spare funds not required immediately and reducing losses caused by delays in the transmission of funds.

According to Zimmerer et al. (2008) cash management is the process of forecasting, collecting, disbursing, investing, and planning for cash a company needs to operate smoothly. They further

added that cash management is a vital task because it is the most important yet least productive asset that a small business owns. A business must have enough cash to meet its obligations or it will be declared bankrupt. Creditors, employees and lenders expect to be paid on time and cash is the required medium of exchange.

Government cash management may be defined as "the strategy and associated processes for managing cost-effectively the government's short term cash flows and cash balances, both within government, and between government and other sectors" (Summer, 1981). Governments own none of the resources they spend. Taxpayers do. In a democratic society, the ways in which governments spend resources must be transparent and readily open to questioning. Accounting for Public sector funds and their proper expenditure is not only part of good management it is essential to good government and good governance of the public enterprise. It is also where governments are most heavily scrutinized and where they can get into a great deal of trouble (Summer, 1981).

Governments can improve its cash management if departments, ministries and devolved units reduce the amount of cash held in commercial banks. The Amyas Morse, national audit report (2009) pointed out that keeping as much money as possible in the exchequer is one of the most important elements of good cash management in government since it reduces government borrowing and minimizes the risks and allows governments to plan and manage its cash flow more cost effectively. An important aspect of cash management is forecasting, inaccurate forecasting of cash flows by government departments can lead to losses for the taxpayer.

Governments in developing countries are increasingly exploring methods and systems to modernize and improve public financial management. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (IFMIS) 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. The scope and functionality of an IFMIS varies across countries, but normally it represents an enormous, complex, strategic reform process (Chêne 2009: 3).

Efficient cash management may not just mean trying to control the timing of government expenditures to match the timing of cash receipts but also ensuring that invoices are processed promptly and obligations met without any or with as minimal delay as possible. (Graeme, 2004).

Integrated Financial Management Information System (IFMIS)

According to both Dorotinsky (2003) and Rozner (2008), an IFMIS is an information system that tracks financial events and summarises financial information. It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed (Rodin-Brown, 2008).

An IFMIS is a fiscal tool for government that bundles all financial management functions into one suite of applications. It is an Information Technology (IT) based budgeting and accounting system designed to assist the government entities on how to plan budget requests, spend their budgets, manage and report on their financial activities, and deliver services to the public more efficiently, effectively and economically. IFMIS operates on a common structure and platform that will enable improved compatibility and consistency of fiscal and financial information, reduces governments overall investment in the development of expensive accounting systems in

each government entity. An IFMIS is a standardized monitoring and reporting system, which consolidates all the information needs of a government into one information database. It facilitates consistent recording and reporting of information, to enable a government to take macro decisions that affect the country as a whole (Government of Kenya [GoK], 2003)).

One of the basic features of the IFMIS is the ability to interface with a number of existing and planned automated systems such as the Integrated Personnel Payroll Data (IPPD) and Government Payments Solution (G-pay). IFMIS software to Kenya government was contracted to Oracle Financials in 2003. Oracle Financials being an Entrepreneur Resource Planning (ERP) was designed to consolidate the core modules to all ministries, these are; purchasing module, accounts payable module, general ledger module, cash management module and public sector budgeting module (GoK, 2003). Effectiveness and improved outcomes are important goals for any IFMIS acquisition. The objective of implementing an IFMIS system is to increase the effectiveness and efficiency of state financial management and facilitate the adoption of modern public expenditure management practices. The benefits of an IFMIS include: better fiscal management, more optimal resource allocation, improved management of resources, reduced fraud and corruption, improved transparency and accountability, lower transaction costs (GoK, 2003).

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

financial management of line ministries, spending agencies and other public sector operations (Casals and Associates, 2004).

IFMIS and Cash Management

Financial management in public organizations is concerned with ensuring funds are available when needed and that these funds are obtained and used in the most efficient and effective way to the benefit of the citizens (Waddell, 2000). Lightbody (2000) referred to financial management as the process of managing financial resources, including management decisions concerning accounting and financial reporting, forecasting, and budgeting. Cash management forms part of financial management as it deals with forecasting, collecting, disbursing, investing, and planning for cash in an organization.

Over the past few years developing countries including Kenya have increasingly embarked on computerizing their government operations particularly with respect to Public Finance management. The establishment of an IFMIS has become an important benchmark for the country's budget reform agenda often regarded as a precondition for achieving effective management of budgetary resources (Diamond et al, 2005).

Several studies have been carried out on IFMIS.

Njonde and Kimanzi (2014) carried out a study on Effect of integrated financial management information system on performance of public sector using the case of Nairobi county government, the study found out that 68% of the respondents agreed that accuracy and speed were some of the benefits realized from using the IFMIS. 34% recorded no benefits realized on use of the system. 84% of the respondents from that study indicated that budgeting have improved by use of IFMIS and that there was timely preparation of the budget.

Musee (2011) found out that effective use of IFMIS is affected largely by sabotage and resistance. The study also established that high level support for use of the system is lacking and top management did little to inspire the user. The capacity and technical knowhow was found to be low due to lack of training and the hurried implementation of the system. The study however falls short of establishing the relationship between IFMIS and financial performance of state corporations which was the domain of the current study.

1.0.2 Profile of Kisumu County

Kisumu County is one of the new devolved counties of Kenya. Its borders follow those of the original Kisumu District, one of the former administrative districts of the former Nyanza Province in western Kenya. Its headquarters is Kisumu City. It is the third largest city in Kenya, the principal city of western Kenya, the immediate former capital of Nyanza Province and the headquarters of Kisumu County. It has a municipal charter but no city charter. It is the largest city in Nyanza region and second most important city after Kampala in the greater Lake Victoria basin. The population of Kisumu County is 968,909 (GoK, 2009). The land area of Kisumu County totals 2085.9 km^2 (GoK, 2009).

Kisumu County sits on the shores of Lake Victoria, providing it with the potential to be a major center of fishing. Some of the economic activities in Kisumu include: Rice is grown under irrigation in the Kano Plains, sugarcane production in Towns like Kibos, Miwani and Chemelil. Kisumu County is fast developing into a major tourist destination in the Western Tourism Circuit of Kenya. Features like the shoreline of Lake Victoria, Kit Mikayi and other rocks of similar stature, Ndere Island National Park which hosts an amazing variety of wildlife within a confined area. The County government of Kisumu is governed by Hon Jackton Ranguma and the deputy is

Ruth Odinga. The County Government is made up of the county assembly and the executive wing of the county has 10 departments each is headed by Chief Executive Committee Member.

1.1 Statement of the Problem

There is a general agreement that a fully functioning IFMIS can improve governance by providing real time financial information that finance managers and other managers can use to administer programs effectively, formulate budgets, and manage resources (Karanja, 2014: Ng'ang'a, 2014). The National Treasury is responsible for providing proper budgetary and expenditure management of government financial resources. In this regard, the treasury has been continually striving to improve financial management systems through various public financial sector reform programmes, aimed at increasing transparency, accountability, as well as responsiveness of public financial resources to enhance the quantity and quality of public service delivery to meet its developing priorities (GoK, 2008-2012).

Sound IFMIS systems, coupled with the adoption of centralized treasury operations, can not only help Kisumu County Government gain effective control over its finances, but also enhance transparency and accountability, reducing political discretion and act as a deterrent to corruption and fraud. IFMS seeks to enhance confidence and credibility of financial reports through greater comprehensiveness and transparency of information. The system seeks to improve budget planning and execution by providing timely and accurate data for budget management and decision making. It also ensures that all users adhere to common standards, rules and procedures, with the view to reducing risks of mismanagement of public resources in the County.

There have been several studies on effects of implementation of IFMIS on public sector financial management. This study hopes to analyze the effects of reliability and efficiency IFMIS on cash

management and also analyze if the effects of the implementation strategy has had an effect on cash management of the Kisumu County Government.

1.2 Objectives of the Study

The overall objective of the study is to investigate the effects of IFMIS on cash management in Kenya using case study of Kisumu County while specific objectives include the following:

I. To examine reliability of the IFMIS on cash management in the County Government of Kisumu.
II. To examine the effects of IFMIS implementation strategy on cash management performance of in Kisumu County.
III. To examine the efficiency of IFMIS on cash management processes in Kisumu County.

1.3 Justification of the Study

This thesis informed those charged with management of accounting system in Kisumu County Government on how to improve on their cash management practices and how to overcome the existing challenges that may be hindering the county from benefiting from the benefits of IFMIS. The study also provided an avenue for users of the system to make suggestion to the system developers on areas of improvement for increased efficiency for the IFMIS for users.

Upon completion the study also contributed to the existing body of knowledge which can be used as reference point by academicians, scholars and researchers.

1.4 Scope and Delimitations of the Study

Population is the entire group of individuals or items under consideration in any field of inquiry and has a common attribute (Kothari, 2004). The scope of the study was the staff members of Kisumu County Treasury who use the IFMIS system for their day to day work and include

accountants, internal auditors, finance officers, budget officers, chief officers and the County Executive committee member. The period of focus was the financial year 2015/2016 that starts from1st July 2015 to 30th June 2016.

Delimitations of the study include: IFMIS systems are complicated, expensive, and difficult to manage and maintain. (Rodin-Brown, 2008) the study may not find a way of reducing the costs associated with maintaining the system. The study may not find the extent to which management and institutional structures support and sabotage the use of the system.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the theoretical and empirical literature review of the study. The theoretical review covers issues related to implementation of IFMIS in Kenya and the theories of IFMIS and cash management. The empirical review deals with issues related to IFMIS experiences in developing countries, IFMIS re-engineering, E- government in a developing country and reforming public finance management in Kenya.

2.1 Theoretical Review

2.1.1 IFMIS in Kenya

The Kenya Government has implemented IFMIS since the year 2005 as its sole accounting system. The reason why the Kenya Government adopted the use of this system was as a result of the numerous benefits envisaged from its effective use. The introduction of Integrated Financial Management Systems has become a core component of financial reforms to promote efficiency, security of data management and comprehensive financial reporting. IFMS provides an integrated computerized financial package to enhance the effectiveness and transparency of public resource management by computerizing the budget management and accounting system for a government.

The scope and functionality of IFMS can vary across countries, but sub-systems normally include accounting, budgeting, cash management, debt management and related core treasury systems. In addition to these core sub- systems, some countries have chosen to expand their IFMS with non-core sub-systems such as tax administration, procurement management, asset

management, human resource and pay roll systems, pension and social security systems and other possible areas seen as supporting the core modules (Brown, 2008). The scale of IFMS may also vary and be limited to specific country-level institutions such as the Ministry of Finance. However, IFMS is generally meant to be used as a common system across government institutions, including in the more ambitious schemes for federal, state and local governments. The integration of IFMS across the board ensures that all users adhere to common standards, rules and procedures, with the view to reducing risks of mismanagement of public resources (GoK, 2000).

