THE EFFECT OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM ON THE FINANCIAL MANAGEMENT IN MINISTRY STATE DEPARTMENTS IN KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted for examination in any other University

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DEDICATION

I dedicate this study to my Mother, Cecilia Muthoni who stood by me throughout my studies and whose prayers kept me going.

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ABBREVIATIONS AND ACRONYMS

GoK - Government of Kenya

ICT - Information and Communications Technology

IFMIS - Integrated Financial Management Information System

IPPD - Integrated Personal Payroll Data

IS - Information System

IT - Information Technology

PEM - Public Expenditure Management

PFM - Public Financial Management

SPSS- Statistical Packages for Social Sciences

USAID- United States Agency for International Development

ABSTRACT

The Government of Kenya introduced Integrated Financial Management Information Systems (IFMIS) to address the challenges with the existing system aiming to increase efficiency in service delivery by increasing efficiency, increase transparency and reduce government wastage. This is one of the Public Financial Management (PFM) reforms undertaken by the government to address challenges faced by most developing countries in managing their finances and to conform to international standards and requirements. This study sought to establish whether all ministry state departments had adopted the use of IFMIS in their financial management. This study sought to find out the effectiveness of Integrated Financial Management Information System and to: analyze the effectiveness of cash management and budgeting systems in ministry state departments; analyze the effects of financial reporting systems and the effects of transparency and accountability. The study adopted a descriptive research with a targeted population of 35 Ministry State Departments in Kenya. Out of the 35 distributed questionnaires, 26 were filled and returned. The study used primary data which was collected by use of structured questionnaires relating to the specific objectives of the study. The study used both qualitative and quantitative methods of data analysis. Collected data was first coded and later analyzed using Statistical Package for Social Sciences (SPSS) information derived from the research questions. Descriptive and inferential analysis techniques were adopted to test study hypotheses. Descriptive analysis comprised of mean, standard deviation, coefficient of variation, skewness and kurtosis while inferential analysis comprised of correlation analysis, Analysis of Variance (ANOVA) and multiple linear regression analysis. The study found that cash management and budgeting systems, financial reporting systems and organizational transparency and accountability positively and significantly influenced financial management in ministry state departments. This study concludes that for financial management to improve significantly, there has to be improvement in cash management and budgeting systems, financial reporting systems and transparency and accountability since there was a positive and significant relationship in the variables. The study recommends that IFMIS should not only use IFMIS to conform to technological requirements by automating all functions, but as a PFM reform that affects how transactions are run across all ministry state departments and that managers should ensure that financial reports are easily and promptly availed to enable decision makers make reliable decisions.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Adequate decisions that are made in financial management are based on principles of accountability, flexibility, predictability and transparency. For these principles to be realized, a proper functioning financial and accounting system is vital to assist Governments in developing countries to allocate and use resources effectively and efficiently (McKinney, 2004).

The main objective of using Integrated Financial Management Information Systems (IFMIS) in financial operations is to back and provide foundation to the general Public Financial Management (PFM) reform activities in all stages and adopt the modern Public Expenditure Management (PEM) practices to maintain the international standards. This helps to improve transparency, accountability, effectiveness and efficiency in the use of public resources. IFMIS aims to improve the core and non-core systems. Core systems will include the general ledger, accounts receivables and payables, financial reporting and fund management while the non-core systems will include the payroll, procurement, formulation of budgets, inventory and performance management (Dorotinsky, 2003).It would be important to assess the stage of PFM system development. How far the system has come from as opposed to where it should be since not everything can be automated at the once. Technology is rapidly changing thus IFMIS systems may evolve and as a result

need to expand the automation. It may not be feasible therefore, to pre-plan all the IT options (Bartel, 2009).

In the recent past, governments in developing countries have introduced new ways of computerizing their operations, while observing the PFM. IFMIS is one of the major reforms undertaken by the Governments to ensure there is a computerized system that will increase efficiency and effectiveness of state resources. These reforms were deeply rooted based on the fact that the public sector is large and cumbersome (Guthrie, 2005).

In Kenya, introduction of IFMIS and subsequent re-engineering of the same has seen major reforms to adopt best practices. This design has placed the NT in a better position to assist the National and County Governments take advantage of technology to advance accountability and transparency in the use of public resources (Treasury, 2013). IFMIS has different scope and functions in different countries, whose implementation is complex, involves a lot of preparations, dialogue, analysis, commitment and backing from all stakeholders for it to be successful (Treasury, 2013).

1.1.1 Integrated Financial Management Information System

An Integrated Financial Management Information System (IFMIS) is termed as a budgetary devise that helps governments to develop solutions in their operations by automating functions such as planning, implementation, monitoring to assess whether budgeted items are prioritized and to ensure that there is transparency while reporting for both expenditure and revenue (Cem Dener & Dorotinsky, 2011). USAID (2008) defined IFMIS as a system that records financial transactions, provides an audit trail of financial

events and provides a summary of financial information. It is a fiscal tool that basically interlinks planning, budgeting, management of expenditure, accounting, audit and financial reporting aiming to meet the expectations of the public by delivering services to them more efficiently, effectively and with the least possible cost.

The basic feature of IFMIS is the ability to interlink with several modules like the Government Payment Solution (G-Pay) as well as the Integrated Personal Payroll Data (IPPD). The benefits of IFMIS include but are not limited to: improved value for money, more optimal allocation of resources, reduced cases of fraud and corruption, increased transparency and accountability (Finance, 2003). A well- designed IFMIS should have the following characteristics: a management tool that caters the needs of both the central and line agencies, provide both the non-financial and financial information as well as give information to involved parties on a regular basis (Diamond & Khemani, 2005). They further noted that IFMIS is composed of several modules each with different functions. They identified the primary modules of the system which includes: budgetary accounting, accounts receivable and payable and general ledger. Other modules considered secondary include: budget development, project ledger, payroll system and asset module.

Most governments could not give a proper account of their expenditure and revenues. This was one of the reasons why they sought to address this challenge by incorporating the PFM. The manual systems could not be relied on to give an accurate report of the government spending. Financial transactions being lengthy, there was need to introduce a

system that could store data and summarize it to meaningful information and generate timely and accurate reports that could be relied upon to help governments make decisions. IFMIS therefore was adopted to help solve this challenge of delayed financial reports (Diamond & Khemani, 2005).

Transparency in any government spending is very crucial. Budgets should be published for the general public to access to increase their understanding of the financial activities that the governement intends to undertake. The automated system therefore helps to trace financial events from beginning to end. Vouching therefore during audit process becomes an easy task. It aslo ensures that there is full accountability in the use and management of public funds (Dener and Young, 2013; Hendricks, 2012).

Cash management and budgeting is another important role supported by IFMIS. A country will adopt a budget based on their economic situation. In most developing countries, a surplus budget is rarely attained and therefore, a proper system that supports the management of resources and formulation of budgets that will help reduce wasteage and control overspending will come in handy (Treasury, 2013). The central agency has the responsibility of ensuring that at the beginning of every budget cycle, all spending units receive a budget circular showing the economic prospects, policies as well as the parameters within which budgets should be prepared (Chadeshady, 2013).

In addition, the success of IFMIS will be judged on integration platform. This implies that the system should have these features: specific manner for classifying data and

recording the financial events, the internal controls put in place to ensure data is captured correctly, processing of transactions, a standard procedure to be followed in case comparable transactions arise 0and most importantly a system design with the ability to detect and eliminate the possibility of duplicate data entry. IFMIS can be used by organizations to help improve their financial management and to some extent their liquidity position by efficient management of cash inflows and outflows, debt and liabilities. IFMIS also has the ability to generate budget estimates using past information (Dorotinsky, 2003).

IFMIS in the Public Financial Management involved several steps carried out by different people to increase segregation of duties and increased transparency. These steps include: invoicing, validation, approval by 2 officers and finally payment. This is a fiscal discipline that allows for the achievement of the financial objective in any institution (Treasury, 2013).

1.1.2 Financial Management

Finance is the science or art of managing money. Management on the other hand means to control something in an efficient manner. Therefore, financial management is the managerial activity undertaken in a business to obtain funds and effectively utilize the same for efficient operations (Bhat, 2008). Financial management is therefore important as it provides theories which help managers understand the major financial skills like the ability to compute return on investment, interest rate on debt, cost of acquiring initial or additional capital and basic arithmetic accuracy. A business will not thrive or will barely

struggle to survive if there is lack of knowledge in financial management (Timmons & Spinelli, 2007).

