THE IMPACT OF INTEGRATED FINANCIAL SYSTEM ON FINANCIAL MANAGEMENT OF PUBLIC SECTOR IN KENYA: A CASE OF THE NATIONAL TREASURY

BY

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DECLARATION

This research project is my original work and has not been submitted to any other university or institution of higher learning for any academic award.

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This research project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

I dedicate this research project to my parents Mr. Samuel Wamalwa and Mrs. Nancy Nekesa for their love, moral support and inspiration. I also dedicate this work to my siblings for their encouragement and prayers.

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LIST OF ABBREVIATIONS

ALRMP – Arid Land Resource Management Projects

ERP – Enterprise Resource Planning

GOK – Government of Kenya

ICT – Information and Communication Technology

IT – Information Technology

IFMIS – Integrated Financial Management Information System

IMF – International Monetary Fund

OECD – Organization for Economic Cooperation and Development

PEOU – Perceived Ease of Use

PFM – Public Financial Management

PU – Perceived Usefulness

SD _ Standard Deviation

SIBET – Soft Issue Bid Evaluation Tool

SPSS – Statistical Package for Social Sciences

TAM – Technology Acceptance Model

ABSTRACT

Public financial management practices have been characterized by challenges in revenue mobilization, lack of clarity and responsibility in the use of public funds. These problems have attributed to persistent increase in budget deficits, public debts and poor governance. Integrated financial management information system is an essential tool in the management of financial resources in an organization. Integrated financial management information system is implemented with the aim of connecting all the departments of the organization to a core network. The integration of different functions and entities within the shared database provides managers with tools for planning and control of public resources. The objective of the study was to determine the impact of integrated financial management information system on financial management of the public sector in Kenya. This study was anchored on two theories; the technology acceptance model and systems theory. The study adopted a descriptive research design. The target respondents were 45 respondents from the national treasury. Primary data was collected from the respondents using structures questionnaires through drop and pick method. The questionnaires had three sections; Section A of the questionnaire contained the general information. Section B sought to obtain information on the factors affecting management of financial resources through IFMIS while section C of the questionnaire sought to obtain information concerning the impact of IFMIS implementation. The data collected was analyzed using both descriptive and inferential statistics such means and standard deviation with the aid of Statistical Tool for Social Sciences (SPSS) version 2. Before subjecting the data to inferential statistics the accuracy of the data was evaluated using different diagnostic tests to establish any errors which could have led to biasness in the interpretation of results. This enhances the reliability and validity of the data. The inferential statistics was undertaken by performing a regression analysis on the dependent variable (financial management) and the independent variables (budgeting, internal controls and financial reporting). The study found that integrated financial management information system have a significant effect on financial management at the national treasury. This was evidenced by a value of 0.016 at 95% confidence level. This shows that the model adopted for this study was significant. The study recommends that financial management should involve development and implementation of strong and reliable integrated financial systems with well-coordinated and defined components such as budgeting, internal control and financial reporting so as to promote favorable and more productive financial management practices.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

A well-built and operational fiscal management structure is a conduit for financial viability as well as improvements (Ajayi & Omirin, 2007).A functional financial system is therefore an asset to various departmental managers as it enables them to combine efforts when it comes to raising, managing and expending of organizational resources, with the aim of raising the living conditions of the citizens (Odoyo, Adero & Chumba, 2014).High debt levels in under developed countries became unsustainable forcing countries to approach the IMF and the World Bank for support. As a result, the aid organizations and other financial institutions started exerting considerable influence in many areas of policy making, one of them being public sector financial management (Saprin, 2004). Public financial reforms are recognized as the principles that lead to a well-organized public institution. The reforms therefore enhance efficiency of services that are delivered to the citizens and also create employment opportunities to the youths (Asselin & Srivastava, 2009).

Some of the western countries such as Britain and Australia carried out major reforms in their financial systems by eliminating outdated bureaucratic models with up to date controllable ones (Sigel, 2013). The introduction of information communication technology (ICT) and the internet has forced companies to shift their operations from traditional way to a virtual automated system (Carabello, 2007).

Governments are taking responsibility of transforming their financial sector through the establishment of financial reforms (Wafula & Wanjohi, 2009). To achieve the revitalization and the transformation, governments are introducing innovations in their managerial structures and practices so that they position, organize and exploit human, monetary and ICT resources (United Nation, 2011). Main objective of public sector financial management is to make sure there is optimal distribution of resources and efficient and effective use of those resources (World Bank, 1998).

According to both Ameen and Ahmed (2011), information communication technology in the public sector is an important tactical tool that is used in elating public sector performance, increases efficiencies and effectiveness in managerial operations and service delivery, improves synchronization across organizational boundaries and level of administration, greater responsibility in management functions and enhanced communication.

An organizational advancement that is made up with a combination of information and communication ensures that there is efficient information dispensation and communication in an orderly manner. The combination of information processing and management in an organization is a valuable technique in the management of data (Goll, 2003).

Majority of the developing countries suffer from ineffective revenue administration systems, improper allocation of resources and poor delivery of essential public services due to inadequate and dysfunctional control systems (Cragbe, 2012). Kobia (2006) pointed out that constraints and ineffective service delivery is detrimental to the quality of life of the citizens and the nation's advancement process. This has led institutions in

the third world countries to progressively investigate the techniques that will be incorporated in the financial system to improve and develop the financial sector. The countries have invested heavily on information management systems so that they can benefit from advances in information technology which enables organizations to redefine business processes and models to promote efficiency, accountability, effectiveness, precision, safety of data administration and comprehensive financial coverage (Heo, 2013).

The financial management system in Kenya has undergone key improvements with the core objective of improving the quality of services administered to citizens (Gok, 1997). In the year 2003 the government began the implementation of financial reforms that could enhance proper use of public resources and also strengthen institutions of governance (Ayoti, 2012). One of those reforms incorporated the government financial management Act which was formulated to offer insight to the management on issues related to management of government resources and utilization of such resources in an optimal manner. The financial act also provides for other related matters (Government financial management Act, 2004).

The reforms target core public financial management systems on financial planning and implementation, revenue mobilization, legislative omissions, personnel and allowance as well as financial management (Gok, 2011). The aim of these reforms is to build up the public financial management systems to enhance the openness of payment procedures. The reforms are also helpful in the fight against fraudulent activities and uneconomical spending (Ajayi & Omirin, 2007).

The introduction of E-government within the government operations has led to the acceptance and realization of integrated financial management information system. The integrated system has been influential in sustaining the attainment of financial control, value for money, effectiveness in allotment and utilization of public resources and integrity in the use of the allocated funds (Dorotinsky & Cho, 2003).

1.1.1 Integrated Financial Management Information System

The Integrated Financial System (IFMIS) was first introduced in Kenya by the former ministry of finance and now national treasury in the year 1998, even though the official use of the system in most ministries took place in 2013.According to the government, an oracle is system that integrates information and procedures of an institute into a cohesive structure (ROK, 2011).

The automation of financial organizational procedures from budget preparation and execution to reporting, reduces graft and fraud issues (Lianzuala & Khawring, 2008). According to Rozner (2008), IFMIS is an information system that tracks financial events and summarizes financial information. The system supports timely financial reporting, making of strategic decisions and enhancement of internal control in an organization.