Integrated Financial Management System (IFMS) seeks to enhance confidence and credibility of the budget through greater comprehensiveness and transparency of information. They seek to improve budget planning and execution by providing timely and accurate data for budget management and decision making. IFMS allow a more standardized and realistic budget formulation across government, while promoting better control over budget execution through the full integration of budget execution data. They also allow for the decentralization of financial functions and processes under the overall control of The National Treasury to enhance financial discipline and control operating costs by reducing administrative tasks and civil servants' workload (GOK, 2000).

IFMS also seeks to strengthen the efficiency of financial controls by making comprehensive, reliable and timely financial information available to the Auditor General, parliament, investigative and prosecutorial agencies, as they improve accounting, recording and reporting practices through the provision of timely and accurate financial data, a standardized integrated financial management reporting system and an upgraded computerized accounting system. When

they work well, they make bank reconciliation automatic and allow a closer monitoring of outstanding bills and cash in bank accounts (Cho, 2003).

The scale of the IFMS will also vary depending on whether its operation is limited to selected central-level institutions, such as the finance ministry and treasury, or is implemented more broadly, to include line ministries, their spending agencies, and even regional and local governments and municipalities. These variations will have implications far beyond the cost of hardware and software installation (Casals et al., 2004). (Diamond and Khemani,2008) further mention that all manner of reports can be generated; balance sheets, sources and uses of funds, cost reports, returns on investment, aging of receivables and payables, cash flow projections, budget variances, and performance reports of all types. Some systems have libraries consisting of hundreds of standard reports. Managers can use this information for a variety of purposes; to plan and formulate budgets; examine results against budgets and plans; manage cash balances; track the status of debts and receivables; monitor the use of fixed assets; monitor the performance of specific departments or units; and make revisions and adjustments as necessary, to name a few. Reports can also be tailored to meet the reporting requirements set by external agencies and international institutions like the International Monetary Fund (IMF).

In Kenya the National Treasury introduced IFMIS as a PFM reform initiative aimed at automating and streamlining Governments financial management processes and procedures (Njenga, 2013). The continued efforts of proper management of public funds have led to the need for the introduction of an IFMIS system in the County Governments in the country (World Bank, 2014). Initially, the implementation was done correctly in some institutions for example in the Central bank but this has not been met with resounding success in the ministries and has not attained most of the intended objectives. The implementation of such a project has proved to be a

very demanding undertaking and has not been met with resounding success (Karanja&Nganga, 2014).

The Kenyan Government is involved in several projects and there are usually large amounts of funds involved in the projects. To ensure proper management of funds, efficiency and effectiveness in the implementation of the projects is key because of the continued increase in demand for accountability (GoK, 2013).

(World Bank, 2014) most reforms fail not only because of the contents or technical aspects of the reform programs, but because of the human resource capacity and the implementation strategy. The lack of clear government policy for training of staff members also pose a challenge to how effective the systems will be in the management of funds. Politicians are at the heart of management of project funds and are known to benefit largely through lack of accountability and the existence of bureaucratic systems.

PFM intends to introduce internal controls that eliminate loop holes for misuse of the project funds resulting in lack of political commitment in the implementation of IFMIS. From the foregoing lack of ICT infrastructure, government policy and lack of competent personnel can have a negative effect on the performance of a Management Information System and should not be underestimated because they lead to the slow utilization of the system and in some cases failure (Njonzi & Kimande, 2014).

Information technology management is a combination of two branches of study; information technology and management. There are two incarnations to this definition. One implies the management of a collection of systems, infrastructure and information that resides on them. Another implies the management of information technologies as a business function. Information

technology is the acquisition, processing, storage and dissemination of vocal pictorial, textual and numeric information by a microelectronics based combination of computing and telecommunications, effective use of information technology contributes to high level of effectiveness in execution of various organization functions (Michale, 2001). Information management system is therefore the combination of information, communication and system components with management approach to ensure effective information processing retrieval and communication in a systematic manner (Goll, 2003). The integration of the information processing and management in a system is perceived as a useful technique of processing and maintaining data, controlling and communicating useful information in the manner that is needed (Casals,2004). The government of Kenya has embraced the use of this tool of management and accountability through the IFMIS to execute effective financial management in the various government ministries and public institutions (Kang'ethe, 2002).

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 (GoK, 2001).

The Strategic Plan for GoK, IFMIS department (2011- 2015) outlines the development of the IFMIS. At present the system is being re-engineered with the aim of improving systems for management and reporting of financial data and information for the Government of Kenya. The IFMIS implementation requirement in Kenya originated from The National Treasury and Economic Planning ICT Master Plan 2001- 2005 that highlighted gaps and weaknesses within the system that was in use (Kwena, 2013). The master plan proposed development of different modules comprising: accounting, revenue management, asset management among others and

establishment of interfaces with the National Bank Payment Information System, Kenya Revenue Authority (KRA) and the Ministry of Labour for payroll and human resource management modules. In collaboration with the Government of Kenya and Kenyan researchers and organizations, The International Development Research Centre (IDRC) team is identifying the social, technological and institutional structures required for successful ICT policy implementation helping develop effective implementation strategies and detailed plans raising IFMIS awareness through workshops and training for senior Government officials developing indicators for measuring the progress and impact of the policy's implementation and documenting the lessons learned from Kenya's policy process to help other African countries grappling with similar challenges (Kanyungi, 2014).

The scale of IFMIS may also vary and be limited to specific country-level institutions such as the Ministry of Finance (Muriuki, 2009). However, IFMIS is generally meant to be used as a common system across government institutions, including in the more ambitious schemes for federal, state and local governments. The integration of IFMIS across the board ensures that all users adhere to common standards, rules and procedures, with the view to reducing risks of mismanagement of public resources.

Several countries, such as New Zealand, Australia and the United Kingdom, undertook significant public sector changes breaking from the traditional bureaucratic model of public administration that involved breaking of the larger units into smaller manageable otherwise equated to devolved units in Kenya today (Sigei, 2013). Governments have started to: constrain public spending, sell off public assets, and outsource many services that were previously provided exclusively by the public sector to private companies, develop public asset performance

measurement, output and outcome-based budgeting and business-type accounting (Waynne, 2008,: Atanda & Jaiyeoba, 2010).

2.1.2 Components of IFMIS and Cash Management

Plan to Budget

This component provides a structured framework for development and deployment of a fully functional, automated planning and budgeting system, aimed at improving accuracy and efficiency in the government's planning and budgeting process. The P2B system is fully operational in all ministries, Departments and agencies and all the 47 County Governments (GoK, 2013).

Plan to budget is a fully integrated process and system that links planning, policy objectives and budget allocation. All government expenditure as charged on the budget of the specific agent of the government and expected revenues are also capture as Appropriations in Aid on the budget. Both expenses and revenues are major components of cash management.

Procure to Pay (P2P)

Section 227 of the Constitution of Kenya provides for establishment of a system for procurement of goods and services that is fair, equitable, transparent, competitive and cost-effective. It also envisages an Act of Parliament that will prescribe a framework within which policies relating to procurement and asset disposal will be implemented (GoK, 2013).

The aim of IFMIS Procure to Pay (P2P) system is to develop an efficient and streamlined procurement and payment system by fully automating the procurement and payment process to increase control and visibility over the entire life-cycle of a procurement transaction, from

procurement planning to payment. The end-to-end P2P automated process that starts at development of procurement plans, to the actual procurement of goods and services, to payment of suppliers for goods or services delivered. P2P is the component of IFMIS that deals with the payments side of cash management.

Revenue to Cash (R2C)

This component is aimed at providing functionalities for collection, recording and classification and reporting of Government revenue. It involves all activities related to revenue and cash management from generation, collection, recording of revenue and distribution of funds to MDAs and Counties.

R2C also facilitates timely reconciliation of bank accounts. This translates to the automation of the following core processes within Government: Recording and reporting for revenues collected by Kenya Revenue Authority (KRA); Collection, recording and reporting for revenues collected directly by MDAs, Counties, among other sources; Recording and reporting for funds disbursed to National and County Governments; Auto bank reconciliations; and Cash flow management in terms of cash forecasting and cash positioning (GoK, 2013). This component of IFMIS affects the revenue side of cash management.

Record to Report (R2R)

This component encompasses all activities that include the updating and maintenance of the general ledger, the reconciliation of sub ledgers to the general ledger and closing of books. It also includes recording, control and reporting on fixed assets (GoK, 2013).

ICT to Support

The main objective of this component is to provide the technical support underpinning effective and efficient automation of all the IFMIS process. ICT to support aims to provide the infrastructure and support required for a fully functional management system (GoK, 2013). Generally IFMIS refers to the use of information and communications technology in financial operations to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements (Casals and Associates, 2004). Hence this component is a basic component of IFMIS.

Communicate to Change (C2C)

This component focuses on change management, capacity enhancement, information generation and dispersion, education and effective communication among IFMIS stakeholders. The key objective of this component is: To develop adequate pool of knowledgeable, skilled and capable public servants that are effectively and efficiently using IFMIS to deliver and execute PFM (Public Finance Management). Key successes in implementation of the change management strategy has been the successful rebranding of IFMIS, frequent information sharing with IFMIS users in Ministries, Departments and Agencies (MDAs) and Counties and the establishment of the IFMIS Academy for building capacity in the use of the system (GoK, 2013).

Generally, the objective of implementing IFMIS is to increase the effectiveness and efficiency of state financial management and facilitate the adoption of modern public expenditure practices in keeping with international standards and benchmarks (Chumba, 2014). The design and functionality of government IFMIS is also critically different from that of private enterprise systems. Because governments are not driven by profit but rather by measures of accountability, financial management information systems for government must be designed to ensure

compliance with budget laws, other public finance rules and restrictions, and an entirely different set of accounting rules and reporting requirements. Moreover, they must also be designed to support a multitude of distinctly public sector-oriented functions and organizational arrangements. Governments big and small undertake a vast number of transactions on an ongoing basis, requiring powerful, resilient, dependable systems to handle the information flows. These systems must be able to handle and communicate all the financial movements for the complex structure made up of line ministries, spending agencies, regional and local governments as well as other government clients.

Much of the work in automating PFM systems has focused on implementing an integrated financial management information system, including general ledger, accounts payable, accounts receivable, procurement, payroll, asset management, debt management, budgeting, etc. This approach might be too large to implement effectively, in a timely fashion, or to achieve results and has in many countries hampered overall IFMIS reliability (Asselin & Srivastava, 2009). It is better to think of automating some core part of the system, such as general ledger, and accounts payable and receivable, with an eye to adding-on or replacing the system within a few years. Other points in this regard were to start from where you are in terms of PFM system development, rather than from where you want to be and also to recognize that not everything may need to be automated. As IFMIS systems evolve, the needs will change, so the scope of the automation can be expanded. Given the rapid change in technology, it may not be feasible to plan all of these potential needs or IT options in advance (Bartel, 2009).