The aim of financial management is to guarantee effective procurement and efficient utilization of finances (Paramasivian & Subramanian, 2009). Financial management ensures that there is a systematic procedure to be followed during procurement and that appropriate policies are formulated to increase the public confidence. There is a relationship between PFM and the publics' expectations with resources and the current with the past. This affects the operations and economic policies of government (Premchand, 1999). Reid (2003), noted that different organizations have unique stages of financial management. The main stages include: Policy formulation which basically transforms the organization's objectives into feasible policies with proper financial implication. Budget formulation is another step he noted which involves the efficient allocation of resources before remitting to the authority for review and approval.

The major aspect of public sector financial management is that the government's financial reports are subject to audit. Audit is the official inspection of accounting records and financial statements by independent and qualified auditors with the aim of expressing an opinion whether the books of accounts reflect a true and fair view according to the terms of appointment. Accounting by government is thus a crucial component in the public sector management of financialprocesses in the country. The treasury is tasked with controlling and regulating the income and expenditure esimates in a financial year. Top level decision making is a domain of the Parliament where its responsibility is to

scrutinize budget estimates and ensure transparency, accuracy, efficiency and effectiveness of government's income and expenditure (Diamond & Khemani, 2005).

1.1.3 Integrated Financial Management Information System and Financial Management

IFMIS as defined by Diamond and Khemani (2005), is a system that uses information technology to track financial records and transactions and provides financial information in a simplified and summarized manner. Governments, and mostly in developing countries experienced challenges developing budgets and managing their resources effectively. The need for automating their operations to was therefore a revolution that had to be implemented as per the standards set by the international community. Governments make use of budgets to come up with the direction to be followed in its national policy, to highlight the expenditure that the government wants to incur through different programs as well as how it will raise revenue to finance the expenditure. The process of budgeting in the public sector is basically conducted at two levels; at the central agencies such as the ministry of finance and at the line ministries and other state agencies. The central agencies ensures that structures put in place are followed by line ministries.

One of the modules that an IFMIS system supports is the function of budgeting that helps in the effective management of cash by ensuring that budgets are adhered to and priority is given to expenditure that is captured in the budget to minimize wastage. This in the long run improves the financial management in the public sector. Preparation and

execution of accurate budgets will increase the financial management for any spending unit as their information will be credible. The intention would be to enhance the process of budget planning and implementation by availing up-to-date and accurate data to management for the purpose of decision making (USAID, 2008).

IFMIS stores financial information in a way that can be easily retrieved. Another module that is supported by IFMIS is the ability to generate timely financial reports. Financial reports describe retrospectively the results of an organization‘s financial transactions and events in terms of its performance and financial position. The purpose of these financial reports is to ensure that there is budget adherence (Gibson, 2012). This therefore provides a means for internal or external auditors and generally the different stakeholders to assess the government’s financial management. According to Gibson (2012) for financial reports and statements to be relied to make decisions, they have to be accurate, timely and all facts considered material disclosed.

The use of IFMIS has led to improved capturing of records and lengthy processes of most government entities financial transactions. It has been noted that there has been improved access to data. The use of IFMIS has also strengthened the internal controls. When a commitment is made by the person requesting, the system is configured in such a way that it can trace all the stages of processing that transaction right from when the budget is released, purchase, request of payment, bank reconciliation statement and later on to the accounting of the expenditure (McKinney, 2004).

Dener and Young (2013) in their study, found out that most researchers agreed that for clarity or transparency in any government expenditure, it would be vital for the government to publish on websites their budget data and that the disclosed data should be meaningful enough to portray a clear understanding of their financial activities to the public. According to Hendricks (2012), IFMIS helps the management to ensure that there is accountability in the use of decentralised public resources and that programmes run smoothly to improve efficiency and effectiveness. The automated system supports tracing financial events in different stages thus the management is able to seal the loopholes thereby controlling expenditure. This in the longrun improves transparency and accountability in the budget cycle.

1.1.4 Ministry State Departments in Kenya

In line with the Executive Order No.1/2016on the Organization of the Government, the President is mandated to form ministries according to the Kenyan Constitution under the Legal Notice No. 183 of 2013. These ministries are further sub-divided into state departments. Kenya has 35 ministry state departments (Appendix II). The ministry state departments are headed by principal secretaries who are assisted by a team of technical staff who undertake assigned tasks. Whereas the ministries and respective state departments execute their duties through the establishment of the main functions, which includes the hands-on team with various expertise, the procedures for executing duties, controls and financial management. All the ministries have been mandated to ensure transparency, efficiency and effectiveness in the service delivery to the public (Kinyua, 2003).

All the ministries which may tend to have the same processes in their functions in terms of the service delivery to the public especially on the financial issues of the ministries in which they have the same stages such as preparation of budget, budget authorization, funds commitment, receipts and payments, management of cash, review of the budget and economic planning, audit and evaluation (USAID, 2008). Most governments in developing countries used to maintain all the financial processes manually and as a result a lot of embezzlement of funds, cumbersome and lengthy processes and low service delivery to the public was experienced. There was a high concern on the adoption of a computerized system that would addressthe challenges of mismanagement of funds in government ministries and otherdepartments especially those that were deemed critical for the service delivery to the public such as the financial management department (Diamond & Khemani, 2005).

The Kenyan government ministries and state departments therefore adoptedthe modern way of computerizing their procedures to address the challenges experienced with the existing reporting and management system to ensure best practices were excercised to enhance good governance and transparency of public funds and expenditure. This brought about the need to automate the financial system in the government ministries and the various state departments. The main aim of automation being to enable generation of accurate and reliable financial statements, enable transparency in the financial transactions and to enhance public service delivery. It was also essentialto improve the ministry state departments' cash position, managing the receivables and basically

monitoring the flow of cash from one point to another. This creates a need therefore to study how Integrated Financial Management Systems impacts the management of finances in the ministry state departments. The existing system could not provide timely and accurate reports that could be relied upon for decision-making, For managers to effectively manage their cash flows, accounts and reports generated are important. This increases transparency and confidence from the public (Kearney, 2004).

1.2 Research Problem

Timmons and Spinelli (2007) stated that IFMIS relies on information and communication technology to track financial records and to provide summarized financial information that can be easily retrieved whenever need arises. They further noted that ICT assists organizations in their financial operations more so when making decisions on budgets and when preparing financial statements and reports. An operational IFMIS can improve the quality of financial information that is key while making financial decisions. This could be relied to improve governance by providing readily available information to decision makers which is used to ensure that programs run effectively, faster formulation of budgets and proper management of public resources. It is the responsibility of the National Treasury to avail accurate budgets and expenditure management of the country's financial resources. To continually provide this crucial service, the ministry state departments are working around the clock in order to developfinancial management systems using public sector transformations. This increases accountability and transparency thus improving the quality of service delivery to the public. However, as

noted by Bartel (2009), the system had several challenges like security, adjustablility and user friendliness that needed to be addressed.

The National Treasury brought up the IFMIS re-engineering strategic plan 2011-13 to provide an organized methodology to stabilize the already rolled out IFMIS to aid in the development of a comprehensive financial management information system which would help the government to attain the benefits of a fully integrated financial management information system (Treasury, 2013). It is however not clear from the publicly available information the quantitative gains that IFMIS had realized.

Diamond and Khemani, 2005 observed that most developing countries maintained either manual systems in budgetary process and accounting or maintained outdated application softwares. This negatively impacted the smooth running of the public expenditure management (PEM) leading to unreliable and untimely financial data to be used for budget forecasts, monitoring, control of expenditureand reporting. Consequently, the government could not properly commit its resources resulting to excessive borrowing to cover budget deficits, increased interest rates, and haphazard allocation of resources. They further observed that without proper systems, governments were unable toestablish the financial positionof the spending units due to accessibility of financial information. It is for this reason that most countries sought to correct this anomaly by adopting IFMIS to strengthen their systems.A study conducted on IFMIS Best practices showed that the design and implementation of IFMIS depended on the specific environment. The study also showed that IFMIS would provide financial management solution to developing and

post-conflict countries whose administration and economic development had become obsolete though war or conflict (Associates C. , 2004).

IFMIS is a financial tool used by governments to combine all financial management functions into one application by use of information technology. It's aim being to assist governments budget for their resources, spend, trace financial events, account for their expenditure and provide periodic reports, thereby offering services to the public more efficiently, effectively and with the least possible cost. As observed by Ajayi and Omirin (2007), IFMIS would expedite the growth and development of a country and improve on service delivery by providing services efficiently. IFMIS has however faced challenges that should be addressed.Bartel (2009), stated that IFMIS should be user friendly, reliable in terms of providing timely and accurate reports, ensure that data is safe from manipulationand provide real time reports on cash management and budgets. As much as IFMIS is necessary, it has challenges that should be tackled with.