The functionality of integrated financial management information system has some variations that emerges from the basic general ledger accounting applications to a more complex system that covers budgeting, accounts receivable, accounts payable, cash management, debt, asset and liability management, procurement and purchasing, revenue management, human resource management and payroll (Rozner, 2008). According to both Diamond and Khemani (2006), the integrated financial system plays an important

part in an organization by making sure that there is connection, accumulation and processing of data. The processed information thereafter is made available to all the departments for the required course of action to be undertaken. A well-integrated system, with the help of government supervision can greatly improve the delivery of services to the public (Shaw, 2010).

IFMIS also assists the management of various institutions in promoting accountability by ensuring that the allotment and use of public funds are done in a professional and efficient manner. The organization is thus able to come up with better mechanisms that control expenditure and improve accountability in the budget cycle (Wainaina, 2014). The system is also capable of minimizing fraud and corruption cases in an organization (Reneau & Grabski, 1987).

The structure of IFMIS is designed in a way that the system is able to improve the compatibility and consistency of financial information and also in the reduction of government expenses (Diamond & Khemani, 2005).Sabatini (2012) argues that, governments all over the world have adopted the computerized payment systems which have significantly enhanced the effectiveness, efficacy, safety, convenience and fiscal control. The development consequently has improved the confidence levels of the stakeholders.

1.1.2 Financial Management

Financial management takes the central position among various management areas and it is very crucial in many institutions. The growth of many institutions in terms of asset and profit depends on how well the financial resources are allocated and utilized (Accounting

School Online, 2012).Financial management is an area that enables an organization to move in the right direction through proper selection and use of capital (Gitman, 2011). Financial management practices includes: the management of working capital, accounting, accounting information, risk and capital budgeting (Hunjra, Khan & Rehma, 2011). Capital budgeting decisions enables an organization to invest in fixed assets and the management of working capital. Working capital ensures that the organization has enough liquid to run its daily operations and pay its debts (Gitman, 2011). Policy formulation is an important stage in financial management because it brings to reality the society desires and strategies (Premchand, 1999). Financial management ensures that timely reports are made available to various interested parties thus enabling them to make better decisions (James & John, 2008). The advancement in the field of financial management has led to continuous improvement approaches, better administration and proper guideline of financial products (Galera, 2011). There is no institution that can become profitable without proper management of its financial resources (Allis, 2004), therefore the field of financial management should be greatly advanced in order to develop the process of resource management (Rosen, 2002).

1.1.3 IFMIS and Financial Management

Integrated financial management information system is an essential tool in the management of financial resources in an organization (Adwin & Opkara, 2014). Integrated financial management information system is implemented with the aim of connecting all the departments of the organization to a core network. The combination of diverse functions and units within the common database provides managers with tools for planning and regulation of public funds (Public financial management act, 2012).

The integration of technology and the accounting systems provides an opportunity for customization of financial reports that are able to meet the needs of the internal users and the development partners (Sloan, 2001). The aim of integrating technology and the management systems is to monitor the economic activities of an organization, enable processing of data that is in line with the accounting standards and delivery of accurate information for decision making (Laudon & Laudon, 2009).

The integrated financial management information system has made it possible for the adoption of a new approach to the management of records. The electronic file has eliminated the issue of paper work and embraced the computerized system that enables fast and easy retrieval and transfer of financial information (Evans, 1990).

Automation of financial activities in an organization helps in the improvement of consistency of information, efficiency in financial control and expenditure management procedures and improved checks and balances (Nzuve, 2012).

1.1.4 Public Sector in Kenya

The public sector in Kenya is made up of the central government, county governments, development partners and the public corporations. The Kenya national government is authorized to act based on the legal constitution in ensuring the protection and wellbeing of its citizens (Gok, 2005). The objectives of the public sector is to enhance quality and effectiveness of public service delivery, strengthen management systems and processes in government, enhance the capacity of public service leadership and management and the transformation of culture and attitude of public service employees (Vision, 2030).

The government is run by ministries and is given the task of formulation and implementation of fiscal and economic strategy (Gok, 2014). The ministries therefore are charged with the responsibility of optimal utilization of public funds with the aim of improving the living standards of the citizens (Mutui, 2014). This therefore has encouraged the development of a number of improvements that are aimed at increasing responsibility and transparency (Gok, 2011). The reforms address the issue of ineffectiveness in the use of public funds and therefore propose control measures that should be incorporated into the system to strengthen weak governance (Ayoti, 2012).

The need for transparency and accurate financial administration of public resources has led to the introduction of integrated financial management information system as a PFM reform initiative (World Bank, 2014). The main aim of the reform was to improve financial control through computerization of government operations (Njenga, 2013). The integration of government operations in all government organizations has positively impacted on the effectiveness, safety of data and comprehensive financial reporting (Peterson, 2006).

The Kenyan government has embraced the use of IFMIS in most government ministries and other governmental organizations to encourage proper management of financial resources (Kang'ethe, 2002). According to Minani (2012); IFMIS platform has enabled the government to adhere to the rules and convention that govern the reporting standards. This has in turn improved accuracy and timeliness of financial reporting. The integrated financial management information system has enabled government officials to comply with rules and procedures of financial reporting therefore reducing the risk of mismanagement of public funds (Gok, 2000). The government therefore is able to use

IFMIS to consolidate all the information needed into one information database (Gok, 2003).

IFMIS systems is designed to enhance accessibility of quality financial information that is critical to various processes in the public sector such as auditing activities, accounting, cash management and budgeting (Dorotinsky & Matsuda, 2001). IFMIS provides a platform where all government operations are automated and broken down into packages that improve effectiveness and transparency of public resources (Hove, 2010). The integrated financial management information system has turned out to be an essential benchmark that is used in most organizations to gauge how the management allocates and utilize public resources (Diamond & Khemani, 2005).

1.2 Research Problem

Public financial management practices have been characterized by challenges in revenue mobilization, lack of clarity and responsibility in the use of public funds. These problems have attributed to persistent increase in budget deficits, public debts and poor performance of the economy (Shah, 2006).

The Kenyan government has been performing poorly in the area of financial management due to weakness in management of financial information. The reduced performance in the financial sector was due to lack of timely and reliable information that was critical in the process of decision making (Kinyua, 2003).

Most countries that are in their development phase have either been using old and inadequately maintained accounting software applications or executing their budget manually. This persistent problem has negatively impacted the functioning of public

expenditure management system on budgeting. This therefore led to misallocation of financial resources, poor control over financial resources, increment of debts, excessive borrowing, high interest rates and hence poor service delivery to the public (Diamond & Khemani, 2005). The world bank froze the funding of the arid land resource management program (ALRMP) that was put in place to alleviate the effects of drought and poverty in dry areas in Kenya due to cases of fraud and corruption (World Bank, 2010).

The information communication technology master plan of 2001 to 2005 also pointed out that the soft Bid Evaluation tool (SIBET) system that was in use at that particular time was very weak and there was need to come up with a different system that would incorporate accounting, asset management and revenue management as well as establishing interface with the income collection authority and human resource management models (Imbuye, 2012).

The need towards improvement of effectiveness in the public sector has seen governments around the world adopt combined financial management systems (Charko, 2010). The emergence of information and communication technology has played a crucial role in combating graft, promoting greater comprehensiveness and transparency. A completely operational IFMIS can advance governance by providing real time fiscal facts and improve transparency and accountability, reducing administrative discretion and acting as a deterrent to graft and fraud (Diamond & Khemani, 1999).

Conrad (2013) on his study of evaluating the implementation of IFMIS by the national government of Kenya found out that there were some challenges in the adoption of IFMIS. He also found out that the exchequer budget release of funds did not coincide with the manual funds release. Another study done by Kaindi (2012) on the influence of

IFMIS on internal control systems and financial performance, failed to outline specific benefits that would be realized when adopting the IFMIS system.