The use of IT is vital and must be protected from any form of disruption or loss of service and so it is essential that the availability, integrity and confidentiality of the IT system and data are maintained at a level that is appropriate for IFMIS needs (Casals, 2009). The IT security policy

should be based on several international accepted standards such as the International Organisation for Standadization (ISO) 17799, and Control Objectives for Information Technology (CobIT) and best practices developed by the professional organization like the International Federation of Accountants (IFAC), International Organisation for Standadization (ISO), Information Systems Audit and Control Association (ISACA), Institute of Internal Audit (IIA) (Peterson et al., 2008). The CobIT is a framework for IT governance and control developed by the information System Audit and Control Association (ISACA) which has gained wide acceptance internationally. The purpose of the IT Security Policy should be to establish a framework for implementing security and control measures of the computerized information systems in IFMIS. Recognizing that information provided by the computerized systems is key to the operation of the IFMIS business, it is essential that the information and the infrastructure which supports it is secure from destruction, corruption, unauthorized access and breach of confidentiality whether accidental or deliberate (Embretson & Hershberger, 2009).

Bartel (2009) states that IFMIS security has often been compromised because the under mentioned Information security management basic objectives which must be maintained at all times have always been compromised:

Confidentiality- ensuring that the IFMIS data is not disclosed or revealed to un-authorized person.

Integrity- ensuring consistency of the data, i.e. preventing creation, alteration, or destruction of data.

Availability- ensuring that the legitimate users are not denied authorized access to resources such as information, computing and communication resources when required.

Authorized use- ensuring that the IT resources are not used by un- authorized persons.

Non-reputation- ensuring that one does not deny or alter the information sent across the IFMIS network. When talking about security, IFMIS technical policies in form of usernames and password should be considered.

2.1.3 System Theory

In Systems theory (Wang, 2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating (due to feedback) in the system can be called information. In other words, it can be said that information in this sense is something potentially perceived as representation, though not created or presented for that purpose.

A system is a set of two or more elements where: the behavior of each element has an effect on the behavior of the whole; the behavior of the elements and their effects on the whole are interdependent; and while subgroups of the elements all have an effect on the behavior of the whole, none has an independent effect on it (Skyttner, 1996). In other words, a system comprises of subsystems whose inter-relationships and interdependence move toward equilibrium within the larger system. (Martinelli, 2001; Steele, 2003: 2).

Kang'ethe (2002) states that a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives. The writer further observes the need to have control elements to ensure that the process gives the desired level of out-put and avoid or reduce wastage. The need for efficiency and effectiveness therefore brings forth another need of ensuring harmony and synergy between the human resource as the core resource that controls other resources on the one hand and the other tools of trade, in particular modern ICT on the other hand so as to realize the objectives of office secretarial management. There is

therefore the clear need to understand the perception of human resource and areas with potential for conflict in the course of interaction between the human resource and modern ICT. When computer and communication technologies are combined, the result is information technology systems, or "InfoTech". Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of information technology as a whole, it is noted that the use of computers and information are associated.

Emerging Information and Communication Technology (ICT) can play an important role in fighting corruption in public finance systems by promoting greater comprehensiveness and transparency of information across government institutions. As a result, the introduction of IFMIS has been promoted as a core component of public financial reforms in many developing countries. The IFMIS system is made up of different components that work interdependently to ensure that proper financial management and cash management is achieved in the county government of Kisumu. Based on the discussion on the components of the IFMIS as a system, each component affects cash management and forms part of the proxy variables that will be used to measure cash management.

2.1.4 Resource Based View Theory

Resource Based Theory argues that a firm has the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, imperfectly imitable and non-substitutable (Berrchicci, 2013). The supporters of these arguments argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it (Vogel & Guttel, 2013). The goal of an organization is to ensure it has access to and control of valuable resources by developing and securing all the

relevant resources either internally or externally. If a firm possess critical resources that have strategic value, it is better to retain the activity in house (Ullrich, 2013). On the contrary, if the strategic value of target activities is low and no internal resources are available to perform such activities, it is beneficial for the company to outsource them. For the sustainable competitive advantages, firms are forced to rely on a multitude of outside supplier for parts, software, knowledge and sales and in doing so gain access to valuable resources and external capabilities (Gariga & Mele, 2013).

The source of an organization's competitive advantage lies mainly in how it exploits its distinctive internal resources and competencies, by setting strategic objectives based on what they enable it to (Gariga & Mele, 2013). The resource-based approach starts with the organization's strengths and seeks an environment that will enable it exploit them by changing environments to suit what it does best rather than changing what it does best to fit the environment (Kehoe & Wright, 2013). One of the key insights of the resource-based view is that not all organizational resources are a potential source of competitive advantage (Hitt, 2011). The above theory relates to human resource capacity on performance of Integrated Financial Management Information System implementation. The IFMIS system can achieve the desired results if the human resource using it are properly trained and sensitized on the importance and the benefits to be experienced from using the system and moving from the previous manual system to achieve efficiency in cash management.

2.1.5 e-Technology Perspective Theory

e-Technology lacks an overarching definition and encompasses a wide range of business activities. O'Neil& Perez (2013) state that e- procurement remains a first generation concept aimed at buyers, which should progress into e- sourcing and ultimately into e-collaboration. e-

collaboration allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Saurin & Henringson, 2013). This facilitates the so-called frictionless procurement paradigm (Brousseau, 2000). The internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries (Hsand et al, 2013). (Janita & Miranda, 2013) the benefits of IFMIS in a public setting are significant (Holland & Kaplan, 2013). Indeed it has been claimed that ICT has become the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that allows buyers and suppliers to work to optimum and mutually beneficial prices and schedules (Foss & Kruesden, 2013).

Usually organizations or governments adopt IFIMS systems to manage the purchase of low critical products and services (Lisci et al., 2013). The transition to IFMIS calls for strategic adaptation and well laid infrastructure. It is one strategy, though, that requires much organizational change (Janita & Miranda, 2013). The above theory relates to the Information Communication Technology infrastructure on performance of Integrated Financial Management Information System. ICT is one of the components of IFMIS that affects cash management since it forms the platform under which the IFMIS system operates.

2.1.6 Last Planner Theory

The Last Planner theory of project management and implementation has been developed by Ballard (Korinek & Mendoza, 2013). At first sight, Last Planner deviates from the conventional project management doctrine in terms of planning, execution and control. The term Last Planner refers to the hierarchical chain of planners, where the last planner acts at the interface to execution. Thus, this method concentrates on the detailed planning just before

execution, rather than the whole planning process. In looking ahead at planning, the prerequisites of upcoming assignments are actively made ready, in other words, they are transferred to the Can category this, in fact, is a pull system (Chettiparamp, 2013) that is instrumental in ensuring that all the prerequisites are available for the assignments. (Anca, 2013; Kerzner, 2013) states in a study on Project management: a systems approach to planning, scheduling, and controlling finds out that Project management goes beyond managing the technical aspects of implementation.

Theoretically interpreting the execution phase in Last Planner is similar to the language/action perspective model in that communication is a two-way process, and commitment is created for the realization of the tasks within the planning conversation where plans prepared by one crew are understood as promises to others and through the obligation to report on the completion of the task control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes (Cope & James, 2013).

The above theory relates to the influence of implementation strategy on performance of IFMIS implementation in public sector. Implementation strategy is one of the independent variables that are being studied in this study so as to observe if indeed the implementation strategy used by the government has had an effect on the cash management of Kisumu County Government.

2.1.7 Weick's Model of Organizing

One of the sophisticated theories of organizational structure is Weick's model theory of organizing. It takes into account the high- stressed fast-paced nature of today's business and reduces equivocality (Czarniawska, 2014). Equivocality boils down to any lack of productivity

due to an employee, on any level, having to check with superiors which is brought about by bureaucracy and unaligned organizational structure which greatly affect the management style of the organization (Lecose, 2013). In the Weick's model, there is an information system, which includes frequently and sometimes previously tackled issues (Langley, Smallman, Tsoukas& Van de Ven, 2013). Employees have access to this information and use it to combat any ambivalence or inertia that might hinder making business decisions (Feldmann, 2013). The decisiveness gained by using the information system leads to higher productivity due to ease with which structures and policies can be modified to suit the prevailing or anticipated needs. The Weick's model theory of organizing relates to the government policy on performance of Integrated Financial Management Information System.

2.2 Criticism of Theories

There are many factors that lead to IFMIS projects delay and incompletion in various countries as well as in Kenya (Maake, 2007). The three most significant factors that adversely impact implementation of IFMIS projects in public sector include; competence of personnel, legal framework and ICT infrastructure. South Africa faces significant human capital development challenges in building the capacity required by an IFMIS (Maake, 2007). The shortage of skilled ICT people in the South Africa is exacerbated by the emigration of highly skilled ICT personnel and other professionals to developed countries, and from the public to the private sector (Farelo & Morris, 2006). Chene, (2009)stated that capacity building is a major factor affecting the success of IFMIS implementation, especially in developing countries. Further, the shortage of skilled ICT people in the country is exacerbated by the emigration of highly skilled ICT personnel and other professionals to developed countries, and from the public to the private sector (Farelo & Morris, 2006). Imran (2007) puts forward that at the national level, a low level

of economic development, poor infrastructure and political unrest are inhibitors of public sector ICT progress. At a base level, access by individuals and organizations to ICT tools and IT-related education is necessary for e-government to be feasible.

The Resource Based View (RBV) theory has been extensively criticized. Some of the critiques have been leveled indirectly by suggesting amendments to the theory (Foss, Klein, Kor, & Mahoney, 2008; Makadok, 2001). There are also papers critiquing the RBV directly (Foss & Knudsen, 2003; Spender, 2006). In this respect Priem & Butler's (2001) critiques and Barney's (2001) responses are widely-known. The critiques are particularly valuable for they suggest where improvements might be made. Among the areas of improvements are: The RBV has no managerial implications; the RBV's applicability is too limited, sustained competitive advantage is not achievable. The value of a resource is too indeterminate to provide for useful theory; and the definition of resource is unworkable.

2.3 Empirical Review

2.3.1 IFMIS Implementation and Cash Management

In a research conducted by Mobegi (2009), he found out that 61% of the ministry staff believed that implementation of IFMIS was way behind schedule while 33% believed that it was on course. 83% believed that IFMIS was successful while 11% believed that it was not successful. 52% believed that transparency had been achieved while 62% believe that IFMIS had improved economic governance. 47% believed that it had reduced corruption while 78% believed that IFMIS provided sufficient information for decision making. IFMIS has been implemented in various countries, some of which have failed and others have succeeded. These cases can be used to show what can be changed and manners in how the systems can be improved.

Musee (2011) carried out a study on the factors affecting effective implementation of integrated financial management information systems (IFMIS) in government ministries in Kenya. The study covered 42 Ministries where a sample of 32 respondents involved in the use of the Integrated Financial Management Information System was surveyed. According to the study, 86% of the staff in charge of IFMIS in all ministries of government was male. The study established that 73% of the users felt that resistance and sabotage affected to 'greater extent' the effective use of the system. Staff resistance resulted from different reasons hereby termed to as the aspects. Understanding these aspects of resistance makes it easier when dealing with such resistance.