Lack of transparency and accountability in government expenditure had led to misappropriation of funds and exceeding budget limits due to poor internal controls offered by manual systems. The financial system was therefore implemented to help the government prevent loss of revenueand guard against unauthoized spending (Kinyua, 2003). Another study conducted by Chado (2015) found that IFMIS had a great impact on the cash management and budgeting systems and positively influenced financial management in the public sector. The study however concentrated on ministries based in Nairobi and the sample involved only one cadre of staff. Chumba (2014), established

there is need of an accurate, prompt, consistent and reliable system in the operation of the financial information and framework in order to enhance cash management in the function of the government department. Magutu, Lelei and Borura (2010) established the implementation of the information systems is experienced with a lot of changes in terms of the processes, structure and communication thus influencing negatively on the financial management of the government funds thus influencing on the public service delivery. Hashim (2006) established that the financial management information system have an impact on the commercial world especially if the system is consistent with the set out frameworks of the financial management.

Past studies carried out on the related studies had a limited knowledge on the effect of integrated financial management information system on financial management of the government ministries according to the researchers knowledge. The above studies concentrated on the impact that IFMIS had on the public sector with most of them concentrating on the Ministry of Finance without looking at the same for the various ministry state departments. Therefore, this study sought to fill this gap by finding out the effect of IFMIS on financial management in ministry state departmentsin Kenya by answering the following research questions: How does financial reporting systems in IFMIS affect the financial management of ministry state departments in Kenya? What is the effectiveness of cash management and budgeting procedure in IFMIS on financial management in ministry state departments in Kenya? Does organizational transparency and accountability systems in IFMIS affect financial management in ministry state departments in Kenya?

1.3 Research Objectives

1.3.1 General Objective

To determine the effectiveness of IFMIS on the financial management in the ministry state departments in Kenya.

1.3.2 Specific Objectives

i. To analyse the effects of financial reporting systems in IFMIS on the financial management in ministry state departments in Kenya.
ii. To determine whether organizational transparency and accountability systems in IFMIS have had any impact on the financial management of ministry state departments in Kenya.
iii. To analyse the effectiveness of cash management and budgeting systems in IFMIS on the financial management of ministry state departments in Kenya.

1.4 Value of the Study

This study will benefit the government of Kenya by considering the recommendations by this study inorder to strengthen the management of financial resources thus enhancing the efficiency and effectivesness of service delivery oto the public.

The study will also be beneficial to the general public as it seeks to establish accountability of expenditure and transparency of financial resources. Being the

taxpayers, they will be interested to find out how the government has been handling their resources.

The study will contribute to the body of knowledge required to understand the effects of IFMIS on PFM in Kenya so as to improve accountability, transparency and service delivery to the public. It will also provide a basis for referencing to other scholars who would wish to conduct similar studies in developing countries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter entails existing literature that supports this study and compares and contrasts the findings from previous researchers on the related study topic. Both independent and dependent variables are also explained in this chapter alongside the conceptual framework and summary of the chapter.

2.2 Theoretical Framework

Accounting Information System (AIS) has been drawn from various categories of computer science, organizational theory and cognitive psychology (Mauldin & Ruchala, 1999). In this regard, this study will depend on Meta Theory Model, Contingency Theory and System Theory.

2.2.1 Meta Theory Model

Meta theory is the combination of scientific, organizational and cognitive adjustment into a fundamental model that may be used to research on AIS (Mauldin & Ruchala, 1999). This theory has been used to come up with solutions to the limitations associated with IT which are forthcoming and have been discussed in previous studies such as the inability to identify the following; the tasks that IT is being employed, the adaptive nature of artificial developments, the most appropriate decisions to choose and generalizing all transactions in the same manner (Gorry & Morton, 1971). In such manner, it has been stated that past uses of data innovation in accounting systems were most of the time

lengthy transaction processes that were used in place of manual systems. This has prompted the need of consolidating different accounting sub topics into more research on AIS.

With expanded concentrate on the plan of these frameworks, experts will help in value addition to the field and therefore reinvent the range of AIS. Information Systems are rapidly changing. This has brought about the need to come up with a structured way of getting things done. AIS are employed by accountants and various people in management who make meaningful information from the available accounting data. This theory is generally based on historical plans on management information systems. They further observed that technology was a vital tool to be used to increase efficiency by shortening the tedious accounting processes. Various research strategies are being practised to tackle the limitations associated with AIS. This has been experienced in administrative accounting where hands-on work and analytical work seek to provide solutions to the link between management information systems and accounting (Reneau & Grabski, 1987).

Innovation, such as technology is extremely important in accounting as it transforms the procedures and quality of work thus promoting efficiency. This is all around perceived in the accounting theory. The Meta theory begins with an assignment center and recommends a procedure that matches the assignments and the options for system plan and different levels of investigation. It also proposes possibility factors, authoritative elements and innovative elements have an impact on the part of undertaking execution.

2.2.2 Contingency Theory

The theory was developed by Macintosh (1981), as an advancement of the substitute theories that have been developed for the purpose of AIS. He acknowledged the IT hypothesis that grasps the idea of large firms, innovation and data development systems. Prior to the contingency hypothesis and possible connection to the specific situation, management of the association and accounting structures.

Customarily, finance has been the significant provider of data for decision-making. According to Simon (1954), who conducted an investigation of centralization versus decentralization which revealed that an accounting system would be important to assist the management in making decisions. Several researchers such as Caplan (1966), among others, have examined the need to consider the connection between the key decisions made by management and the accounting systems. Caplan (1966) characterized managerial accounting as information systems whose significant existing reasons are; to give the different levels of management data that will be relied upon to make decisions of planning and directing, and to act as an intermediary of communication. The contingency hypothesis has been utilized for identification, investigation and the assessment of the components that influence the structure of AIS and Financial Information Systems (FIS).

2.2.3 System Theory

According to Bagad, 2008, who defined system as a group of interrelated components organized with a purpose. Wang (2005), recognized information does not really include any informed personality, and disseminating patterns (because of feedback) in the system

can be called information. At the end of the day, one might say that data in this sense is something conceivably seen as portrayal, however not made or introduced for that reason. As indicated by Kang'ethe (2002), a framework is a gathering of related segments, which cooperate to accomplish a coveted reason or set of goals.

The requirement for productivity and adequacy subsequently delivers another need of guaranteeing amicability and cooperative energy between the human asset as the center asset that controls different assets from one perspective and alternate devices of exchange, specifically current ICT then again to understand the destinations of office secretarial administration. There is in this manner the unmistakable need to comprehend the view of human asset and regions with potential for struggle over the span of collaboration between the human asset and present day ICT. Whenever personal computers and correspondence advances are joined, the outcome is data innovation frameworks, or "InfoTech". Data innovation is a general term that portrays any innovation that produces, control, store, impart, and additionally scatter data. Apparently, when talking about data innovation all in all, it is noticed that the utilization of PCs and data are related (Wang, 2005).

As recognized by Wang (2005), information is something potentially perceived as representation, though not created or presented for that purpose. There is high need to create synergy and harmony between the tools of trade and human resources in order to achieve efficiency and effectiveness in the modern ICT environment. Hence understanding the human resource perception and the interaction between the technology

and human resource is essential in order to curb the conflict that might occur during their interactions.

2.3 Determinants of Financial Management in Ministry State Departments

As noted by Diamond and Khemani (2005), government operations and transactions are lengthy and therefore the use of IFMIS in government institutions was meant to increase efficiency in service delivery and improve on the financial management of public resources. In the past, government institutions faced challenges when reporting due to the inefficiencies of manual systems. This compromised on transparency and accountability of public resources. Governments could neither adequately prepare their budgets nor control their expenditure with the existing systems. For financial management of institutions to improve, financial planning and the internal controls should be considered as discussed below:

2.3.1 Financial Planning

Managing public institutions has become a difficult task in the recent past due to changes in size and complexity of government operations. This therefore necessitates financial planning to effectively manage public resources (Steiss & Nwagwu, 2001). Each government utilizes a budget that aids in financial planning, as a crucial tool that will lead towards realizing its national strategy, the cost to be incurred by various government programs and the likely sources of incomes during a financial year. The yearly spending brings to light the wide economic strategies of the government and estimates of income and spending. The type of spending plan implemented by a country will rely upon the

nation's economic circumstance. In most developing nations, a surplus spending plan can't be accomplished (Treasury, 2013).