Most researchers focused their studies on the process of IFMIS implementation and the level of adoption. The researcher therefore seeks to expand the knowledge by establishing the impact of IFMIS on financial management in the public sector by finding out if the use of the system can address the problems in financial management that includes: poor accountability of public funds, lack of timely submission of financial reports and lack of financial record management.

1.3 Objectives of the Study

1.3.1 Main Objective

The study described the impact of integrated financial system on financial management of the public sector in Kenya.

1.3.2 Specific Objectives

i)   To analyze the effectiveness of IFMIS on budgeting.

ii) To determine how internal control systems in IFMIS affect financial management in the public sector in Kenya

iii) To verify the effects of financial reporting systems in IFMIS on financial management in the public sector in Kenya

1.4 Value of the Study

The research will be beneficial to the following stakeholders:

1.4.1 Government of Kenya

The government of Kenya could use this report as an independent, objective assessment of the gain that has accrued since the application of the integrated financial management information systems. The findings of the study could inform policy development in planning, designing and implementation of a sound public finance management system.

1.4.2 Researchers and Scholars

This study would add to the body of knowledge on the association between electronic transaction and financial management in the public sector. The research will also expand the existing knowledge on the impact of integrated financial management on financial management by suggesting areas of study for future researchers besides being cited as empirical evidence by future scholars and researchers.

1.4.3 Citizens

This study would be useful to the citizens of Kenya. Through the implementation of IFMIS the Kenyan citizens would demand for better management of financial resources and therefore get services that are of high quality.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter review literature that is related to electronic financial transaction with specific focus on financial management. The literature is presented in two major sections. The first section represents the theoretical framework which will be used to analyze the study. The second section is a review of empirical literature on the impact of IFMIS on financial management. This chapter ends with a summary of the literature.

2.2 Theoretical Framework

Two theories were used to explore the relationship between integrated financial management information system and financial management in the public sector. These are Technology acceptance model and systems theory.

2.2.1 Technology Acceptance Model

Technology acceptance model is an information system theory that was originally advanced by Davis (1989). According to Venkatesh (2003), the technology acceptance model was established specifically to project acceptance of information knowledge and its use in the work place. The model is based on the attitude paradigm from psychology which specifies how to measure behavior, distinguish between beliefs and attitude and explanation of their linkage (Fisbein & Ajzen, 1975). Technology acceptance is the utmost common model that is used to predict the acceptance of information technology in an organization and how it is used by different employees. The main aim of technology acceptance model is to provide a generic base to investigate information technology

determinants and explain their behavior through a wide range of conceptual technologies (Davis, 1989).

Technology acceptance model comprises of two major theoretical frameworks namely: the perceived usefulness and perceived ease of use. The perceived usefulness is the degree to which employees trust that using a certain system would improve their work performance while, perceived ease of use is the degree of easiness that an employee would have when using a certain system (Davis, 1989).

Davis (1986) urges that perceived usefulness has a substantial direct influence on perceived ease of use. PU therefore can significantly influence both the satisfaction and the attitude towards technology whereas PEOU greatly impacts on both PU and acceptance intentions. These two internal factors are also influenced by social, cultural and political factors. When the benefits of using a particular type of technology increases the level of performance will increase because, individual users will put even more efforts to realize better results (Chutter, 2009).

The relationship between perceived usefulness and use intentions is based on the idea that, in an organizational context people form intentions in relation to behaviors which they believe will increase their work performance (Warshow,1989). Although the model has various shortcoming such as lack of consideration of the attitude of the individual user towards a particular type of technology and the level of training (Davis, 1989), this study adopts it in determining how IFMIS can be used in organizations to ensure that there is sound financial management in the public sector. The value and suitability of IFMIS will ascertain how the staff will accept the system as well as management.

2.2.2 Systems Theory

Ludwig Von Bertalanffy is accredited with being the originator of the form of systems theory. Systems theory is a collection of elements that are interrelated and work in cooperation to attain a desired objective (Kang'ethe, 2002). Systems are generally complicated and extremely interlinked set of connections that reveal synergistic property. The components of a system work in harmony to ensure that there is effective communication from the management to the junior staff. The departments in the organization also perform their duties in an efficient manner to ensure that they meet their required set targets hence improving the general performance of the whole organization (Flood &Jackson, 1991). A system also functions by acquiring inputs from the external environment (Daft, 2009).

Systems theory promotes the performance of the whole system by ensuring that all the parts of the system achieve their objectives (Ackoff, 1971). The theory posit that ,when there is a perfect fit and high degree of interaction among the elements of a system, the general performance of the organization will be improved (Ackoff & Gharajedaghi, 1996). The application of the theory in an organizational set up ensures that there is active interaction of the system elements therefore, providing an alternative understanding to the process of evaluation (Patton, 1990). The evaluation of a selected part of a system instead of the whole system leads to information that is misleading and there after the entire system efficacy will be reduced (Tona & Carlsson, 2013).

Many organizations have incorporated information communication technology (ICT) into their systems to assist in the fight against corruption and in promoting greater comprehensiveness and transparency of information in the public sector (Simon, 1990).

The preferred ICT sound effects have been categorized as information, transactional, tactical and transformational (Gregor, Fernandez & Martin, 2004). The information ICT aspect ensures that the information available to the stakeholders is accurate, identification of bottlenecks in production process as well as ensuring transparency of business processes. The transactional aspect of ICT ensures operational and cost saving, staff cost saving, enhanced company effectiveness and supply chain management. Tactical aspect of ICT aligns the business strategies to support organizational goals, shape organizational ability to create competitive advantage and improve the relationship with customers. Transformational aspect of ICT is linked with enhanced expertise level, advanced practices, development of capabilities and development of innovative culture.

Systems that are well organized combined with roles that are specialized and segmented create a high degree of mutual interdependence. The interactions and interdependencies of the systems in an organization provides adequate and accurate information to the decision making authority to enable them bridge the gap between the projected and the actual plan (Durkheim, 1984) The interdependency among the system components aids the management in the process of evaluation and offers better control of the whole system (Tona & Carlsson, 2013).

Concepts and techniques of systems theory are important in financial management because they form bases for development of conceptualized information systems found in all types of organizations today (Mayer, 2004). The integrated financial management information system has been promoted as a key component that will be used in the implementation of the reforms in the financial sector. IFMIS comprises of various components that work interdependently in a systematic manner to ensure that there is

adequate information for budget formulation, utilization of public resources optimally and reduction of fraud and cases of corruption.

2.3 Determinants of Financial Management in Public Sector

2.3.1Budgeting

A budget is an annual traditional plan that is used by the administration of various organizations in the allocation of monetary resources, management of functions and ensures that there is proper utilization of allocated funds. Budgets facilitate optimal allotment of financial resources to all the units and departments in an organization to help them run smoothly (Adams, 2001). The budgeting process enables managers to critically analyze the feasible and the desired performance and therefore come up with a convergent plan that is acceptable to all stakeholders (Emmanuel, 1990).

The functional budgeting process is divided in two phases. The first phase involves formulation of objectives, setting of targets and the strategies that will be followed to actualize the plan. The second phase advocates for optimal utilization of the resources that are budgeted and also ensures that every employee is held responsible for any wastage and misappropriation (Allan, 1999).