Miheso (2013) carried out a study on the adoption of integrated financial management information system (IFMIS) by the National government in Kenya. The study sought to establish the challenges facing the adoption of IFMIS in the national government in Kenya. Training of IFMIS had been conducted to 100% of respondents. The same was also seen with training materials where 98% reported provision of training materials.

There are various studies that have indicated that the IFMIS system in Malawi was a success and relatively well designed. In principle, it provides a good starting point for a sound management of public finances (Rakner et al., 2004). For example, the World Bank's (2003) states: "When compared to most developing countries, Malawi has a good legal and institutional framework for public sector financial management and accountability. Therefore, one could expect that the formal legal and institutional PFM framework in Malawi should provide in principle for effective fiscal and expenditure planning, budget preparation, execution, and control in line with the priorities set in the Malawi Poverty Reduction Strategy Paper (MPRSP).

Goonetilleke (2012) carried out a study on the identification of best practices for software application and outsourcing success in public sector organizations in Sri Lanka. The data was collected from the survey of fourteen (14) organizations based on thirty (30) projects and two hundred and twelve (212) system users from the public sector organizations. The users were included from the all the categories of the organizations such as top, middle and junior staff members. The status of those projects include success, failure, partial failure and in developing stage. The study identified key issues in application software life cycle. The research has identified success, failure factors and software outsourcing success from the literature survey to design a conceptual model and introduced the best practices for the Sri Lankan context. The model was tested by identifying the relationship between success and prevention of failure factors with outsourcing success. This study will help the management and the Information Technology staff to identify the failure factors and take the necessary precautions using Best Practices. Hence, this study is timely and relevant for the public sector organizations in Sri Lanka as they are working towards the e-Government.

Nixon (2009) carried out a study on the e-Government artifact in the context of a developing Country: Towards a nomadic Framework. According to findings of the study, the realization of e government models such as government to government (G2G), government to business (G2B) and government to customer (G2C) would depend on their conceptualization based on the digital content. There should be a shift in the mindset of stakeholders in developing countries on how to conceptualize the focus of e-government. The current focus is dominated by economic rationalization; however, when embracing the concept of community networks and other counter networks, the need to embrace political rationalization of e-government is clearly paramount.

The dependence relationship on the central government puts to question a well-articulated meaning of e-government relevant to local context. Thus the central government's intention is to use ICT to enhance a paternalistic relationship with the local government agencies. This is propagated in the form of certain meanings and roles of e-government propagated by the technocrats from central government to achieve their professional objectives; which may be in opposition to the personal agendas of political officers, largely unclear of the role of e-government. The resulting paternalistic relationship between central government and the semi-autonomous local government agencies is likely to enhance the meaning of e-government to be within a managerial discourse. The research recognizes the speculation around these consequences, given the assumption that was highlighted earlier. At both the local and national levels, lack of resources impairs the quick realization of e-government objectives, as well as the ambiguity of emerging meanings of e-government.

2.3.2 IFMIS Efficiency and Cash Management

Nyabwanga (2011) asserts that cash management is the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little (as cited in Ross et al., 2008) and as stressed by Atrill (2006), there is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold. Setting up of cash balance policy ensures prudent cash budgeting and investment of surplus cash (Kwame, 2007). This finding agrees with the findings by (Kotut, 2003) who established that cash budgeting is useful in planning for shortage and surplus of cash and has an effect on the financial performance of the firms. The assertion by

(Ross et al., 2008) that reducing the time cash is tied up in the operating cycle improves a business's profitability and market value furthers the significance of efficient cash management practices in improving business performance.

Njonde and Kimanzi (2014) carried out a study on Effect of integrated financial management information system on performance of public sector using the case of Nairobi county government, the study found out that 68% of the respondents agreed that accuracy and speed were some of the benefits realized from using the IFMIS. 34% recorded no benefits realized on use of the system. 84% of the respondents from that study indicated that budgeting has improved by use of IFMIS and that there was timely preparation of the budget

2.3.3 IFMIS Reliability and Cash Management

Miheso (2013) in his study on adoption of integrated financial management information systems by the National government concluded that over 90% have been informed how IFMIS will affect their current work practices and 95% say that IFMIS is stable with little or no down time. 83% are sure that IFMIS processes match with their manual processes and 73% said that all activities in the department are run within the IFMIS system. 23% respondents said that the exchequer budget release of funds on the IFMIS does not coincide with the manual funds release process. 25% did not agree that all payments approvals are only carried out in IFMIS. 45% indicated that purchase orders were not exclusively through IFMIS. 78% are sure that Local Purchase Orders (LPO's) and invoices were manually captured into the IFMIS system.

Peterson (2011) undertook a study on Reforming Public Financial Management in Africa. Reforms succeed when they are aligned with the four drivers of public sector reform: context, ownership, purpose and strategy. Public financial management is a core function of the state and its sovereignty and it is not an appropriate arena for foreign aid intervention, governments must

fully own it, which was a key to the success of Ethiopia's reform. The purpose of PFM reform should be building stable and sustainable 'plateaus' of PFM that are appropriate to the local context and they should not be about risky and irrelevant 'summits' of international best practice. Plateaus not summits are needed in Africa. Finally, a strategy of reform has four processes: recognize, improve, change, and sustain. Ethiopia succeeded because it implemented a recognize-improve-sustain strategy to support the government policy of rapid decentralization. All too often, much of PFM reform in Africa is about the change task and climbing financial summits.

Nyabuto (2009) undertook a Survey of the Extent of Implementation of Integrated Financial Management Information System (IFMIS) as a Tool for Sustainable Financial Management in Government. The study was carried out using questionnaires which were administered to forty (40) accountants in 40 Ministries. The data was analyzed using preliminary analysis procedures that included percentages and frequencies. It was through such a descriptive survey that the study established that IFMIS implementation was behind schedule. The results revealed that there was resistance in the Ministries for the use of IFMIS. This implies that for IFMIS to succeed, such resistance must be overcome. Possible reasons for resistance included lack of training and fear of the unknown. Despite the resistance, it was found out that IFMIS had succeeded though still implementation was behind schedule. Consequently the government of Kenya has immensely benefited from the advantages of a computerized accounting system which is more reliable than the former stand-alone legacy systems.

Spriano (2013) carried out a study on the successes and failures of e-Government projects in Developing Countries: a case study of Zambia. The study used an online survey based on a modified version of the Heeks Factor Model that focuses on soft human aspects known to be

critical in the implementation of e-government projects. Data was collected from 121 respondents from Zambia between the month of September and October 2012. The results of the study indicted a rating score of 55.1 based on Heeks 100 point scale implying a mighty fail totally or partially. In addition the awareness of the e-government projects was found to be inadequate.

2.3.4 Cash Management

Muigai (2012) carried out a study on the effect of integrated financial management information systems on the financial management of public sector in Kenya: a case of the Kenyan ministries. The study covered 42 government Ministries in Kenya where 30 accountants involved in the use of Integrated Financial Management Information Systems were surveyed. Primary data was collected using questionnaires and secondary data was obtained from review of economic survey and statistical abstract. The study adopted a cross-sectional survey design which investigated the effect of integrated financial management information systems on financial management of public sector in Kenya for a period of 10 years (1997-2000 and 2005 - 2010).

The study employed the ordinary least square method to examine the relationship between nominated macroeconomic variables which are proxies to public sector financial management and IFMIS. The governments have consistently failed in the management of Inflation, Government expenditure and Government revenue. There was also the issue of investments which though had the right sign but with almost an insignificant positive value in the two periods. After IFMIS public sector appear to perform better than before IFMIS in these respects and also better in terms of the contributions of government revenue and government expenditure. Expectedly Gross Domestic Product Per Capita (GDPPC) had the highest contribution and also

with the right sign. The log-log model established the trend of incremental growth for the periods under study and found a very disturbing trend for the economy under study.

The computation of the GINI Index placed the period before IFMIS below the period after IFMIS which indicated the state of income distribution, human development and standard of living in Kenya. These results agree with the numbers representing the state of economic development of the economy under study for the two periods as computed by international organizations. The study found out that IFMIS has greatly contributed to improvement in financial management in Kenya. The study recommended that IFMIS should therefore be rolled out to all public sector departments in the country.

Chebet (2013) carried out a study on the critical success factors in the implementation of the re-engineered integrated financial management information system in government ministries, Kenya. The findings indicated that 54 respondents were targeted from which 45 of them completed and returned the questionnaires resulting in a response rate of 83.3%. This response rate was representative and excellent to make conclusions for the study. The findings showed that respondents had worked long enough in the ministries to have an intricate knowledge and understanding of the ministry and how IFMIS works. In addition, the study found that the majority of the departments which participated in the study actively participated in the re-engineered IFMIS implementation process. Most of the employees in the ministry were satisfied with the installation of the re-engineered IFMIS. The study also found that most state corporations fast adopting IFMIS to enhance their financial performance.

Generally, the objective of implementing IFMIS is to increase the effectiveness and efficiency of state financial management and facilitate the adoption of modern public expenditure practices in keeping with international standards and benchmarks (Chumba, 2014).

2.4 Research (Knowledge) Gap

A study by Karanja and Nyambura (2014) concluded that properly functioning IFMIS should provide information for budget planning, analysis and reporting. The study also found out that IFMIS also facilitate preparation of financial statements and provide a complete audit trail in order to facilitate audits. Another study by Chuma in 2014 on how IFMIS affects cash management in the District treasury concluded that a fully functioning IFMIS can improve governance by providing real-time financial information used to administer programs effectively, assist in the budget formulation process, and also manage resources. A study by Njonde and Kimanzi, (2014) concluded that there was a relationship between IFMIS and financial reporting, budgeting, internal control and government projects as 72.4% of the effectiveness of IFMIS was accounted for by the study's independent variables.

The above studies provide conclusions on research done on IFMIS in different environments and using various variables. This research will seek to fill the existing gap by establishing whether IFMIS has had the same effect on cash management in the county governments by studying three independent variables that is implementation strategy, reliability and efficiency of IFMIS on the Cash Management.