Financial planning process in the public sector is divided into those carried out by the central agencies such as the ministry of finance and the ones prepared by line ministries and agencies. The ones done by central agencies are directly connected to the control system. The fundamental capacity of the central agencies is to guarantee control structure that is well utilized through government services. This practical procedure interlink areas such as; macro monetary forecasting, expenditure planning and endorsement, and spending execution, management of resources and accounting for the same. According to Allan (1999), the main arrangement of procedures supports the goals of setting monetary approach and strategic needs and the second set supports the goal of improving the utilization of planned assets and guaranteeing accountability.

A budget is a critical tool that has to be followed as it ensures there will be no overspending in government ministries, thus helps in financial planning. The central agency (Ministry of Finance) is tasked with the responsibility of ensuring that at the start of a budget cycle all government ministries and other agencies receive a budget circular clearly showing the financial forecasts and wide tactic objectives as well as provide the limits within which the spending units should prepare their budgets. This enhances financial planning and also helps to increase transparency and accountability while reducing fraud at the ministry level (Chadeshady, 2013).

2.3.2 Internal Controls

Inward control frameworks are the approaches and methods set up by the management of a government agency keeping in mind the end goal that will guarantee the organization realize its objectives and conforms to other external laws and requirements. Such strategies and systems tend to cover fiscal accounting and reporting, checking the performance, management of assets as well as procurement (Simson et al., 2011). IFMIS being a management tool, it empowers the administration achieve the following: control the spending patterns and the shortfall, organize use crosswise over strategies, efficiency in projects and activities and strategic distribution of resources, improve utilization of planned assets, in particular, to achieve results and produce outputs at the least possible cost (Hendricks, 2012). As such, the advantages expected by using IFMIS are: improved administration, decreased extortion, transparency and accountability, and better observing and assessment.

According to Oz (2006), financial managers, controllers and treasurers' main objective is to control and manage the financial resources of an institution in the most efficient manner. They accomplish this objective by collecting payables as quickly as time allows, making installments at the most recent time allowed by the contract or law, observing that adequate funds are availed for everyday operations and exploiting chances to collect the highest yield on funds that are not put to use immediately. Simson et al (2011) indicated for efficient management of the cash flow from aggregating, it is critical to screen the sources of future installments. Furthermore, procurement is a typical source of corruption and in this manner procurement frameworks have a tendency to incorporate

controls intended to recognize and discourage corruption through IFMIS. Hendricks (2012) submits that the IFMIS with its various features can be able to control and detect fraudulent behaviors such as excessive payment, theft or malicious payment for it allows for automated personal identification, cross-referencing of assets inventories and pattern suspicious of activities.

2.4 Empirical Studies

IFMIS is an information system that tracks financial events and summarizes financial information (USAID, 2008). Researchers have conducted studies to establish the relationship between IFMIS and financial management. These studies are discussed below.

Dener and Young (2013) sought to establish the effects of IFMIS on publishing open budget data and identify areas of improvement in budget transparency and provide some sense of direction on the effective use of IFMIS platforms to publish open budget data. This study found 20 major and 20 elucidative indicators from 198 economies of public finance websites assessing the status of government websites for publishing open budget data from IFMIS. The study found out that even though there was widespread availability of 176 FMIS platforms used by 198 governments around the world, only 24 countries (12%) had presented an open budget data from reliable IFMIS solutions.

Diamond and Khemani (2005) in a study conducted on introduction to financial management information systems in developing countries found that different reports can

be generated from the integrated financial system; from reports dealing with the sources of finances, budget variances and cost deficits, financial usage reports, expenditure reports, balance sheets, returns on investment and payables, cash flow estimates, and performance reports of all types. Some systems have archives consisting of hundreds of standard reports. Managers and other key decision makers use this financial information for a various purposes; to come up with budget estimates; variances against the actual and estimated budgets and plans; manage and control cash balances; monitor and track the status of debts and receivables; monitor the performance of specific departments or units; and make reviews and adjustments as necessary, oversee the use of noncurrent assets just to mention but a few. He recognized the system generated reports are always structured in order to meet the reporting requirements by external agencies and international institutions like the World Bank and International Monetary Fund (IMF).

Barry (2001) sought to establishthe guidelines for public expenditure management in the government ministries. The study revealed that it was quite involving to operate IFMIS than other ICT-based government reforms owing to the deeply rooted complications of public financial management system. He recognized that the financial management system involves all the ministries and spending units within the government. However, integrated public financial management system is subjected to a lot of challenges hence requires several parameters to be met for successful implementation of long term sustainability in the financial sector. The study suggested that the implementation of IFMIS system should be viewed as public financial reform that could affects the financial operation of the government institutions and ministries but not as technology fix alone.

Muigai (2012) on his study onthe effect of integrated financial management information systems on the financial management of public sector in Kenya: a case of the Kenyan ministries. The study focused on the 42 Ministries in Kenya and the population of the study involved 30 financial departmental employees' majority of whom were accountants in the government ministries who directly uses the Integrated Financial Management Information Systems. The study showed that IFMIS has a greater impact on the efficiency on the financial transactions in the government spending units which lead to an improved financial management in Kenya.

Chado (2015) also sought to find out the effect if integrated financial management information systems on the financial management of public sector in Kenya. The study employed descriptive research with a targeted population of 18 National Government Ministries in Kenya. The study established that internal control systems, organizational accountability systems, cash management and budgeting systems, and financial reporting systems positively and significantly influenced the financial management in the public sector. The study recommended that managers could use information to plan and formulate budgets; carry out variances of actual against budget estimates and plans; manage cash balances; monitors the status of debts and receivables; track the use of noncurrent assets and monitor and evaluate the performance of specific departments or units.

Chebet (2013) explored the critical success factors in the implementation of the re-engineered integrated financial management information system in government ministries, Kenya. The study adopted a survey research design. Stratified sampling technique was used to divide the population into three strata: finance officers, ICT officers and major system users and attained a sample size of 54. The study established the following factors as being critical in the implementation of the re-engineered IFMIS: Involvement of users in the process and structured procedures for recruitment and risk management; managing resources properly; top level cash management and budgeting systems, just to mention but a few. Further, the study revealed that co-operation among departments; experts 'availability, adequate learning materials and adequate pre-testing of the system were found to have contributed to the success of the implementation.

Chumba (2014) explored the Integrated Financial Management Information System and Its effect on Cash Management in Eldoret West District Treasury, Kenya. The study sought the effect of IFMIS on cash management practices in the public service. The research employed descriptive survey research design. The target population was 70 staff and top management at the Eldoret West District treasury division. The findings from the study indicated that having an accurate, prompt, consistent and complete reliable system in the operation of the financial information and framework that supports the IFMIS is supposed to be secured and have control mechanism in order to avoid financial discretions, unauthorized access and breach of confidentiality so that there is efficient cash management.

Magutu, Lelei, and Borura (2010) undertook a study to evaluate the implementation of information systems in kenyan parastatals and the challenges experienced. The study adopted a survey design methodology and data was collected using structured questionnaires administered to 65 IT officers in state parastatals. They found out that most parastatals had adopted the use of information systems. The study also found out that there were challenges realized during the implementation process such as;process and structure; procurement amd communication; corruption and technical system tuning challenges.

Hashim (2006) in the study to explore the main functional requirement for a fiscal management system. The study adopted primary data using detailed questionnaires with both open ended and close ended questions. The study found out that financial management information systems are implemented and operated successfully in in the commercial world. The study as established that IFMIS ensures that before a purchase or expenditure is committed, there had to be enough cash allocated to that expense and that the allocation matched with the budget.

Kibui (2013) explored the financial literacy and financial management of the youth enterprise fund in Konoin constituenct in Kenya. The study employed a cross sectional desriptive survey technique. The study used primary data that was collected by issuing detailed questionnaires that had both open ended questions and close ended questions to a sample of 250 respondents, selected using the random sampling technique. The study found out that there was a direct relationship between financial literacy and financial

management. It also found out that many youth lack the basic skills in financial planning practices. It was also established that the level of financial literacy was low, which was associated to low level of financial knowledge, little exposure to management of finances and the level of education.

2.5 Conceptual Framework

The conceptual framework provides an explanation in a diagrammatic format the elements of study in this research proposal. Its purpose is to highlight the relationship between the dependent and independent variables. On one side there is financial management which is the dependent variable and on the other side there is cash management and budgeting, financial reports and transparency and accountability systems representing the independent variables.