According to Blocker (1980), a budget inspires managers to be organized and have a sense of direction in their daily routine. They are therefore able to define the responsibilities of each department in their organization and to communicate the plan in a manner that is appreciated by all the employees. The budget also serves as a yardstick in the management of organizational procedures which drastically minimizes issues of fraud and wastage of public resources.

The primary goal of the budget is to set targets that will motivate the employees to work extra harder and attain the goals stated in the organization. The budget also helps the management in finding ways to improve the working condition of the employees so that they can be able to work in a conducive environment and perform highly (Kaplan & Norton, 1992).

2.3.2 Internal Control

Internal control is a procedure that is formulated by the board of directors, management and other personnel in order to provide a realistic plan of action that has to be undertaken by all employees to achieve the institution's objectives. This will ensure that there is transparency in financial reporting, efficient operations and observance of the law and the rules (COSO, 1992). Internal control helps the organization improve their standards in financial reporting and enhance effective communication of the results to the stakeholders for them to make their informed decision (Diamond & Khemani, 2005). The enforcement of proper internal control systems has become a requirement in many organizations, this is because it enables managers to improve on their financial performance (Mawanda, 2008), as well as achievement of their organizational objectives (IFAC, 2012).

The government has incorporated an integrated system in its ministries to enhance proper planning and management of resources so that the expense remains within the amount that was budgeted not surpassing the limits that is permitted by the management (Walsham, 1988).

IFMIS enhances the effectiveness of financial management in providing consistent financial information when it is require by the stakeholders for decision making. An integrated computerized system improves accounting and reporting procedures therefore providing accurate financial information (Hendricks, 2012). Internal control enables the organization to move towards the right direction to attain its goals and accomplish its mission (COSO, 1992).

2.3.3 Financial Reporting

The growing demand for high quality financial reporting has made regulators to look for mechanisms that will help improve upon the quality of financial reporting. Due to globalization the stakeholders are demanding high quality information that is consistent and available as and when it is required for decision making (Jonas & Blanchet, 2000). The primary objective of financial reporting is to make sure that adequate, accurate and reliable information is available for the purpose of decision making (Choi & Pae, 2011).

Financial reporting quality minimizes information asymmetry and ensures that the organization has enough liquid for daily operations (Lambert, 2007). This therefore ensures that management is able to perform their duties in line with the organizational rules and procedures and that they do not deviate to activities that will reduce the value of the stakeholders (Chen, 2011). The cost of capital can be greatly influenced by the quality of financial information the firm produces. The quality of financial reporting can influence the perception of the shareholders with regard to future cash flow (Lambert, 2007). Financial reporting is vital for all firms because adequate information on the position and profitability of the organization is made available for economic decisions like investment, dividend policy and financing (Bolo, 2007).

2.4 Empirical Literature

Barry (2001) sought to find guidelines that were in use in the government ministries with regard to public expenditure. He found out that the IFMIS system was very complex compared to other systems that were being used in the ministries. He also noted many challenges that were faced by the ministries in the process of implementing the IFMIS system. The study concluded that IFMIS improved core and non-core financial operations in the government ministries.

Hendricks (2012) argued out that a well-functioning integrated system can be beneficial to its users. The system can be able to detect payment that is in excess of the amount that was supposed to be paid; it can minimize the problem associated with fraud and reduce corruption. The system can also identify daily operations and the number of people who are supposed to use the system therefore, activities that are not supported by the system will be detected and the issue of ghost workers minimized. The system offers assistance in asset and inventory management, by allowing storage of just enough inventories to minimize inventory related costs.

Isidore (2012) undertook a study that sought to find out if financial decisions can be improved and made better with the use of IFMIS. The study used two cases based on organizations in Tanzania. The researcher adopted a descriptive survey and used 34 respondents out of the 204 employees. The study used primary and secondary data through the use of the questionnaires, existing literature and journal articles. The study used correlation analysis and descriptive statistics to analyze the data. The findings indicated that IFMIS tools were crucial in generating financial information that was

critical for better decisions. The managers therefore are able to use information generated from IFMIS in making capital budget decision.

Chuma (2014) sought to find out the effect that IFMIS has on the management of cash in Eldoret. The researcher's objective was to analyze the impact that IFMIS had on the activities that used cash in the county. The study used a descriptive survey design and focused on 70 staffs at the county. The study also used structured interviews and questionnaires in collection of primary data. Descriptive statistics, correlation and regression were used in the process of data analysis. The researcher therefore found out that IFMIS facilitated the generation of reliable, timely and accurate information

Chebet (2013) wanted to find out the critical factors that would be put in place to enhance the improvement of services and performance of the ministries through the re-engineered integrated financial management information system. Descriptive research design was used in the study and primary data collected using the questionnaire. The researcher used stratified sampling technique and divided the respondents into three categories namely: ICT, finance and the main system worker to come up with 54 respondents. She was able to come up with nine factors that were important in the process of IFMIS execution. The factors include: statement of goals in an unambiguous manner, setting timelines that ensure attainment of the stated objectives, team spirit combined with good support team, proper management of resources, appropriate infrastructure, user involvement, clear guidelines in employee's selection, proper management of cash and budgeting and a skilled team. In addition she stated that cooperation among different departments is important as it facilitates integration in government institutions.

Muigai (2012) sought to investigate if financial management can be greatly improved with the integration of core and non-core functions of all the departments in government institutions. He used 42 ministries and 30 accountants as his respondents. Both primary and secondary instruments were used to collect the required data. The study therefore found out that IFMIS has brought many benefits to the users and the stake holders.

Kimwele (2011) analyzed the features that affected the actual execution of IFMIS. He wanted to find out the factors that impeded effective IFMIS execution. The researcher found out that the management did not support the integration of IFMIS thus affecting daily operations in the organization. The management also had little knowledge about the functions of IFMIS this therefore, limited their capacity to inspire the junior staff on the use of IFMIS. The study recommended that the management and other staff to undergo training so that they can have a better understanding of IFMIS. Effective communication also was supposed to be enhanced between the management and junior staff in order to improve service delivery to the citizens.

Hashim (2001) wanted to find out the features of the integrated information system that was important for the development of a functional management system. The researcher used a comprehensive questionnaire to collect primary data. The study found out that most government institutions have incorporated IFMIS into their systems. The study also recommended that before purchase is committed to, IFMIS control systems should be used to ensure that there is sufficient cash collected and that the allocation matched the appropriate budget.

2.5 Conceptual Framework

The conceptual framework shows the relationship between the Independent variable and Dependent variable.

Figure 2.1: Conceptual Framework

Independent variable   **Dependent variable**

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┌─────────────────────────────┐
│ Impact of IFMIS             │              ┌──────────────────────┐
│  • Transparency             │              │                      │
│  • Reliability              │   ────────▶  │   Financial          │
│  • Accuracy                 │              │   management         │
│  • Budgeting control        │              │                      │
│  • Efficiency               │              └──────────────────────┘
│  • Reference and authenticity│
└─────────────────────────────┘
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2.6 Summary of Literature Review

The literature has discussed two theories that underpin public finance studies. These are Technology acceptance model and Systems theory. Technology acceptance model is used as an evaluation technique to access acceptance of technology; its relevance is seen in the assessment and the likelihood of how people and organizations are likely to adopt a particular new technology. Systems theory on the other hand focuses on interactions between people and technology. Internal subsystems work together to increase quality and value in an organization. The chapter also has discussed the empirical literature, the literature dwells on the benefits of IFMIS as a tool of financial control and reporting and therefore some correlation can be inferred in terms of financial management.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter was guided by the rational structure in the process of conducting the study. It was sub divided into the design of the research, population of the study, data collection methods, analysis of the data and validity and reliability of the data.