CHAPTER THREE

CONCEPTUAL FRAMEWORK AND METHODOLOGY

3.0 Introduction

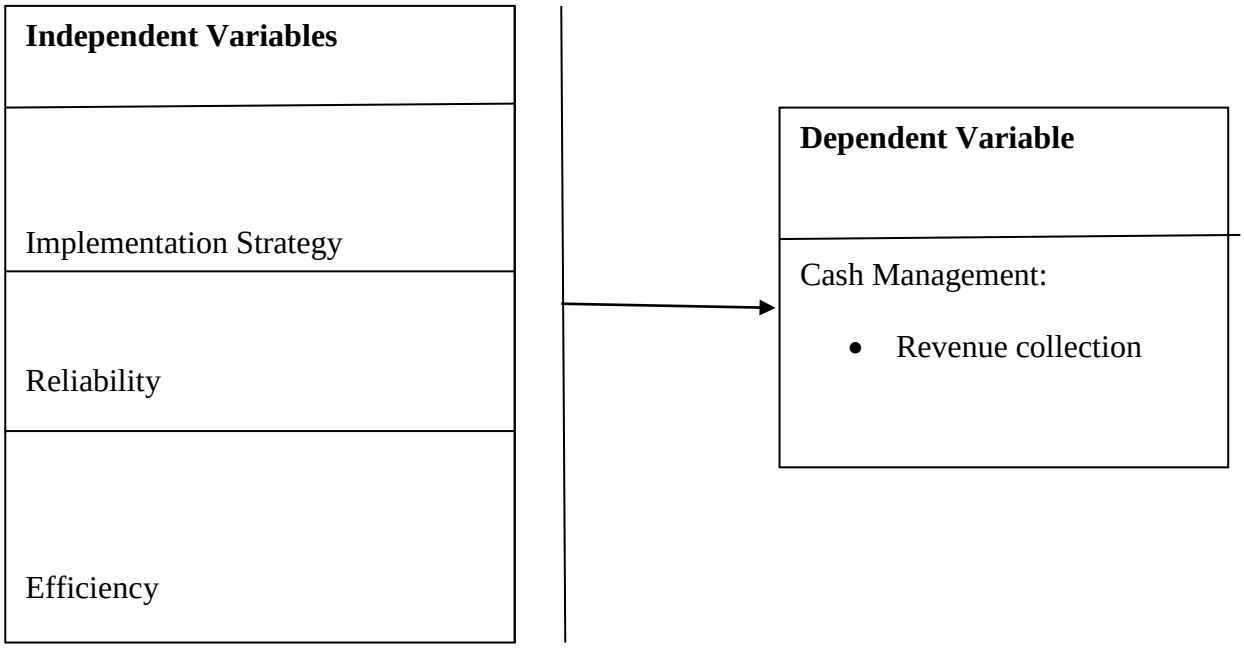
This Chapter presents the conceptual framework and the methodology used in the study. The conceptual framework focuses on both the interrelationship of variables (or theoretical framework) and the data analysis procedures (or empirical/analytical framework). The governing premises of the study include the work of Korinek & Mendoza (2013) and of Wang (2005). The methodology deals with the data concerns including research design, target population, sampling and data collection procedures.

3.1 Conceptual Framework

3.1.1 Theoretical Framework

Figure 3.1 presents the interrelationship of the variables used in the study. The dependent variable is cash management. The independent variables are implementation strategy, reliability of the IFMIS system, and efficiency of the IFMIS.

Figure 3.1 Theoretical Framework of Cash Management



Source: Own Formulation Based on Systems Theory (Wang, 2005)

Explanation and Operationalization of Variables

IFMIS Efficiency

It is important to minimize the interval between the time when cash is received and the time it is available for carrying out expenditure programmes. Revenues need to be processed promptly and made available for use. The County Government collects its revenues through revenue finance officers in the County Treasury department. The County Treasury should therefore focus its efforts on monitoring payments and reporting results. IFMIS provides an avenue for improved efficiency in collecting, recording, classifying and reporting of revenues. The proxy variable that was used to measure efficiency is the number of accurate and timely reports that are produced by

the IFMIS. IFMIS should provide efficiency in producing timely monthly, quarterly and yearly reports.

IFMIS Reliability

IFMIS seeks to strengthen the reliability of financial controls by making comprehensive, reliable and timely financial information available to the users of the system for decision making. The system aims to improve accounting, recording and reporting practices through the provision of timely and accurate financial data on various aspects of government cash inflows and out flows. Some of the controls introduced by the system include proper segregation of duties, a clear audit trail, ministries, departments and agencies have to adhere to the set budget limits and follow their procurement plans. These controls financial statements and reports produced by the system present a true position of the government expenditure. IFMIS operates using internet connectivity. The system should operate from a secure network to ensure security of data being processed. The down time should also be minimized so as to ensure the system is reliable and accessible by the user every time they need it. The proxy variable used to measure IFMIS reliability was the down time IFMIS.

IFMIS Implementation Strategy

GoK uses the IFMIS system as the sole accounting system for all government entities and any accounting done outside the system is considered irregular. The government implementation strategy on IFMIS project on ministries, department, agencies (MDAs) and counties also has an effect on the success or failure of the system. The way in which the move from the previously manual system to the compulsory IFMIS system is rolled out may affect the way it is perceived and accepted by the new users. The number of trainings done prior to the roll out of the system and the availability of infrastructure for using the system are also likely to affect the cash

management of the organization. As with any change in an organization some users of the system may be resistant to the introduction and therefore a lot of sensitization and training is needed so that the desired results in this case improved cash management is achieved. For the purpose of this study the proxy variable used to measure IFMIS implementation was number of trainings done between July 2014 and June 2015 when the system was rolled out in the County.

Cash Management

The National and County Treasuries are responsible for the efficient, effective and ethical use and ma nagement of public resources. Good cash management is an important component of this responsibility. The sheer size of the Government's cash flow, as well as the need to match in-flow to out-flow, makes good cash management a necessity. The components of cash management include Revenue management. A fully automated system results in improved revenue collection, control and recording and auto reconciliation of bank and cash management. Efficient financial management reduces operational risk and fraud. For the purpose of this study the proxy variable used to measure cash management was amount of revenue collected.

3.1.2 Empirical (Analytical) Framework

The study employed descriptive analysis method. Graphs and charts were to explore the nature of the results of the variables under study.

3.2 Methodology

3.2.1 Research Design

Kothari (2004) observed that research design is a blue print which facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible hence yielding maximum information with minimal expenditure of effort, time and money. This study

will use descriptive research design. This design refers to a set of methods and procedures that describe variables. It involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data. Descriptive studies portray the variables by answering who, what, and how questions (Bernard, 2011). The study will be descriptive in nature as it is deemed appropriate because it involve use of written questionnaires administered to respondents. Baker (2009) recommends descriptive design as it allows the researcher to describe record, analyze and report conditions that exit or existed. Since this study seeks to establish the factors of performance of Integrated Financial Management Information Systems in the public sector in Kenya, descriptive research design is the best design. This had the advantage of providing an in-depth investigation of the problem under study.

3.2.2 Target Population

Kothari (2004) described population as the entire group of individuals or items under consideration in any field of inquiry and have a common attribute.

The target population was staff from the Kisumu County Treasury. This population was chosen because it consists of members of staff who use the IFMIS system and who from the definition of cash management are involved in the cash management process. They included the accountants, internal auditors and finance officers, chief officers and executive committee Member. There are 75 officers who use the IFMIS system and they formed the target population for this study.

Table 3.2 Target Population

Population Category	Target Population
Accountants	50
Finance Officers	10
Internal Auditors	7
Budget Officers	5
Chief Officers	2
County Executive Committee Member	1
Total	75

Source: Research Data

3.2.3 Sample and Sampling Techniques

A sample size is a set of observations drawn from a population by a defined procedure (Creswell, 2003). For the purpose of this study a census of the entire target population will be used.

Table 3.3 Target Sample

Population Category	Target Sample
Accountants	50
Finance Officers	10
Internal Auditors	7
Budget Officers	5
Chief Officers	2
County Executive Committee Member	1
Total	75

Source: Research Data

3.2.4 Data Collection Procedures

The study relied on primary data. The researcher used questionnaire as the research instrument. The study used questionnaire developed for generating information on key variables of interest from the targeted respondents in the study. The research also undertook desk review of existing information about the study areas and collect qualitative data through in-depth interview from respondents who are conversant with the subject through various interactions or experiences. These respondents are specifically targeted for their ability to provide pertinent information to the study.

A self-administered questionnaire was dropped to each respondent and picked later. The questionnaire consists of both open ended and closed ended questions. The questionnaire was divided into two parts covering demographic variables and study variables.

3.3 Data Analysis

Kothari (2009) argues that data collected has to be processed, analyzed and presented in accordance with the outlines laid down for the purpose at the time of developing the research plan**.** The collected data was analyzed qualitatively. Descriptive research analysis was applied. Set of data was described using percentage and presented using tables, charts and graphs to show the effect and influence of the independent variables on the dependent variables.

Descriptive statistics was used to analyse demographic data. This included computation of percentages and means. The purpose of descriptive analysis of data was to determine the characteristics of the sample.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF STUDY FINDINGS

4.1 Introduction

This chapter is a presentation of results and findings obtained from field responses and data is broken into two parts. The chapter applies descriptive statistics using graphs and charts to explore the nature of the results of the variables under study.

4.2 Response Rate

The findings of the study indicated in Table 4.1 below presents the response of the questionnaires that were administered. From the data collected, out of the 75 questionnaires administered, 68 questionnaires were fully completed and returned making a response percent of 90.67%. This percentage concurs with Mugenda and Mugenda (2003) who argues that for generalization a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent, thus 90.67% was excellent for an analysis. This high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires. The response rate was therefore adequate for the study to make relevant conclusions basing on the responses.

Table 4.1: Response Rate

Population Category	Distributed questionnaires	Dully filled and returned questionnaires	Percentage of returned questionnaires
Accountants	50	47	94.00
Finance Officers	10	8	80.00
Internal Auditors	7	6	85.71
Budget Officers	5	4	80.00
Chief Officers	2	2	100.00
County Executive Committee Member	1	1	100.00
Response rate	75	68	90.67

Source: Research data

4.3 Reliability Analysis

Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. Cronbach's alpha was calculated by application of SPSS version 20 for reliability analysis. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted at 0.5 significance level from multi-point formatted questionnaires or scales.

The questionnaires used likert scale items. For reliability analysis Cronbach's alpha was calculated by application of SPSS. The value of the alpha coefficient ranges from 0 to 1 and is used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (rating scale: 0 = poor, 1

= excellent). A higher value shows a more reliable generated scale. Cooper & Schindler (2008) have indicated 0.7 to be an acceptable reliability coefficient.

Table 4.2 shows that reliability of IFMIS had the highest reliability (α=0.788) followed by implementation Strategy (α=0.749), and efficiency of IFMIS (α = 0.727). This illustrates that all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.7 and therefore the instrument was reliable for data collection (Mugenda & Mugenda, 2008).

Table 4.2: Reliability Coefficients

Variable	Cronbach's Alpha
Implementation Strategy	.749
Efficiency of IFMIS	.727
Reliability of IFMIS	.788

Source: Research data

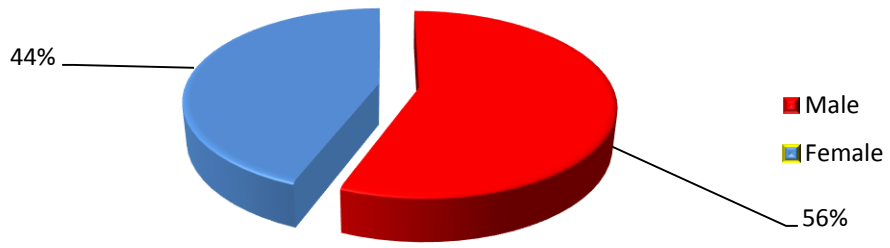
4.4 Demographic Characteristics of the Respondents

The study sought to find out the demographic information of the respondents which included gender, age, the level of education and the number of years worked. This was important since it forms foundation under which the study can fairly adopt in coming up with conclusions. The analysis relied on this information of the respondents so as to categorize the different results according to their acquaintance and responses.