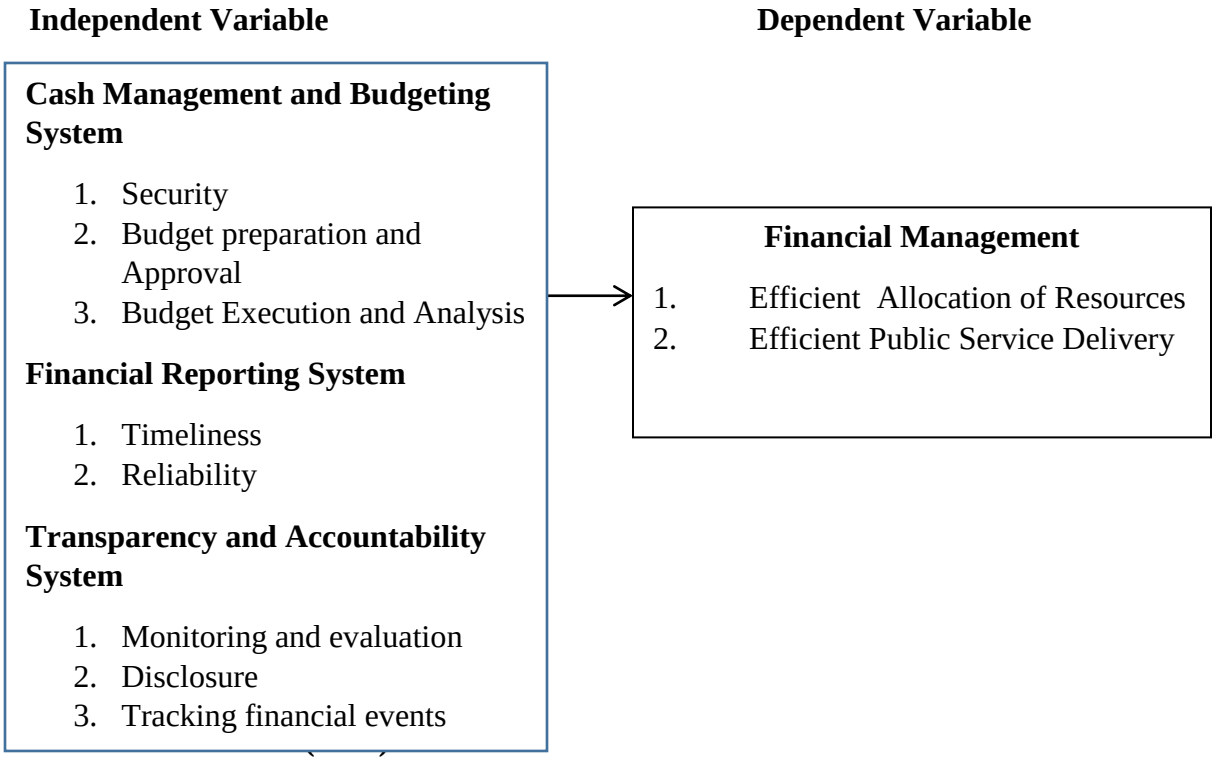

Figure 2.1 Conceptual Framework

The Integrated Financial Management Information System with dimensions of cash management and budgeting system, financial reporting system and accountability and transparency system are characterized by information and resource sharing,, financial planning, budget execution and analysis, financial tracking events, financial reporting objectives and financial controls mechanisms in which its assessment and applicability extents into financial management through strategic allocation of resources, aggregation of fiscal discipline and alongside efficient service delivery

2.6 Summary of Literature Review

The study is built on Meta theory model, contingency theory and system theory. The study will review whether IFMIS enhances credibility and confidence of government budget by ensuring comprehensive and transparency of information and allowing institutionalized and realistic budget formulation across the various government ministries which promotes better control of budget execution. This chapter reviewed the literature associated with IFMIS and financial management. From the reviewed literature in this chapter, most scholars concentrated on different variables of the IFMIS system thus creating a gap on the effect of IFMIS on financial management. The researcher therefore attempts to fill this gap that could unearth different findings from what has already been established.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails the methods and processes that were adopted in seeking answers to the research questions. It provides a synopsis of the research design that were employed, target population of the study, data collection instrument, data collection procedure and methods and data analysis tools that were used.

According to Zikmund et al., 2010, a research methodology describes the technical procedure that is appropriate for the audience, which, is achieved by addressing the research design, data collection methods and data analysis tools. Dawson (2009), indicates that research methodology is the principle that guides the research study

3.2 Research Design

Research design is described as the plan that a researcher uses to answer the research questions (Creswell, 2003). Based on the objectives, it is clear that the research was both quantitative and qualitative. A descriptive research design was applied in this research study. The aim of a descriptive design is to get information that explains a development by asking questions relating to personal perceptions and attitudes (Bryman & Bell, 2015). According to Creswell (2003), a descriptive research design is adopted when data is collected to describe people, organizations, settings and develpoments.

3.3 The Target Population

Mugenda & Mugenda (2003) stipulated that a target population should be clear and unambigous. This will make statements about the target population after the analysis be credible. The study targeted 35 ministry state departments in Kenya, see (Appendix II). A census was adopted due to the relatively low populuation size.

3.4 Data Collection

The study used primary data. This data was collected using structured questionnaires relating to the specific objectives of the study. Use of primary data gave a comprehensive and good understanding of issues relating to integrated financial management information system and financial management.

3.5 Data Analysis

The data pertaining to IFMIS system being qualitative was coded using the numerical scales that were used by the respondent in responding to the questions posed in the questionnaire. This transformed the data into quantitative form that permitted using quantitative methods. Descriptive measures including the measures of central tendency and dispersion were employed in the analysis. This descriptive included mean, standard deviation, coefficient of variation, kurtosis and skewness assisted in exploring the underlying feature in these data.

The data was later subjected to a multi-linear regression equation model to test the relationship between the independent variable, cash management and budgeting systems,

financial reporting systems and accountability and transparency systems and the dependent variable of financial management. The multi-linear regression equation assumed the following form:

$Y=\beta_0+\beta_1X_{1+}\beta_2X_{2+}\beta_3X+\boldsymbol{\varepsilon}$

Where:

Y = Financial management in government ministries (efficient allocation of resources, and efficient public service delivery)

β_0 = Constant

X_1 = Cash management and budgeting systems (security, budget preparation and approval, budget execution and analysis)

X_2= Financial reporting systems (accuracy, reliability, timeliness)

X_3= Organization Accountability and Transparency (disclosure and monitoring and evaluation)

β_1, β_2, β_3, = Slopes of X1, X_2 and X_3 respectively

ε = Error term

3.5.1 Test of Significance

The coefficient of determination (R^2) was used to measure the extent to which the variation in financial management can be explained by the various aspects of IFMIS. This analysis was done using SPSS software.

Table 3.1 Summary of Measuring Variables

VARIABLE	OPERATIONAL DEPARTMENT	HOW TO BE MEASURED	ACADEMIC SOURCE
Budget preparation and approval	Accounts	Number of days required to prepare and approve the budget	(Kinyua, 2003)
Budget execution and analysis	Finance	Timely and accurate budget data	(Kinyua, 2003)
Security	ICT	Risk analysis (file encryption, access control)	(Arsenie-Samoil, 2011)
Timeliness	Accounts	Period taken to prepare and present financial statements to users	(USAID, 2008)
Reliability	Management	Closing balances	(Kythreotis, 2014)
Availability of information	Management	Number of quarterly, half year and annual reports published	(Kythreotis, 2014)
Efficient allocation of resources	Finance	Over expenditure and under expenditure of resources	Controller of budget (2017)
Efficient service delivery	Finance	Number of payments made Period taken for a voucher to be paid	Controller of budget (2017)

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter seeks to interpret the analysis of data and present the results of the findings on the Effect of Integrated Financial Management Information System on the Financial Management in Ministry State Departments in Kenya. The major findings will also be discussed in this chapter.

4.2 Response Rate

This study targeted 35 ministry state departments. Out of the 35 questionnaires that were distributed, 26 were filled and returned. Thus, the response rate was 74.29% which was considered acceptable.

4.3 Descriptive Statistics

This section will discuss the coefficients in the data set which will be a representation of the entire population. This will be broken down into measures of central tendency, standard deviation, coefficient of variation, kurtosis and skewness for each study variable.