3.2 Research Design

The study adopted a descriptive research design. Descriptive research design provides a multifaceted approach thereby enabling the researcher to get answers related to individual perceptions and attitudes of the respondents.

3.3 Population of the Study

The population of this study comprised of IFMIS users at the national treasury. Simple random sampling method was used by the researcher to come up with 45 respondents.

Table 3.1: Distribution of Users of IFMIS by Department

Department	Size
Procurement Officers	7
Finance Officers	10
Accountant	12
IT	13
Audit	3
Total	**45**

3.4 Data Collection

Primary data was collected using the structured questionnaires. This method of data collection was adopted because it enabled the researcher to save on time and also get adequate data for analysis. The questionnaires were directed to procurement, finance, accountants, IT and auditors departments at the national treasury. The researcher dropped the questionnaires and picked them in a weeks' time therefore allowing the respondents to have adequate time in availing their answers. The questionnaires took into account a five point Likert scale and sub divided it to sections in line with the study goal. Section A of the questionnaire contained general information. Section B sought to obtain information on the factors affecting management of financial resources through IFMIS while section C of the questionnaire gathered information concerning the impact of IFMIS implementation.

3.5 Reliability and Validity

Validity and reliability increases transparency enhances accuracy and decreases opportunities for biasness in a research.

3.5.1 Reliability

Reliability refers to the extent to which the information used in a study is dependable and trustworthy (Blumberg, 2005), this means that when the study is done repeatedly it should give same results (Twycross & Shield, 2004). The research passes the test of being reliable if the results that are attained in equal conditions but in different settings is similar. Reliability is further sub divided into stability and internal consistency. Stability is the capability of a measure to attain same results in repeated administrations. It is

further divided into two methods namely: test-retest reliability and parallel reliability. On the other hand internal consistency reliability is seen in a situation whereby tests with same concept produce related outcome. (Allen & Yen, 1979). Internal consistency is also represented in two main formats namely: inter-item consistency and split-half reliability. Split halve method is one the basic method that will be used in this study to check for reliability. The questionnaires were divided into two sections then administered to the departments. The presence of reliability will be noticed through the similarity between the responses of the two sections. Though there are several methods that can be used to measure internal consistency; the one that is mostly preferred is the cronbach alpha (Watson & Chmielewski, 2009).

3.5.1.1 Cronbach Alpha

Cronbach alpha was established in 1951 with the aim of providing a measure of internal consistency of a scale which is expressed between 0 and 1(Cronbach, 1951). A value of 0.7 points out the existence of reliability while a value below indicates lack of reliability (Warmbrod, 2001).The use of questionnaire as a means of collecting data forms an important element in a research (Lacobucci & Duhachek, 2004). The importance of a questionnaire depends on its ability to extort data without major deviations. When there is a slight change on the questions administered to respondents the answers should not be different from the first set of questions but uniform.

3.5.2 Validity

Validity assesses the degree to which an evaluating tool measures what it had anticipated to measure (Thatcher, 2010). The validity of a research is upheld when the method followed is scientific (Oliver, 2010). Validity is further divided into internal and external validity. Internal validity specifies the legitimacy of the study (Willis, 2007), while external validity shows whether the results are exchangeable with other groups (Last, 2001).

3.6 Data Analysis

Quantitative and qualitative analysis was used on the data collected from the questionnaire. The data was coded and then analyzed statistically using the SPSS software. The coded information was tabulated then statistically analyzed through the calculation of their mean, percentages and variance of the variables. The data was presented in tables and charts then subjected to multilinear regression to test the relationship between the independent variables, budgeting, financial reporting and internal control.

The multilinear regression equation assumed the following form:

$$Y = \beta 0 + \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + \beta 4 X4 + \in$$

Where: Y= Financial management in the public sector

β0= Constant

X1=Budgeting

X2= Financial reporting

X3= Internal control

B 1, 2, 3=Slopes associated with X1, X2 and X3 respectively

€= Error term

3.6.1 Test of Significance

The coefficient of determination will be used to determine the extent to which the variance in financial management can be described by several features of IFMIS.F-Statistic was computed at 95% confidence level to assess whether there is any relationship between the variables.

3.7 Diagnostic Tests

Financial data is often characterized by errors which may lead to biasness in the interpretation of results. In order to evaluate the accuracy of data, diagnostic test was conducted. This will enhance the reliability and validity of the data. According to Lawrence (2015), validity is the appropriateness of the process, tool and the data that researcher applies in the study. Reliability measures the consistency of the process and the results that are used in a research study. In order for validity to exist, reliability is required and therefore it is impossible to undertake valid test from unreliable data. Reliability is affected by stability, reproducibility and accuracy. Reliability will be enhanced through accurate analysis.

3.7.1 Normality Test

Statistical processes like correlation, t-tests, regression as well as variance analysis are carried out on assumption that data is normally distributed. Normality is crucial because

if data is not normally distributed it becomes impossible to make accurate and reliable conclusions regarding the study. Normality can be tested using normality test. Normality test includes among others chi-square normality, Shapiro test and Pearson test Jarque-Beta test. Shapiro test using SPSS software is the most recommended (Ghesemi and Zahedias, 2012).

3.7.2 Autocorrelation Test

Autocorrelation is used to measure the relationship between current and past value of a variable. Correlation ranges from 1.0 to -1. Positive 1 represents a perfect positive correlation, while -1 represents a negative correlation between the variables. If there exists a positive correlation it signifies that the standard error are biased and too small, with a negative correlation it shows that the standard error are biased and too large. Autocorrelation can be tested graphically or using formal test. Durbin Watson is the commonly used test.

3.7.3 Multicollinearity Test

Multicollinearity test occurs if two or more predictors in a model are greatly related. The presence of Multicollinearity in data leads to high standard error on estimates. It also leads to confusing and misleading results regarding the data. To solve the problem one of the correlated predictors can be removed from the model. Multicollinearity produces large standard errors on related variables under study.

3.7.4 Heteroscedascity Test

Linear regression model assumes an error term if data is homogenous. If the error term is not homogenous presence of Heteroscedascity exists. It occurs if some variance are omitted from the model. If Heteroscedascity exists in data under study it means that the variance cannot be relied upon. It will therefore lead to inaccurate results. Heteroscedascity test can be detected graphically or through statistical tests.

3.7.5 Linearity

Standard multiple regression can only estimate linear relationship between the variables. In case of nonlinear relationship between the variables, there will be an underestimation of the results leading to type1 and type 11 error.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The research looked into the impact of integrated financial system on financial management in Kenya's public sector: a case of the National Treasury. This chapter therefore presents the research findings based on the proposed methodology and procedures.

4.2 Response Rate

For the study, out of the 45 questionnaires administered to different categories of employees at the national treasury 35 questionnaires were fully completed and returned. The overall response rate for the study was as indicated in the table below;

Table 4.1: Response Rate

Response	Frequency	Percentage (%)
Returned	35	77.8%
Unreturned	10	22.2%
Total	**45**	**100%**

The outcome in table 4.1 indicate 77.8% successful response. Therefore, the response rate documented was found fit for analysis since it is supported by the study done by Mugenda (2010) who stated that a response rate of 70% is considered as an outstanding percentage for analysis and conclusion.