4.4.1 Gender Distribution

The study sought to determine the gender distribution of the respondents in order to establish if there is gender balance in the positions indicated. Figure 4.1 represents the summary of findings.

Figure 4.1 Respondents Gender Distribution

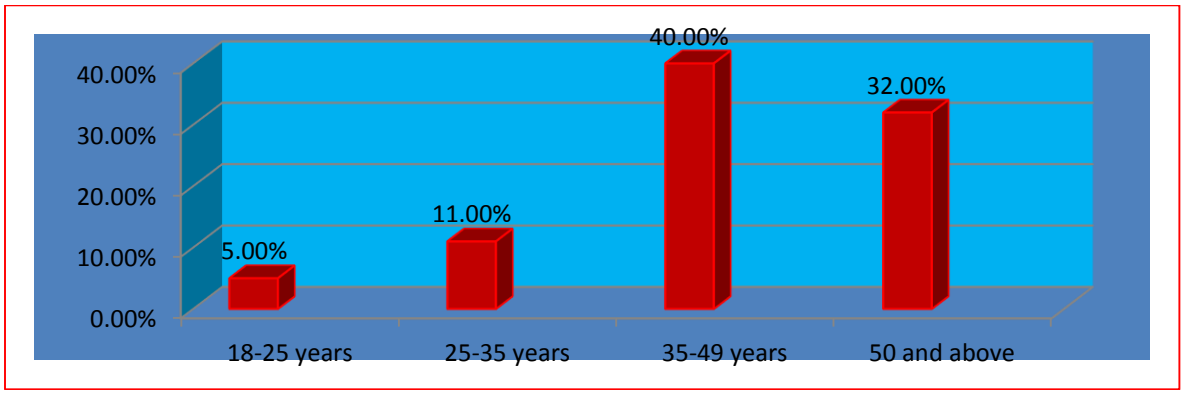


From the findings as indicated in Figure 4.1, majority (56%) were male respondents with (44%) being females respondents. This implies there were more males than female respondents though with less disparity meaning that there is gender balance among the employees. Shaw and Carter (2007) found that organizations with gender balance were motivated to perform better towards organization goal as women and men compete favorably to deliver on their assignments**.**

4.4.2 Age Distribution

The study established the respondent's age distribution. The findings were as indicated in Figure 4.2.

Figure 4.2 Age Distribution of the respondents



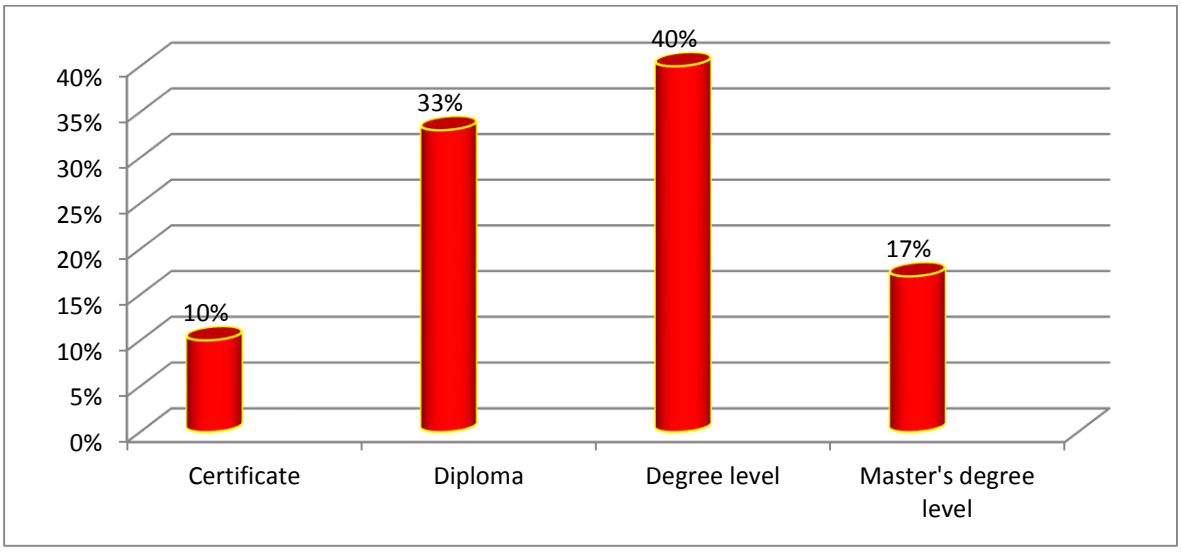
From the findings in Figure 4.2, majority (40%) indicated that they ranged between 35-49 years, followed by those who indicated that they are 51 and above years with few (11%) and (5%) and

indicating that they were 25-35 years and 18-25 years respectively. This implies that majority of the respondents were at their maturity stage and therefore able to handle their roles responsibly. The findings support the move by the departments giving emphasis on maturity and experience. Haugh and Kitson (2007) found that age is associated with experience and responsibility at work place.

4.4.3 Level of Education

Figure 4.3 presents the findings on the level of education. The researcher found it important to determine the respondents' level of education in order to ascertain if they were well equipped with the necessary knowledge and skills to adequately use the IFMIS system.

Figure 4.3 Level of Education



From the study findings majority (40%) indicated that they had university first degree, followed by those who indicated that they had diploma at (33%) with few (17%) indicating that they had master's degree and (7%) certificate level as their highest level of education. Katz, Lazer, Arrow & Contractor (2004) associated the education level of entrepreneurs with business success with findings that, those with higher levels of education are more successful because higher education

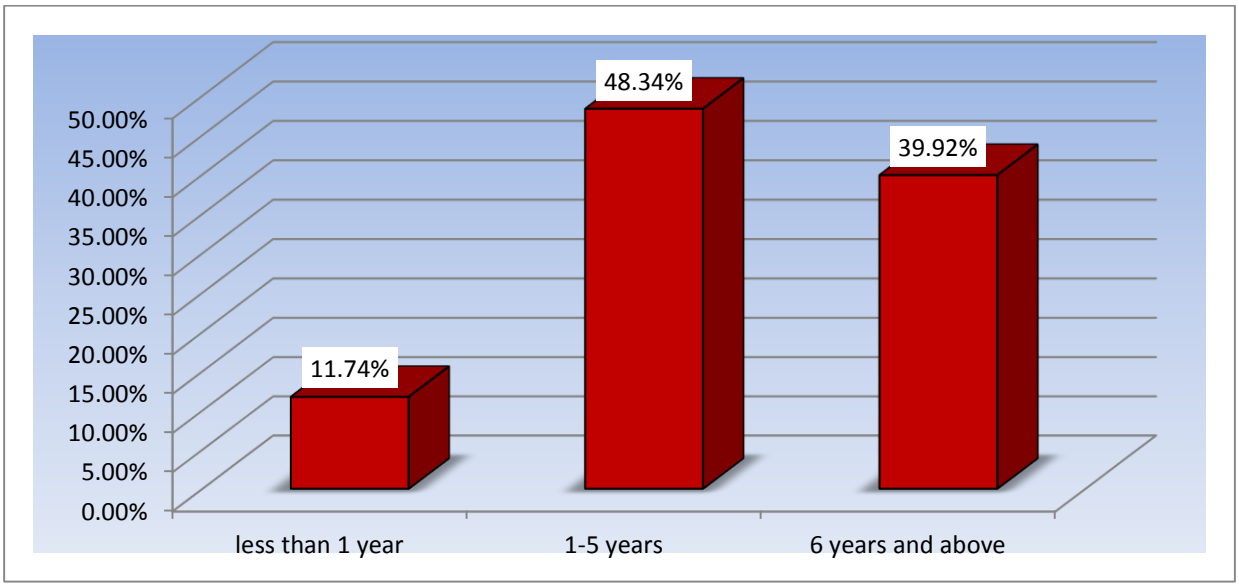
provides them knowledge and modern managerial skills, making them more conscious of the reality of the business world and thus in a position to use their learning capabilities to manage supply chain.

The findings therefore indicate that the respondents have the capacity, skills and management acumen systems and financial management. These skills may help them handle and interpret their respective business environments and the emerging issues in information technology.

4.4.4 Employment Period

Figure 4.4 presents the findings on the employees' employment period. The study sought to find out the length of time the respondents had worked with the County Government of Kisumu. According to the analysis of findings, majority (48.34%) of the respondents had worked in the organization for 1 to 5 years followed by 39.92% who had worked for a period of 6 years and above. It was also noted that 11.74% of the respondents had worked for Less than one year. Figure 4.4 shows the summary of the findings.

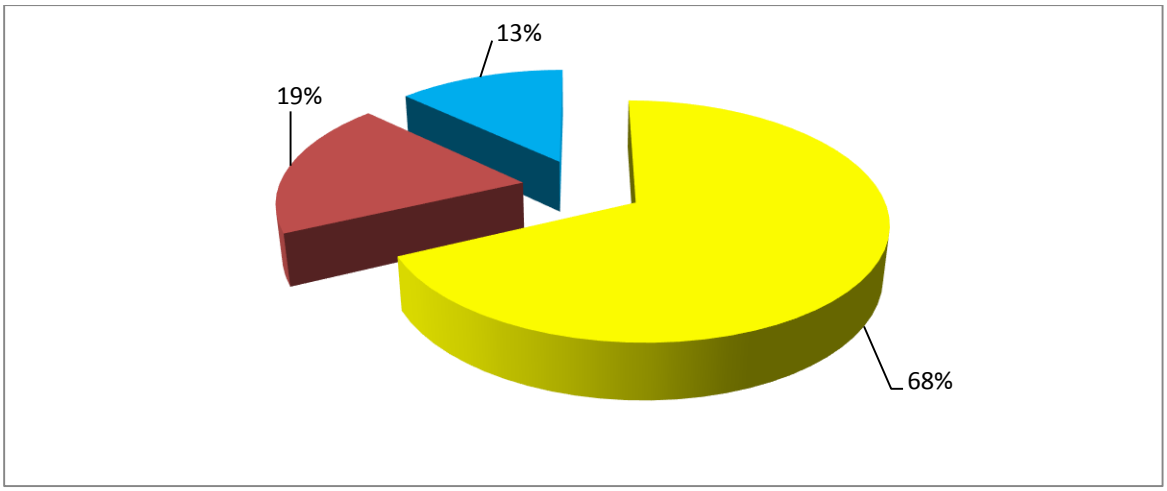
Figure 4.4 Employment Period



4.4.5 Effects of IFMIS system on Cash Management

The study further sought to establish whether the County Government used IFMIS, it was found that the County Government was using the system. In that regard the study asked the respondents to rate the effectiveness of using the IFMIS system on cash management. It was found that most of the respondents 68% pointed out that the system was effective, while 19% mentioned that the system was ineffective another 13% of the respondents did not know if the systems were effective. The findings were as represented in the figure 4.5