Table 4. 1: Overall Descriptive Statistics

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Financial Management (Y)	26	37.00	9.00	46.00	971.00	37.3462	8.34238	69.595
Cash management and budgeting (X_1)	26	12.00	17.00	29.00	653.00	25.1154	2.97088	8.826
Financial reporting (X_2)	26	23.00	11.00	34.00	663.00	25.5000	5.14782	26.500
Transparency and accountability (X_3)	26	17.00	4.00	21.00	416.00	16.0000	4.27083	18.240

Maximum: 50

Minimum: 10

The Likert scale was 1-5 with 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5 - strongly agree.

Financial management had a range of 37 which means that most respondents agreed with the statements posed to them on the various questions. The maximum for this variable was 46 meaning that respondents strongly agreed that IFMIS had an impact on efficiency in service delivery. Cash management had a maximum of 29 which means that most respondents agreed that this variable had an impact in improving financial management, this was similar to the other independent variables. Standard deviation was high on the dependent variable but lower on the independent variables, which means that the responses from most respondents were close to average.

4.3.1 Cash Management and Budgeting Systems

The study sought to establish the effect of cash management and budgeting systems on financial management in ministry state departments.

Table 4.2 Extent to which IFMIS has assisted state department to: secure data from manipulation, control unauthorized access into the system and encrypt files to enhance security

	Secure data from manipulation		Control unauthorized access into the system		Encrypt files to enhance security	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Large Extent	16	61.5	13	50	15	57.7
Medium Extent	10	38.5	11	42.3	11	
Small Extent			2	7.7		42.3
Total	26	100	26	100	26	100

According to the findings on the extent to which the use of IFMIS had assisted ministry state departments to secure data from manipulation, most of the respondents (61.5%) stated that IFMIS had influenced cash management and budgeting systems to a large extent and 38.5% to a medium extent. Half the population felt that IFMIS had assisted to control unauthorized access into the system to a large extent while 42.3% felt that this had been achieved but to a medium extent and 7.7% to small extent. Majority of the respondents (57.7%) felt that IFMIS had assisted in encrypting files to enhance security to a large extent while 42.3% felt that this had been achieved to a medium extent. This means that the aim of implementing IFMIS was being achieved.

4.3.2 Financial Reporting Systems

The study also sought to find out the impact of financial reporting on the financial management in ministry state departments.

Table 4.3 Extent to which the indicators of financial reporting systems affect financial management in ministry state departments

Indicator	N	Mean	SD	C.V	Kurtosis	Skewness
Period taken to prepare financial statements	26	3.6538	1.38397	0.3788	-0.117	-1.082
I can prepare and present financial statements within a short duration	26	3.5769	1.27037	0.3552	-0.58	-0.757
I can easily reconcile transactions in real time using IFMIS	26	3.7692	1.0318	0.2737	0.82	-0.917
IFMIS offers real time financial information that enhances decision making abilities	26	3.9615	1.14824	0.2898	0.22	-0.95
I can rely on IFMIS to extract and present data in ways that facilitate analysis	26	4.1538	0.8339	0.2007	1.804	-1.204
I can rely on IFMIS to derive specific information required to execute my work	26	4.1538	0.99923	0.2522	1.933	-1.221
I can use IFMIS to generate custom reports for internal and external use	26	3.9615	1.04954	0.2843	1.694	-1.118

From the above descriptive statistics on the extent to which indicators of financial reporting systems influence financial management in ministry state departments respondents agreed with the statement that the period taken to prepare financial statements had a mean of 3.6538 with a standard deviation of 1.38397 and coefficient of

variation of 0.3788. Respondents further agreed that there was ease of reconciling transactions in real time using IFMIS as shown by a mean of 3.7692 with a standard deviation of 1.03180. The distribution is moderately skewed with skweness of -0.950. This basically means that the majority of the respondents felt that IFMIS had helped improve financial reporting and financial management.

Respondents further agreed that the system was reliable and this indicator affected financial management as shown by a mean of 4.1538 with a standard deviation of 0.83390.

4.3.3 Transparency and Accountability

The study also sought to find out the impact of transparency and accountability on the financial management in ministry state departments.

Table 4.4: Level of Agreement on whether the use of IFMIS in ministry state departments enhances availability of information

	Use of IFMIS to access quarterly, half year and end year results		**Use of IFMIS to prepare budget forecasts using past data**		**IFMIS offers real time financial information to enhance decision making**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	1	3.8	2	7.7	2	7.7
Disagree	3	11.5	2	7.7	0	0
Neutral	3	11.5	4	15.4	1	3.8
Agree	12	46.2	13	50	12	46.2
Strongly Agree	7	26.9	5	19.2	11	42.3
Total	26	100	26	100	26	100

Majority of the respondents (46.2%) agreed with the statement that the use of IFMIS eased the access of quarterly, half year and end year reports as and when required while 26.9% of the respondents strongly agreed with this statement. However, 3.8% of the respondents strongly disagreed with this statement. Regarding the use of IFMIS to prepare budget forecasts using past data, 50% of the respondents agreed with this statement, 19.2% strongly agreed. However, 7.7% of the respondents strongly disagreed with this statement. Whether use of IFMIS offers real time financial information that enhances decision making, majority of the respondents (46.2%) of the respondents agreed with this statement, while 42.3% strongly agreed with it. However, 7.7% of the respondents strongly disagreed with it.

Table 4.5: Extent to which indicators of transparency and accountability affect financial management in ministry state departments

Indicator	N	Mean	SD	C.V	Kurtosis	Skewness
Use of IFMIS to access quarterly, half year and end year results	26	3.8077	1.09615	0.2879	0.466	-0.97
Use of IFMIS to prepare budget forecasts using past data	26	3.6538	1.12933	0.3091	0.716	1.047
IFMIS offers real time financial information to enhance decision making	26	4.1538	1.08415	0.261	4.162	-1.961

From the above descriptive statistics on the extent to which indicators of transparency and accountability systems influence financial management in ministry state departments, respondents indicated that use of IFMIS to access quarterly, half year and end year reports as and when required, use of IFMIS to prepare budget forecasts and offering real time financial information to enhance decision making influenced influence financial management in ministry state depart as shown by mean of 3.8077 , 3.6538 and 4.1538 respectively, which was considered to be relatively good.

4.4 Correlation Analysis

A correlation analysis was carried out using Pearson correlation to find out the relationship between Financial Management and each of the independent variables (Cash management and budgeting systems, financial reporting systems and transparency and accountability systems). The results of the correlation are highlighted in the table below

Table 4.6: Correlation Analysis between Financial Management and Cash Management and Budgeting Systems, Financial Reporting Systems and Transparency and Accountability Systems

Descriptive Statistics

			Financial Management	X_1	X_2	X_3
Spearman's rho	Financial Management	Correlation Coefficient	1.000	.365	.420*	.318
		Sig. (2-tailed)		.067	.033	.113
		N		26	26	26
	Cash management And budgeting	Correlation Coefficient		1.000	.726**	.616**
		Sig. (2-tailed)			.000	.001
		N			26	26
	Financial reporting	Correlation Coefficient			1.000	.634**
		Sig. (2-tailed)			.	.001
		N				26
	Transparency And accountability	Correlation Coefficient				1.000
		Sig. (2-tailed)				

A correlation analysis was done on the 4 variables (independent and independent). Spearman's rho correlation was used to determine the relationship between independent variables and dependent variable. The test was done at correlation significance at the 0.05 level (2-tailed). From the findings financial management had a showed a correlation coefficient of 0.365, 0.420, 0.318 on, cash management and budgeting, financial reporting and transparency and accountability respectively. This was at 0.067, 0.033 and 0.113 significance level. This indicated a positive and significant relationship between the variables.

Cash management and budgeting systems showed a correlation coefficient of 0.726*, 0.616** on financial reporting and transparency and accountability respectively with .000 and .001 significance levels. This means there is a strong and positive relationship between these variables

Financial reporting systems showed a correlation coefficient of 0.726 and 0.634** on cash management and budgeting systems and transparency and accountability systems respectively with 0.033 and 0.001 significance levels. This means there is a strong and positive relationship between these variables.

Transparency and accountability showed a correlation coefficient of 0.318 and 0.616** on cash management and budgeting systems and financial reporting systems respectively with 0.113 and 0.001 significance levels. This indicates a strong and significant relationship between the variables.

Spearman's correlation requires that for an item to be significant it must show a significance of less than the threshold which in this study was 0.05. From the findings all the variables were positively correlated to each other at different significance levels.

4.5 Regression Analysis

A multiple regression analysis was used to measure the influence among predictor variables.