4.3 Demographic Characteristics

The section describes the basic characteristics of the respondents such as age, gender, highest level of education, duration worked in the institution and the department of work among others. To explore these factors, an analysis of frequencies was undertaken after which the output was presented as shown below;

Table 4.2: Gender of the Respondents

	Frequency	**Percent**
Male	20	57.1
Female	15	42.9
Total	**35**	**100.0**

Majority of the respondents were male with 57.1% while 42.9% were female. These results clearly show that more male employees responded to the study compared to the female employees.

Table 4.3: Age of the Respondents

	Frequency	Percent
18-25 years	7	20.0
26-36 years	19	54.3
36-45 years	3	8.6
46-55 years	5	14.3
Over 56 years	1	2.9
Total	**35**	**100.0**

Table 4.3 above show that the majority, 54.3% were aged between 26-36 years, 20% constituted those aged between 18-25 years, 14.3 % those aged 46-55 years, 8.6 % aged between 36-45 years while 2.9% were aged over 56 years. This implies that most respondents were middle aged.

4.4 Level of Education

The respondents were also required to specify their level of education level. This was important as it helps in determining the job performance. The results were as shown in table 4.4 below

Table 4.4: Level of Education

	Frequency	**Percent**
PhD level	1	2.9
Masters level	13	37.1
First degree	9	25.7
Diploma	12	34.3
Total	**35**	**100.0**

Study findings indicated that the majority, 37.1% had attained master's degrees, followed by 34.3 % with diplomas, then 25.7% first degrees while only 2.9% had earned PHD degrees. It can thus be concluded from the findings that most of the respondents are educated and understand how integrated financial system affect financial management in the public sector in Kenya

Table 4.5: Duration Worked in the Department

	Frequency	Percent
1-2 years	15	42.9
2-4 years	8	22.9
4-6 years	9	25.7
Above10 years	3	8.6
Total	**35**	**100.0**

The research resolved to ascertain the duration to which the various respondents had worked in their departments at the National treasury. The responses show that the majority, 42.9 % had worked for the department for a period ranging between 1-2 years followed by 25.7% who have been in their departments for a time frame of between 4-6 years closely followed by 22.9% who had served the organization between 4-6 years while, those who had served in their departments for Above 10 years were the least with 8.6%. This shows that most employees had worked in their departments for a reasonable number of years and therefore a good sign of sustainability.

Table 4.6: Department of Work

	Frequency	Percent
Accounts	11	31.4
Procurement	5	14.3
IT	11	31.4
Finance	7	20.0
Audit	1	2.9
Total	35	100.0

The findings show that an equal percentage of 31.4% was recorded from both the accounting and IT departments followed by 20% from the finance department, 14.3% from the procurement department while the least, 2.9% were from the audit department.

Table 4.7: Frequency of Use of IFMIS in the Organization

	Frequency	**Percent**
Daily	24	68.6
Weekly	3	8.6
Monthly	2	5.7
Quarterly	3	8.6
Annually	3	8.6
Total	**35**	**100.0**

IFMIS was utilized by the employees as part of their work in the organization. The findings established that the majority, 68.8% used IFMIS on a daily basis followed by 13.6% on a weekly basis, 8.6% monthly, 5.7% quarterly whereas 3.6% used it annually.

4.5 Budgeting Systems

In order to determine the degree to which budgeting systems in IFMIS affect financial management at the national treasury, the respondents were asked to specify the degree to which the different aspects of budgeting affect financial management. The rating as per attribute was expressed using a five point Likert Scale: 1-No Extent, 2.Little extent, 3.Moderate Extent, 4.Great Extent, 5.Very Great Extent.

Table 4.8: Budgeting Systems

	N	Mean	Std. Deviation
Budget preparation and approval	35	4.2000	1.02326
Cash management	35	3.5714	1.37810
Macrofiscal forecasting	35	3.4000	1.26491
Average	**35**	**3.7238**	**1.22209**

From the findings, budget preparation was ranked the highest as shown by (M=4.20, SD=1.02) followed by cash management (M=3.57, SD=1.378) while Macro fiscal forecasting came last with (M=3.40, SD= 1.264). The average mean was 3.72 while the overall SD was 1.222 implying that the responses were collected around the mean response. The findings show that budgeting systems touch on every organ of the organization and therefore it is a very crucial phase when it comes to matters on financial management. These findings agree with Blocker (1980) who opined that a budget inspires managers to be organized and have a sense of direction in their daily routine.

4.5.1 Extent to which the Different Aspects of Budgeting Systems in IFMIS Affect Financial Management

The study needed to determine the extent to which the different aspects of budgeting affect financial management. The responses were expressed in a five point Likert- Scale of (1- Strongly Disagree, 2- Disagree, 3- Moderate, 4- Agree, 5- Strongly agree). The findings were presented as shown in the table below:

Table 4.9: Aspects of Budgeting Systems in IFMIS

	N	Mean	Std. Deviation
IFMIS seek to improve execution by providing timely and accurate data for budget management and decision making.	35	3.7429	1.14642
IFMIS seek to enhance confidence and trustworthiness of the budget through greater comprehensiveness of information.	35	3.6571	1.21129
IFMIS seek to improve the process of decision making by availing accurate data for budget management	35	3.5714	1.33473
Average	**35**	**3.6571**	**1.23081**

The study established that majority of the respondents (M-3.74, SD -1.146) agree that IFMIS improves budget management process by providing appropriate and correct data for decision making followed by those who stated that IFMIS enhances confidence and trustworthiness of the budget as evidenced by (M- 3.657, SD- 1.211) while the least (M-

3.57, SD- 1.33) stated that IFMIS avails appropriate and precise data for budget management and making of decision. The study recorded an average mean of 3.6571 implying that budgeting systems affect financial management in their offices. These findings agree with Adams (2001) who pointed out that, budgets facilitate optimal allotment of financial resources to all the units and departments in an organization to help them run smoothly and thus higher financial management capacity.

4.6 Internal Control Systems

The respondents were required to specify the extent to which the different aspects of internal control have influenced financial management. The rating was expressed using a five point Likert Scale: 1-No Extent, 2.Little extent, 3.Moderate Extent, 4.Great Extent, 5.Very Great Extent.

Table 4.10: Internal Control Systems

	N	Mean	Std. Deviation
Reduced fraud	35	3.4857	1.01087
Monitoring and evaluation	35	3.4571	1.22097
Enhanced governance	35	3.2286	1.13981
Average	**35**	**3.3905**	**1.12388**

From the results, internal controls scored a grand mean of 3.390 which proved its effectiveness in enhancing financial management. Its application had resulted to reduced fraud by (M-3.48, SD-1.01087), monitoring and evaluation (M-3.4571, SD-1.22097),

enhanced governance (M-3.3905, SD-1.12388). The average mean of 3.39 implies that the respondents agree that all the stated aspects enhance financial management. These findings conform to COSO (1992) that internal controls ensure that there is transparency in financial reporting, efficient operations and observance of the law and the rules.