Figure 4.5 Effects of IFMIS system on Cash Management



4.5 Effects of efficiency of IFMIS on Cash Management

Various MDAs and Counties Governments have been experiencing problems in financial management, the study sought to understand the effects on efficiency of IFMIS on cash management. The findings were as represented in Table 4.3 and figure 4.6

Table 4.3: Effects of efficiency of IFMIS on Cash Management

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	pct	Pct	pct	Pct	pct
Improved the budgetary process	10.0%	4.0%	12.0%	52.0%	22.0%
Tracking of expenses	6.0%	6.0%	20.0%	50.0%	18.0%
Automated bank reconciliation	16.0%	32.0%	16.0%	28.0%	8.0%
Revenue Collection and Disbursement	12.0%	6.0%	20.0%	52.0%	10.0%
Use of cash projections	2.0%	8.0%	10.0%	58.0%	22.0%
Produce monthly, quarterly, yearly reports	6.0%	6.0%	12.0%	48.0%	28.0%

Source: Research Data

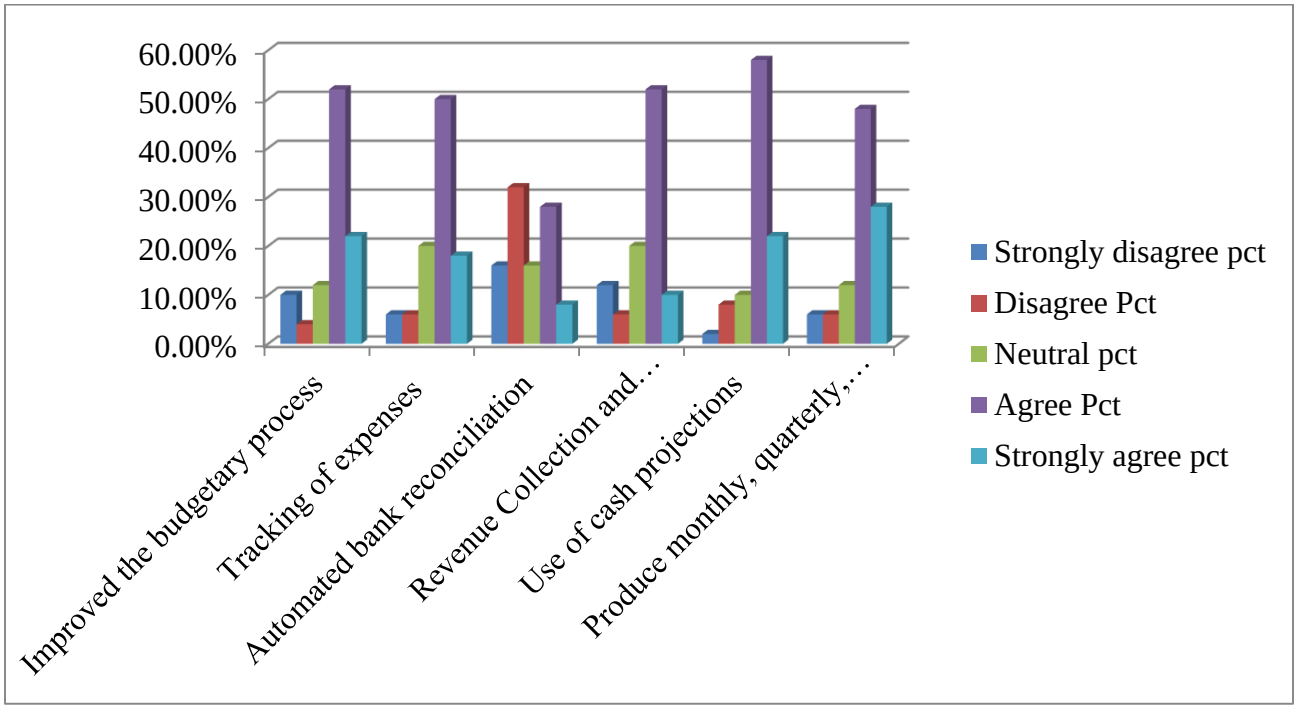


Figure 4.6 Effects of efficiency of IFMIS on Cash Management

Table 4.3 and figure 4.6 represents the findings of the study. 74% of the respondents agreed that IFMIS had improved the budgetary process (52% agreed and 22% strongly agreed). 12% were neutral and 14% disagreed with the statement. 68% agreed that IFMIS has helped in tracking expenses 20% were neutral and 12% disagreed.36% of the respondents agreed that IFMIS has helped in the automated bank reconciliation process 16% were neutral while 48% said that the system has not helped to improve the auto creation.62% of the respondents agreed that IFMIS has improved the revenue collection and disbursement process 20% were neutral and 18% disagreed with the statement. 80% of the respondents agreed that the system has helped in making cash projections 10% were neutral and another 10% disagreed. 76% of the respondents agreed that IFMIS has been helpful in producing monthly, quarterly and annual reports, 12% were neutral while another 12% did not agree. The study further asked the respondents whether the introduction of IFMIS had improved efficiency in service delivery at the County Government. Most, 78.11% said yes while 21.89% said no. They were also asked if IFMIS minimized errors resulting from using the previous manual system. Most of the respondents 75.29% agreed that IFMIS has minimized errors while the rest said no.

These findings agreed with GoK (2011) AND Peterson et al. (2008) where it was found that the implementation of IFMIS had resulted in prompt and efficient access to reliable financial data, improved provision of government services and raised the budget process to higher levels of transparency and accountability. The findings also agreed with Chuma (2014) that reliable systems are accurate, timely, complete and consistent in collection of information.

4.6 Effects of Reliability of IFMIS on Cash Management

The study sought to establish the effect of reliability of IFMIS on cash management. The findings were as represented in the Table 4.4 and figure 4.7

Table 4.4 Effects of Reliability of IFMIS on Cash Management

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	pct	pct	pct	Pct	Pct
Reduction in the down time of the system	4.0%	10.0%	18.0%	50.0%	18.0%
Seamless flow of data from budgeting to reporting	12.0%	28.0%	22.0%	24.0%	14.0%
Training on new updates in the system	4.0%	6.0%	26.0%	52.0%	12.0%
Financial performance being higher at the end of the financial period	4.0%	6.0%	20.0%	50.0%	20.0%

Source: Research Data

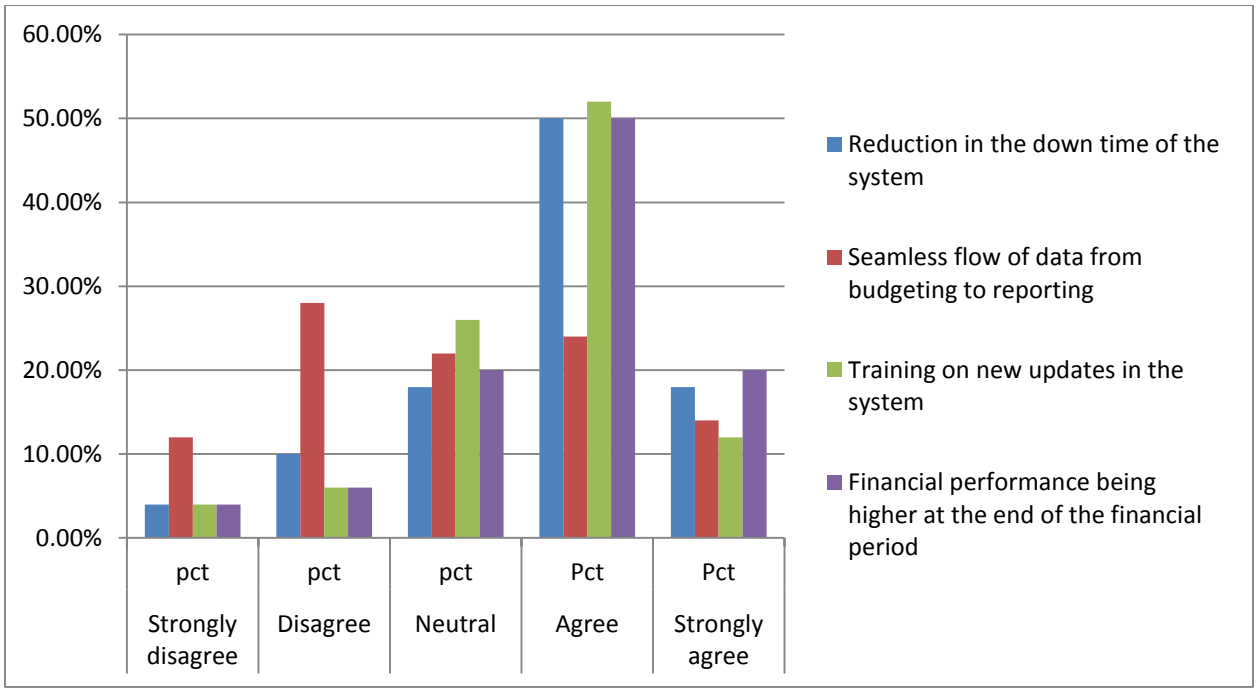


Figure 4.7 Effects of Reliability of IFMIS on Cash Management

From the table and figure above the findings of the study was that 68% of the respondents agreed that there was reduction in the down time of the system 18% were neutral on this issue and 14% disagreed that there was reduction in down time. 38% of the respondents agreed that there was seem less flow of data from budgeting to reporting 22% were neutral while 40% disagreed that

the flow of data was seamless. The respondents also indicated that they agreed that incase of new update there was adequate training of officers this was indicated by 64%, 26% were neutral while 10% disagreed. Majority of the respondents 70% indicated that financial performance was higher at the end of the financial period 20% were neutral while 10% did not agree.

These findings agree with Casals (2009) who concluded that one important aspect of a treasury system is that there should be consistent and progressive improvement in the accounting information available to decision makers for decision making.