Table 4.7: Model Summary

Model	R	R-Squared	Adjusted R-Squared	Standard Error of the Estimate
1	0.625	0.391	0.308	6.94003

R-squared is a statistical measure of how close the data is to the fitted regression line. It basically gives an estimate of the strength of the relationship between a model and the response variable. Adjusted R-squared on the other hand is a modified version of R-squared that has been adjusted for the number of predictors in the model. From the results above generated by SPSS, 30.8% of the changes in financial management in ministry state departments could be as a result of the overall effect of the predictor variables.

Table 4.8: Summary of One-way ANOVA Results

Model		Sum of Squares	df	Mean Squares	F	Significance
1	Regression	680.227	3	226.759	4.708	0.011
	Residual	1059.608	22	48.164		
	Total	1739.885	25			

There was a statistically significant regression relationship of 0.011 in predicting how cash management and budgeting systems, financial reporting and transparency and accountability influenced financial management in ministry state departments in Kenya. F calculated at 5% level of significance was 4.708. This means that the overall model was significant since F calculated was more that the F critical.

Table 4.9: Regression coefficients of the Relationship between Financial Management in Ministry State Departments and Cash Management and Budgeting Systems, Financial Reporting Systems and Transparency and Accountability

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.446	.172		2.598	.010
	Cash management and budgeting (X_1)	.083	.018	.248	4.568	.000
	Financial Reporting (X_2)	.181	.019	.467	9.402	.000
	Transparency and accountability (X_3)	.023	.012	.082	1.900	.009

Using the SPSS generated output, the equation: ($\mathbf{Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X + \varepsilon}$) becomes:

$\mathbf{Y= 0.446 + 0.083X_1 + 0.181X_2 + 0.023X_3 + \varepsilon}$

The above regression equation shows that taking all factors into consideration, that is to say, cash management and budgeting systems, financial reporting systems and transparency and accountability systems, constant at 0, financial management in ministry state departments will be affected up to 0.446. The results presented above also show that considering all other independent variables at 0, 1-unit increase in cash management and budgeting systems would result to 0.083 increase in the overall financial management in ministry state departments. Similarly, an increase of 1 unit in financial reporting would result to an overall increase of 0.181 in financial management in ministry state departments and an increase of 1 unit in transparency and accountability would result to an overall increase of 0.023 in financial management in ministry state departments. Overall, financial reporting had the largest effect on financial management followed by cash management and budgeting system and transparency and accountability. This

basically means that all the independent variables are positively and significantly related with the dependent variable.

4.6 Discussion of Research Findings

The regression model established indicates that taking all factors (independent variables) into consideration and constant at 0, 1 unit of increase in cash management and budgeting systems, financial reporting and transparency and accountability, would result to an overall increase in financial management in ministry state departments by 0.083, 0.181 and 0.023 respectively.

This study established that the coefficient for cash management and budgeting systems, financial reporting systems and transparency and accountability had a positive and significant influence on financial management in ministry state departments. It also established that the indicators for this variable, that is, security from data manipulation, controlling unauthorized access and encrypting data influenced the financial management in ministry state departments to a significant extent. This is in line with a study conducted by Dorotinsky (2003) who found out that there could be other alternatives in which IFMIS can improve public financial management by enhancing credibility and making information transparent.

Another study conducted by Simson et. al., (2011) found out that in order to manage the flow of cash within government entities and to avoid accrued expenses leading to huge debts, it would be vital to observe future payments. Chuma (2014) in his study on IFMIS

and its effect on cash management in Eldoret West District Treasury, Kenya, revealed that a reliable system is one that is timely, accurate and consistent in collecting information. This study concluded that IFMIS should be secure from manipulation and should control unauthorized access so that it can achieve the aim of managing cash efficiently.

The study established that the coefficient of financial reporting was 0.181. This indicates a positive and significant influence on financial management in ministry state departments. The indicators of financial reporting, that is, timely and reliable reports had a significant impact. This is consistent with the findings of Thurakam (2011) who found out that financial reporting ought to be accurate, prompt and relevant to be relied upon to make decisions. This is also in line with Simson et. al., (2011) who indicated that financial reporting systems should have a function of extracting and presenting data from the system in such a way to facilitate analysis. Kibui (2013) conducted a study on financial literacy and financial management of youth enterprise development fund in Konoin constituency in Kenya. The study found out that the level of financial literacy among the youth was low which caused low level of financial knowledge, little or no exposure to managing finances and also their level of education, which indicated that low level of financial knowledge may lead to unreliable and irrelevant financial reports.

Finally, this study established that the coefficient of transparency and accountability systems was 0.023, meaning that this variable had a positive and significant impact on the financial management in ministry state departments. This study also revealed that the

indicators of transparency and accountability, such as; availability of various reports, ability to use past published data to prepare budget forecasts and availability of real time financial information affected financial management to a significant extent. This is consistent with the findings of Diamond and Khemani (2005) who found out that in Tanzania, the benefits of IFMIS have had a great impact and improved the levels of transparency and accountability.

This study further revealed that there has been an improvement in efficiency, allocation of state resources, transparency and accountability and management of finances within ministry state departments basing on the mean scores of each of the indicators of financial management. This is consistent with Chado (2015) whose study found out that IFMIS had to a very large extent contributed to the improvement of financial management in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a report on the summary, conclusion, recommendations of the study, the limitations of the study and areas for further research.

5.2 Summary of the Findings

IFMIS was meant to automate government transactions which were lengthy and cumbersome as well as a public financial management reform to help improve the financial management within government entities.

This study sought to establish whether IFMIS had helped the government to manage their resources better. The specific objectives of this study were to analyze the effectiveness of; cash management and budgeting systems, financial reporting systems and accountability and transparency systems in IFMIS on the financial management in ministry state departments in Kenya.

The study adopted a descriptive research, with a target population of 35 ministry state departments in Kenya. The study used primary data which was collected using structured questionnaires relating to the specific objectives of the study. This data was first coded and later analyzed in a quantitative manner according to the statistical information derived from the research questions. Descriptive and inferential analysis techniques were used to test the study hypotheses. Descriptive analysis involved estimation of mean, standard deviation, coefficient of variation, kurtosis and skewness for all the variables.

The inferential analysis comprised of correlation analysis, ANOVA and multiple regression. The coded data was later subjected to a multiple regression equation model to test the relationship between the variables.

From the findings, cash management and budgeting systems showed a correlation coefficient of $0.726^{*,}$ 0.616^{**} on financial reporting and transparency and accountability respectively with .000 and .001 significance levels. This means there is a strong and positive relationship between these variables. Financial reporting systems showed a correlation coefficient of 0.726 and 0.634^{**} on cash management and budgeting systems and transparency and accountability systems respectively with 0.033 and 0.001 significance levels. This means there is a strong and positive relationship between these variables. Transparency and accountability showed a correlation coefficient of 0.318 and 0.616^{**} on cash management and budgeting systems and financial reporting systems respectively with 0.113 and 0.001 significance levels. This indicates a strong and significant relationship between the variables. In general, improving on these independent variables would result to a positive and significant change to the dependent variable.

5.3 Conclusions

This study sought to examine the influence of IFMIS on financial management in ministry state departments in Kenya. The components of IFMIS considered in this study were cash management and budgeting systems, financial reporting systems and transparency and accountability systems, focusing on 35 ministry state departments for a period of one year.

The study concludes that all independent variables had a significant relation with financial management. It further concludes that, cash management and budgeting systems has a positive and significant relationship with financial management. This means that, to achieve better results in financial management, this variable should be improved and much focus put on the period that budgets take to prepare to enhance efficiency. This was consistent with the findings of Dorotinsky (2003).

This study concludes financial reporting systems had a positive and significant relationship with financial management. To improve financial management, managers should ensure that IFMIS is used to generate reports and ensure that staff are well trained on using the system to enable them use it efficiently to generate timely and reliable reports. It was found out that the indicators of financial reporting (timely and reliable reports) influenced financial management in ministry state departments to a significant extent. This is consistent with the findings of Thurakam (2007) which stated that for financial reports to be meaningful, they have to be prompt and reliable.

This study also concludes that transparency and accountability systems had a positive and significant relationship with financial management. To improve on financial management, managers should ensure that reports are easily available to help users of information to make reliable decisions. The indicators of transparency and accountability (availability of reports, ability to prepare budget forecasts using past data and availability of real time financial information which enhances decision making) were found to have influenced financial management in ministry state departments to a significant extent. This is consistent with Diamond and Khemani (2003) who found out that in Tanzania, the

benefits of IFMIS had been extensive and improved levels of transparency and accountability.