4.6.1 Extent to which the different Aspects of Internal Controls in IFMIS Affect Financial Management

The study further sought to investigate the extent to which the different aspects of internal controls affect financial management. The responses were expressed in a five point Likert- Scale of (1- Strongly Disagree, 2- Disagree, 3- Moderate, 4- Agree, 5- Strongly agree). The findings were presented using means and standard deviation as shown in table below:

Table 4.11: Aspects of Internal Controls in IFMIS

	N	Mean	Std. Deviation
Since the implementation of IFIMS, duplication and jurisdiction problems in exchanging information have been minimized.	35	3.6286	.91026
Use of IFMIS has greatly enhanced securing of information which minimizes risk of corruption and improved reliability of the system.	35	3.5714	1.14496
IFMIS can trace all the stages of a transaction process hence enhancing transparency and accountability of the process.	35	3.5143	1.59727
IFMIS provide auditable financial statements from the organization.	35	3.4857	1.06747
IFMIS allow for cross-referencing of personal identification numbers and asset inventories that has reduced cases of fraud significantly.	35	3.4000	1.16821
IFIMS has improved the efficacy and proficiency of public expenditure programmes	35	3.3714	1.43662
Since the implementation of IFMIS, there is enhanced confidence and credibility of the budget.	35	3.3429	1.28207
Built-in features within IFMIS facilitate effective monitoring and evaluation of public sector's activities	35	2.7714	1.26225
Average	**35**	**3.3857**	**1.23364**

The findings on the different statements asked were as follows; Since the implementation of IFIMS, duplication and jurisdiction problems in exchanging information have been minimized (M-3.6286, SD-91026) ,use of IFMIS has greatly enhanced securing of information which minimizes risk of corruption and improved reliability of the system

(M-3.5714, SD- 1.14496), IFMIS can trace all the stages of a transaction process hence enhancing transparency and accountability of the process (M-3.5143, SD- 1.14496) , IFMIS provide auditable financial statements from the organization (M-3.4857, SD-1.06747), IFMIS allow for cross-referencing of personal identification numbers and asset inventories that has reduced cases of fraud significantly (M-3.4000 , SD-1.16821), IFIMS has improved the effectiveness and efficiency of public expenditure programs by (M-3.3714, SD-1.43662), since the implementation of IFMIS, there is enhanced confidence and credibility of the organization's budget (M- 3.3429, SD- 1.28207), built-in features within IFMIS facilitate effective monitoring and evaluation of public sector's activities (M-2.7714, SD-1.23364). The overall mean recorded was 3.38 implying that on average, the respondents agree that IFMIS has played a big role in enhancing internal controls which have indeed improved financial management. The overall SD of 1.23 indicated that majority of the responses were grouped around the mean response. These findings agree with Hendricks (2012) who stated that integrated computerized system improves accounting and reporting procedures therefore providing accurate financial information.

4.7 Financial Reporting Systems

The study sought to examine the degree to which the different aspects of financial reporting systems affect financial management. The respondents were presented with different aspects of financial reporting systems. The rating as per the contribution to the aspect was expressed using a five point Likert Scale: 1-No Extent, 2.Little extent, 3.Moderate Extent, 4. Great Extent, 5.Very Great Extent.

Table 4.12: Financial Reporting Systems

	N	Mean	Std. Deviation
Budget preparation and approval	35	3.9429	1.23533
Authenticity	35	3.9143	.95090
Accuracy	35	3.8857	.93215
Relevance	35	3.8571	.91210
Promptness	35	3.8000	.96406
Security	35	3.7059	.97014
Macro fiscal forecasting	35	3.6000	1.14275
Average		**3.8151**	**1.01535**

From the results, the different aspects of financial reporting registered an overall mean of 3.81. The specific aspects were; budget preparation and approval, authenticity, accuracy, relevance, promptness, security and macro fiscal forecasting with mean scores of 3.9429, 3.9143, 3.8857, 3.8571, 3.8000, 3.7059 and 3.6000 respectively. An overall mean of 1.01 implies that the responses were clustered around the mean response. The results agree with Choi and Pae (2011) who states that financial reporting mainly seeks to avail adequate, accurate and reliable information for the purpose of decision making.

4.7.1 Extent to Which the Different Aspects of Financial Reporting Systems in IFMIS Affect Financial Management

The study further sought to investigate the extent to which the different aspects of financial reporting systems in IFMIS affect financial management. The responses were expressed in a five point Likert- Scale of (1- Strongly Disagree, 2- Disagree, 3- Moderate, 4- Agree, 5- Strongly agree). The findings were presented using means and standard deviation as shown in the table below:

Table 4.13: Aspects of Financial Reporting Systems in IFMIS

	N	Mean	Std. Deviation
I can easily access non-financial information such as employee number and cadre	35	3.6571	1.02736
IFMIS systems enable me to generate custom reports for internal and external use.	35	3.6286	1.33032
IFMIS offers real-time financial information that enhances my decision making abilities.	35	3.5143	1.29186
With IFMIS, I have at my disposal information that can quickly provide year to year balances which can be used for analysis throughout the year.	35	3.4857	1.26889
IFMIS accurately disclose the financial position to the public.	35	3.4571	1.19663
IFMIS enables me to understand the true cost of service delivered per activity.	35	3.4000	1.14275
I can easily extract and present data from IFMIS in ways that facilitate analysis	35	3.3143	1.38843
Through IFMIS I am able to reconcile transactions data in real time.	35	3.2286	1.16533
Average	**35**	**3.4607**	**1.22645**

The study found that the respondents agree that they can easily access non-financial information such as employee number and cadre as shown by a mean of 3.62. The respondents also agree that IFMIS systems enable them to generate custom reports for internal and external with a mean of 3.6286. IFMIS offered real-time financial information that enhanced decision making abilities as shown by a mean of 3.5143.

Furthermore, IFMIS avails information that can quickly provide year to year balances which is used for analysis throughout the year, IFMIS accurately disclose the financial position to the public, IFMIS enables its stakeholders to understand the true cost of service delivered per activity, data is extracted with ease for analysis and lastly through IFMIS real time data can be reconciled without difficulties attained average means of (3.4857, 3.4571, 3.4000, 3.3143, 3.2286 and 3.2286) respectively. It can thus be construed from the findings that financial reporting minimizes information asymmetry and ensures that the organization has enough liquid for daily operations which ensures that management is able to perform their duties in line with the organizational rules and procedures and that they do not deviate to activities that will reduce the value of the stakeholders (Chen, 2011).

4.8 Financial management of Public Sector

In order to examine the trend in different aspects of financial management at the national treasury, the respondents needed to specify the extent to which they agree with different statements on various aspects. The aspects includes: monitoring of financial resources, planning of financial resources, audit scrutiny, control of financial resources and directing of financial resources. The responses were rated on a five point Likert scale as follows; **1= To a very less extent, 2= To a less extent, 3= To a moderate, 4= To a great extent, 5= Very great extent** and their cumulative mean and standard deviation presented as shown in table 4.14 below;

Table 4.14: Financial management of Public Sector

	N	Mean	Std. Deviation
Controlling of financial resources	35	4.3429	.88281
Monitoring of financial resources.	35	3.9714	.70651
Audit scrutiny	35	3.8000	.99410
Planning of financial resources	35	3.6571	.96841
Directing of financial resources	35	3.6000	1.03469
Average	**35**	**3.8743**	**0.9173**

Categorically, Controlling of financial resources was ranked the highest with (M=4.3429 and SD=0.88281), followed by Monitoring of financial resources (M=3.9714 and SD=0.70651), then Audit scrutiny (M=3.8, SD= 0.9941) while Planning of financial resources registered (M=3.6571, SD= 0.96841) and finally directing of financial resources recorded (M- 3.6, SD-1.035). The aggregate mean was 3.8743 while the overall standard deviation was 0.9173. From the findings, it can be construed that financial management at the national treasury has improved as a result of application of IFMIS. Therefore, it can be said that financial management allows for combination of different roles within a common database which provides administrators with tools for planning and management of public resources. These findings agree with Adwin and Opkara (2014) who argued that integrated financial management information system is an essential tool in the management of organizational resources.