4.7 Effect of IFMIS Implementation Strategy on Cash Management

The study further sought to establish the impact of implementation of IFMIS strategy on cash management the findings were as summarized in the table 4.5 and figure 4.8

Table 4.5 Effect of IFMIS Implementation Strategy on Cash Management

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	Pct	pct	pct	Pct	Pct
Training on the use of the system was done before the roll out	6.0%	6.0%	24.0%	44.0%	20.0%
Adequate infrastructure was available during the roll out	6.0%	6.0%	18.0%	58.0%	12.0%
Relevant user material is available for enquiry and	4.0%	10.0%	14.0%	56.0%	16.0%
Existence of operational support within the system (staff, system, processes)	4.0%		38.0%	44.0%	14.0%
Existence of secure and reliable links for users	4.0%	10.0%	14.0%	50.0%	22.0%

Source: Research Data

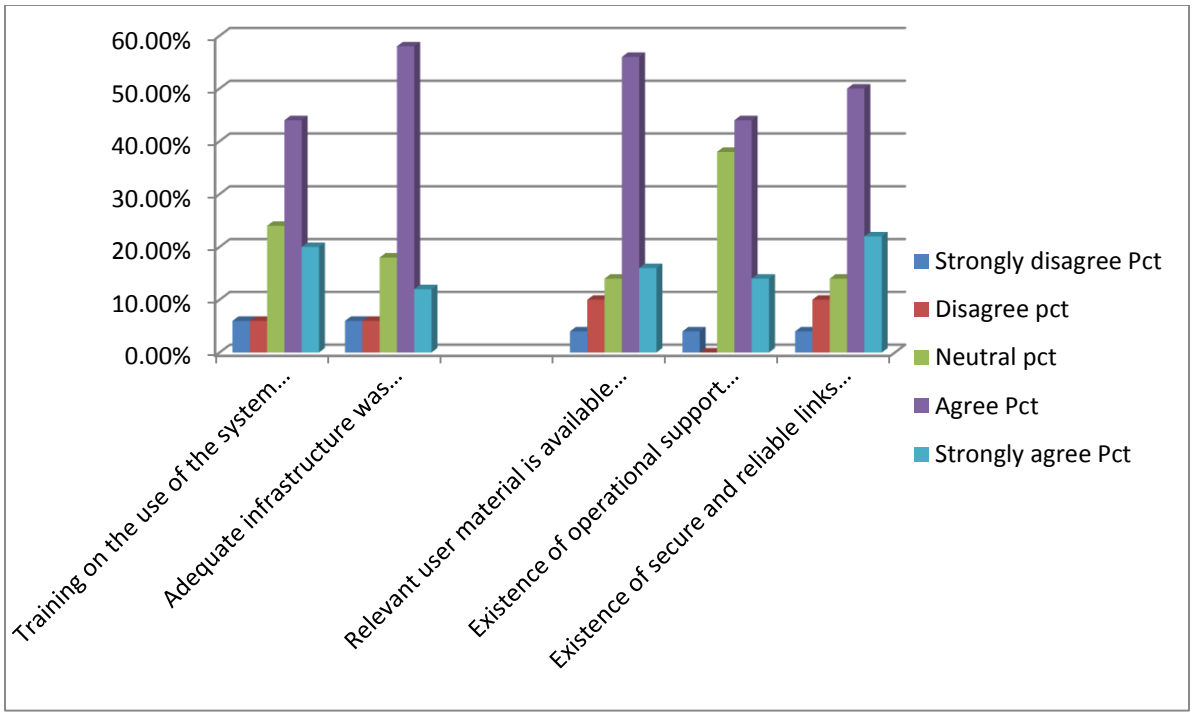


Figure 4.8 Effect of IFMIS Implementation Strategy on Cash Management

The findings of the study were that 64% of the respondents agreed that trainings had been carried out before the rollout of the system. 24% were neutral and 12% disagreed. 70% of the respondents agreed that there was adequate infrastructure available at the time the system was being introduced. 18% were neutral while 12% said that there was no adequate infrastructure. 72% of the respondents agreed that there was adequate relevant materials available for reference when the system was introduces 14% remained neutral while another 14% disagreed with this. 58% of those who responded indicated that there was adequate operational support during the launch of the system, 38% were neutral while 4% did not agree. When asked about the security and existence of reliable internet links for the officers' to use 72% agreed that here was secure and reliable links 14% were neutral and 14% did not agree. These findings are in agreement with Chuma (2014) and Chebet (2013) that availability of experts, adequate learning materials and pretesting of the system contributed to success of implementation of a system.

4.9 Summary of Results

The findings of the study indicated that the county uses the IFMIS system as the sole accounting and reporting system. The findings of the study indicated that the respondents agreed that IFMIS was efficient and producing the desired reports. This was explained by 76% of the respondents who agreed that monthly, quarterly and annual reports were produced promptly. 78% of the respondents agreed that IFMIS has improved efficiency in service delivery while 21% did not agree. The findings of the study also indicated that IFMIS was a reliable system and had minimal down time represented by 68% who agreed that indeed the system had minimal down time. The findings of the study also indicated that the implementation study has had positive effect on cash management as indicated by the number of trainings carried out during the system roll out with 64% of the respondents agreeing.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the findings of the study, draws conclusions based on the findings and makes recommendations that can be used by policy makers for decision making and by scholars for future studies

5.1 Summary

IFMIS is used in the Kenyan Government ministries and county governments as the sole accounting tool. The Governments have been faced with various case of corruption and misuse of public funds resulting in poor financial performance and reduced confidence by citizens in the government's projects. The study found that the county government used IFMIS system. In that regard the study asked the respondents to rate the effectiveness of using the IFMIS system on cash management. It was found that most of the respondents pointed out that the system was effective; while a few mentioned that the system was ineffective and the least said that they did not know if the systems were effective.

The results derived from study further indicated that most of the respondents strongly agreed that IFMIS can be efficiently used to track expenses. It was further noted that counties can effeciently monitor revenue collection and disbursement, additionally the respondents agreed that IFMIS has efficiently created an avenue for the County Government to understand cash usage and make informed projections. The respondents also agreed that the effect of efficiency of IFMIS has been felt by the county since they can produce monthly, quartely and yearly reports. This findings corroborated with GOK, 2011; Peterson et al, (2008). Where it found that with the

implementation of IFMIS, prompt and efficient access to reliable financial data as well as helping in strengthening government's financial controls, improving the provision of government services, raising the budget process to higher levels of transparency and accountability, and expediting government operations.

The study also established that the system has minimal down time. Additionally it was noticed that the respondents agreed that financial performance had increased at the end of the financial period. The respondents also agreed that there was seamless flow of data from budgeting to reporting. Further analysis showed that most of the respondents strongly agreed that training on the use of the system was done before the roll out. In addition they also agreed that county government had secure and reliable links for users. It was also noted that relevant users' material was available for enquiry and reference. However the study found that respondents disagreed that there was adequate infrastructure available during the roll out.

5.2 Conclusion

The study concludes that cash management influence the financial management in the public sector. This correlates with Dorotinsky (2003) who argues that there are a number of ways in which IFMIS can improve public finance management by enhancing confidence and credibility of the budget, accounting and reporting through greater comprehensiveness and transparency of information.

The study further concludes that IFMIS system effeciently monitors revenue collection and disbursement, tracking of expenses and production of timely and accurate reports. Muigai (2012) argued that Cost effectiveness through enhanced financial performance is important in this

endeavor and their operations. MDAs and County Governments thus have a significant bearing on public expenditure and financial allocation.

The findings of the study indicated that the respondents agreed that IFMIS was efficient and producing the desired reports. This was explained by 76% of the respondents who agreed that monthly, quarterly and annual reports were produced promptly. This implies that IFMIS helps in financial management because management is able to use the financial statements produced for decision making. This has also led to improved efficiency in service delivery.

Another conclusion of the study is that the system is reliable system and had minimal down time represented by 68% who agreed that indeed the system had minimal down time. The minimal downtime means that the system is mostly available to be used and can be relied upon in the whole financial management process from budgeting to reporting. From the findings of the study the system can also be relied upon as most of the respondents agree that whenever there are any new updates there members of staff are adequately trained on the new developments.

The study concludes that an implementation strategy is very important when implementing a new system as it will affect how the system will be taken up by the users. The government's implementation strategy was adequate as the respondents indicated that they were adequately trained during the roll out of the implementation

5.3 Recommendations

The study recommended that the public sector institutions should fully implement IFMIS as the conclusions of the study support the benefits resulting from its use. The study recommends that in future, a study be conducted on the effectiveness of IFMIS in all the county governments in Kenya as this study only focused on Kisumu County Government which is an urban city that

may enjoy infrastructural advantages that may not be in other counties. This study is important in identifying whether the financial management systems adopted by organizations are important in improving the financial management and what other strategies can be adopted so as to improve financial management.

5.4 Limitations of the Study

The primary data collection involved personal administration of questionnaires to the accountants, internal auditors and finance officers, chief officers and executive committee Member across ministries which required adequate time that was not available. Additionally it was an uphill task to get responses since some were reluctant to give answers to the questions in the questionnaires, thinking that that they were being investigated.

Another limitation is that the respondents were reluctant in giving some information about their financial management which they viewed being confidential. The researcher however reassured the respondents that information obtained from them would be used for the purposes of the study only.

5.5 Suggested Areas for Further Research

This study focused on only one county government that is Kisumu County Government and used the three variables i.e. implementation strategy, Reliability and Efficiency as variables. More research should be carried out on whether these factors also affect cash management in other County governments by using a wider representation and also by considering counties that were previously considered marginalized.

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APPENDICES

Appendix I: Questionnaire

Dear sir/madam,

My name is Nazareen.am a student of Catholic University of Eastern Africa and I intend to do research on the effects of introduction of IFMIS on cash management in Kisumu County. The information that you will give will be treated with utmost confidentiality. No names will be put while compiling the report for this study.

Demographic characteristics

Sex of respondent

Male ☐ Female ☐

Age of respondents

Below 18-25 ☐ 26-35 ☐ 36-49 ☐ Above 50 years ☐

Qualification of respondnets

Certificate ☐ Diploma ☐ Degree ☐ Masters

Period of employment in the county

Less than 1 year ☐

1-5 years ☐

6 years and above ☐

Department you are deployed in

……

EFFECTS OF IFMIS ON CASH MANAGEMENT

Are you using the IFMIS system?

Yes ☐ No ☐

How do you rate the effects of using the IFMIS system on cash management

Effective	Ineffective	I don't know

Indicate your level of agreement regarding the use of the system in your department.

EFFECTS OF EFFICIENCY OF IFMIS ON CASH MANAGEMENT

Technique	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**	**Not sure**
Improved the budgetary process					
Tracking of expenses					
Automated bank reconciliation					
Revenue Collection and Disbursement					
Use of cash projections					
Produce monthly, quarterly, yearly reports					

Has the introduction of IFMIS improved your efficiency in service delivery?

Yes ☐ No ☐

Explain.

……

……

Has IFMIS minimized errors resulting for using the previous manual system?

Yes ☐ No ☐

Explain

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EFFECTS OF RELIABILITY OF IFMIS ON CASH MANAGEMENT

How do you rate the level of reliability of the system?

Very high	High	Low	Very low	I don't know

Indicate your level of agreement on the following determinants of reliability of the system

Determinants	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**	**Not sure**
Reduction in the down time of the system					
Seamless flow of data from budgeting to reporting					

Training on new updates in the system					
Financial performance being higher at the end of the financial period					

What other aspects of the system have resulted in reliability

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EFFECT OF IFMISIMPLEMENTATION STRATEGY ON CASH MANAGEMENT

Has the IFMIS implementation strategy had an effect on the cash management?

Yes ☐ No ☐

Indicate your level of agreement regarding the effect of the implementation strategy on cash management

Relationship	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**	**Not sure**
Training on the use of the system was done before the roll out					
Adequate infrastructure was available during the roll out					
Relevant user material is available for					

enquiry and reference					
Existence of operational support within the system (staff, system, processes)					
Existence of secure and reliable links for users					

In your view, has the introduction of the system improved cash management?

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Thank you