Finally, this study concludes that IFMIS has improved in the management of financial resources, controlling financial resources and tracking of financial events and transactions which improve efficiency in service delivery and in the long run financial management. This is consistent with the findings of Chado (2015) who found out that IFMIS had contributed to improving financial management in Kenya.

5.4 Recommendations

This study recommends that ministry state departments should use IFMIS not only as a way of conforming with technology by automating all functions, some of which need not be automated as they have no impact on financial management but rather as a public financial reform that affects how transactions are run across ministry state departments.

It also recommends that the decision makers in the various state departments should use information generated from IFMIS to plan and forecast budgets, examine the variances of actual outcome against the budget plan, monitor the use of fixed assets, track the performance of various departments and make adjustments as deemed fit. Reports can also be generated in a way that meets the requirements of specific donors and other international institutions. It further recommends that proper training be conducted to users to enhance their skills and help them increase their ability to prepare financial statements within the shortest time possible to facilitate in timely decision making.

Finally, the study recommends that ministry state departments should ensure there a proper system to enhance financial performance. It further recommends that management

for ministry state departments in charge of IFMIS integration should improve reward systems as it motivates the staff who interacts with the system and in the long run improves financial management.

5.5 Limitations of the Study

This study used primary data, which involved distribution of questionnaires to accountants and finance officers across the 35 ministry state departments for a period of one year. This period was not enough to access the efficiency of IFMIS.

Another limitation experienced by the researcher was that some respondents were reluctant to respond to the questionnaires. Some thought they were being investigated. This took a lot of time and trips to the various state departments in-order to convince them to respond. This increased the budget for the researcher.

Other respondents took long to complete the questionnaires and this was time consuming. As a result, the researcher had to proceed without getting response from 9 ministry state departments. Other respondents felt that the information the researcher was asking for was confidential to be disclosed and hence they were reluctant to respond. The researcher's efforts to convince them to respond by presenting a letter from the University stating that the data collected was purely for research were futile.

5.6 Recommendations for Further Research

This study was conducted to find out the Effect of IFMIS on Financial Management in Ministry State Departments in Kenya. Further studies could be conducted in the various public sector institutions such as state corporations and county governments. This study used primary data. Future studies should be conducted where either use of secondary data could be used or a combination of both primary and secondary data which could disclose other findings which were not found out in this study.

The NT has carried out re-engineering of the system. The impact of this development could bring up other variables which can be significant and unearth other findings. Thus, further research could be conducted to establish whether this re-engineering has had any impact and new developments in the interaction of the system.

The researcher analyzed 3 major variables which were believed to have significantly affected IFMIS. Further research could be conducted by incorporating more or other variables. The study used primary data for one year. Further research could be carried out incorporating both primary and secondary data for a longer period. This could give different findings from those in this study.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Introduction

This questionnaire is intended for use in collecting data in pursuit of the objectives of the study titled "The Effect of Integrated Financial Management Information System on the Financial Management in Ministry State Departments in Kenya". It has four sections each containing questions on integrated financial management information systems and benefits of integrated financial management information systems on financial management. Kindly complete the questionnaire as per the instructions. Your participation is highly appreciated.

Name of the Ministry State Department ……..

Does your job involve the use of IFMIS?

Yes ☐ No ☐

SECTION A: CASH MANAGEMENT AND BUDGETING SYSTEMS

1. Please state the extent to which IFMIS has assisted your department to:

No.	Statement	Large extent	Medium extent	Small extent	No extent
1	Secure data from manipulation				
2	Control unauthorized access into the system				
3	Encrypt files to enhance security				

2. How long do budgets take to be prepared and approved using the IFMIS system:

Period	**Please tick one**
Up to 1 week	
Over 1 week up to 2 weeks	
Over 2 weeks up to 3 weeks	
Over 3 weeks up to 4 weeks	
Over 4 weeks	

3. Do you agree with the following statements?: 5= Strongly agree 4 = Agree 3= Neutral 2= Disagree 1= Strongly Disagree

No.	Statement	1	2	3	4	5
1	IFMIS ensures there is adherence to the budget plan by providing the ceilings for each vote head					
2	IFMIS seek to improve execution by providing timely and accurate data for budget management and decision making					
3	Use of IFMIS ensures proper budget execution and analysis					

SECTION B: FINANCIAL REPORTING SYSTEMS

4. How long does it take to prepare financial statements and reports using the IFMIS system

Period	**Please tick one**
Up to 1 week	
Over 1 week up to 2 weeks	
Over 2 weeks up to 3 weeks	
Over 3 weeks up to 4 weeks	
Over 4 weeks	

5. Reports are easily generated from the IFMIS system as and when required: 5= Strongly agree 4 = Agree 3= Neutral 2= Disagree 1= Strongly Disagree

No.	Statement	1	2	3	4	5
1	I can prepare financial statements and present to the management within a short duration of time					
2	I can easily reconcile transactions in real time using IFMIS					
3	IFMIS offers real time financial information that enhances my decision-making abilities					

6. IFMIS is relied on to provide accurate and up-to-date reports: 5= Strongly agree 4 = Agree 3= Neutral 2= Disagree 1= Strongly Disagree

No.	Statement	1	2	3	4	5
1	I can rely on IFMIS to extract and present data in ways that will facilitate analysis					
2	I can rely on IFMIS to derive specific information required to execute my work					
3	I can use IFMIS to generate custom reports for internal and external use					

SECTION C: TRANSPARENCY AND ACCOUNTABILITY

7. Does the use of IFMIS in ministry state departments enhance the availability of information**:** 5= Strongly agree 4 = Agree 3= Neutral 2= Disagree 1= Strongly Disagree

No.	**Statement**	**1**	**2**	**3**	**4**	**5**
1	I can use IFMIS to access quarterly, half year and end year results as and when required					
2	I can easily use IFMIS to prepare budget forecast using past data					
3	IFMIS offers real time financial information that enhances my decision-making abilities					
4	I can comfortably use IFMIS to trace financial events and transactions					

SECTION D: FINANCIAL MANAGEMENT

8. Do you agree with the following statements? 5= strongly agree 4 = Agree 3= Neutral 4= Disagree 5= Strongly Disagree

No.	Statement	1	2	3	4	5
1	IFMIS has enhanced efficiency in service delivery by reducing the period taken for a voucher to be paid					
2	IFMIS has increased efficiency and thus the number of payments at cash office have increased					
3	IFMIS has enhanced efficient allocation of resources and thus variances in the state departments have reduced					
4	IFMIS has shortened the period taken to prepare financial statements					
5	All financial transactions are initiated, processed and printed from IFMIS to reflect the budget thus increases accountability					
6	IFMIS ensures that budget ceilings are adhered to					
7	E-payment in IFMIS has helped reduce cash shortages and thus enhanced better management of finances					
8	Automated bank reconciliation statements has simplified the management and monitoring of bank accounts					
9	All payment approvals are carried out in IFMIS thus increasing transparency					
10	IFMIS has shortened the period taken to prepare and approve budgets thus increasing efficiency					

THANK YOU

APPENDIX II: MINISTRY STATE DEPARTMENTS IN KENYA

1. State Department for Interior
2. State Department for Correctional Services
3. State Department for Defense
4. State Department for Investment and Industry
5. State Department for Cooperatives
6. State Department for Trade
7. State Department for Planning and Statistics
8. State Department for Devolution
9. State Department for Special Programmes
10. State Department for Broadcasting and Telecommunication
11. State Department for Information Communication Technology and Innovation
12. State Department for Sports Development
13. State Department for Arts and Culture
14. State Department for Basic Education
15. State Department for University Education
16. State Department for Vocational and Technical Training
17. State Department for East African Community Integration
18. State Department for Labor
19. State Department for Social Protection
20. State Department for Transport
21. State Department for Infrastructure
22. State Department for Housing and Urban Development
23. State Department for Maritime and Shipping Affairs
24. State Department for Public Works
25. State Department for Environment
26. State Department for Natural Resources
27. State Department for Water Services
28. State Department for Irrigation
29. State Department of Energy
30. State Department for Petroleum
31. State Department for Agriculture
32. State Department for Livestock
33. State Department for Fisheries and the Blue Economy
34. State Department for Public Service and Youth Affairs
35. State Department for Gender Affairs

Source: Kenya Government Website

APPENDIX III: TURNITIN REPORT

Turnitin Originality Report
THE EFFECT OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM ON THE FINANCIAL MANAGEMENT IN MINISTRY STATE DEPARTMENTS IN KENYA by Peninah Wanjiru Muthoni
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