4.9 Diagnostic Tests

Diagnostic tests carried out in this study included; normality tests, autocorrelation tests, multicollinearity tests, homoscedacity tests, and linearity tests. Normality test was carried out using Shapiro wilk test which was supplemented by the Kolmogorov-Smirnov test. The homoscedacity test was conducted using Cameron & Trivedi's IM-test. The linearity test was done by ascertaining whether the conditions of normality and homoscedacity have been met. Tests on Multicolinearity of data were carried out using variance inflation factors (VIF) and Tolerance. Autocorrelation was conducted through the Durbin-Watson Statistic.

4.9.1 Test for Normality

Table 4.15: Test for Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Financial management	.178	35	.300	.881	35	.723
Budgeting	.176	35	.300	.892	35	.784
Financial reporting	.181	35	.300	.896	35	.792
Internal control	.173	35	.300	.918	35	.822

The significance value in both tests is greater than α (0.05) therefore; the null hypothesis is accepted. This therefore indicates that the data series is normally distributed since, the significance value in both tests is more than α (0.05). This gives verification that budgeting, financial reporting and internal control can be used as determinants of financial management for this study.

4.9.2 Auto-Correlation

Table 4.16: Auto-Correlation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.536[a]	.287	.216	.61422	1.928

a. Predictors: (Constant), Budgeting , Financial reporting, Internal Control

The Durbin-Watson statistic obtained for the variables is 1.928. A positive autocorrelation is depicted by values of 0 to less than 2.Negative correlation if depicted by value range of 2 to 4 .The normal range is between the values of 1.5 to 2.5. Therefore, the data used in this panel is not serially autocorrelated since it has a value of 2.The data meets the threshold and therefore is fit for regression analysis.

4.9.3 Multi-Collinearity

Results on Test for multicolinearity of data was carried out using Tolerance and Variance Inflation factors (VIF) and are displayed in Table 4.17 below.

Table 4.17: Multi-Collinearity

	Collinearity Statistics	
Variable	**Tolerance**	**VIF**
Budgeting	0.388	1.422
Financial reporting	0.398	1.982
Internal control	0.376	1.398

If the tolerance statistic is greater than 0.2, then there is no multi-collinearity. If the VIF statistic is in the range of 1 to 10, there is no multicollinarity, if the values are less than 1 or greater than 10 then there is multicollinearity. The Tolerance statistic obtained in the study is greater than 0.2 while the VIF is between the range of 1 to 10.This shows that there is no multicollinearity between the independent variables employed in the study.

4.9.4 Heteroscedasticity Test

Cameron & Trivedi's IM-test was used to test for heteroscedasticity. The null hypothesis stated that there is no heteroscedasticity. Findings in Table 4.18 show that the p-value (p=0.3873) is greater than the critical value of 0.05. Therefore, we fail to reject the null hypothesis and conclude that the variance is homogenous.

Table 4.18: Cameron &Trivedi's decomposition of IM-test

Source	chi2	Df	P
Heteroskedasticity	41.42	17	0.3873

Source: Research Findings (2018)

4.10 Regression Analysis

In the quest to link the two variables, a simple regression analysis was applied. The independent variables were budgeting, financial reporting and internal Control while the dependent variable was financial management. The model summary was as shown in table below:

Table 4.19: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.536[a]	.287	.216	.61422

a. Predictors: (Constant), Budgeting , Financial reporting, Internal Control

The R-square value in the model was 0.287 meaning 28.7 % of variation in financial management can be explained by the three independent variables selected for the study while the other 71.3% was due to other factors that were not covered in the study.

Table 4.20: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.564	3	1.521	4.033	.016[b]
	Residual	11.318	31	.377		
	Total	15.882	34			

a. Dependent Variable: Financial management.
b. Predictors: (Constant), Budgeting , Financial reporting , Internal Control

The significance test for the model is represented in the ANOVA table under F and Sig Columns. The P value of 0.016 compared to the conventional level of 0.05 is lesser meaning that the independent variables (Budgeting, Financial reporting and internal controls) reliably predict the dependent variable (Financial Management) and thus the model was significant

Table 4.21: Coefficients

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.737	.782		4.779	.000
Budgeting	.242	.114	.336	2.118	.043
Financial reporting	.470	.118	.443	2.594	.017
Internal Control	.265	.112	.370	2.365	.025

 a. Dependent Variable: Financial management

From the table of coefficients above, the following regression model was established:-

$$Y = 3.737 + 0.242X_1 + 0.470X_2 + 0.265X_3 + 0.782$$

Thus, when all factors are kept constant, financial management at the national treasury would be held at 3.737. A unit increase in budgeting would lead to 0.242 positive change in financial management. A unit increase in financial reporting holding all other factors constant would result to 0.470 positive changes in financial management. Moreover, a unit change in internal controls results to 0.265 change in financial management. The value of all the variables are less than $(p < 0.05)$. This means that the variables are significant.

4.11 Discussion of the findings

Majority of the developing countries suffer from ineffective revenue administration systems, improper allocation of resources and poor delivery of essential public services due to inadequate and dysfunctional control systems (Cragbe, 2012). Furthermore, Public financial management practices have been characterized by challenges in revenue

mobilization, lack of clarity and responsibility in the use of public funds. These problems have attributed to persistent increase in budget deficits, public debts and poor performance of the economy (Shah, 2006).This persistent problem led to the introduction of an integrated financial system that integrates improves and strengthens financial operation in an organization.

The study sought to analyze the effectiveness of IFMIS on budgeting and to investigate this, aspects such as budget preparation, cash management and Macro fiscal forecasting were examined. The average mean registered on all the three components was 3.72 implying that budgeting systems touches on every organ of the organization and improves the overall financial management practices. These findings agree with Blocker (1980) who opined that a budget inspires managers to be organized and have a sense of direction in their daily routine. The study was also keen in establishing the extent to which different budget attributes affect financial management. The respondents were asked to rate the extent to which they agree with different aspects such as improve execution that provides timely and accurate data for budget management and decision making. IFMIS therefore seeks to enhance confidence and credibility of the budget through greater comprehensiveness of information. IFMIS also seeks to improve budget planning by providing timely and accurate data for budget management and decision making. The overall mean of all the statements was 3.6571 implying that budgeting systems affect financial management in their offices. These findings agree with Adams (2001) that budgets facilitate optimal allotment of financial resources to all the units and departments in an organization to help them run smoothly and thus offer higher financial management capacity.

The study further undertook a scrutiny on the role of internal control in enhancing financial management. The first step of this assessment begun with asking the respondents to give their opinion on how internal control systems in their organization has helped in the reduction of fraud, monitoring and enhanced governance. The grand mean of 3.390 proved that effectiveness of internal control systems in enhancing financial management cannot be underestimated. These findings conform to COSO (1992) who posited out that, effective internal control systems ensure that there is transparency in financial reporting, efficient operations and observance of the law and the rules.

IFMIS has greatly enhanced securing of information which minimizes risk of corruption and improved reliability of the system, IFMIS can trace all the stages of a transaction process hence enhancing transparency and accountability of the process. IFMIS provide auditable financial statements from organizations to the auditor general and allows for cross-referencing of personal identification numbers and asset inventories that has reduced cases of fraud significantly. IFIMS has improved the effectiveness and efficiency of public expenditure programmes; this therefore enhances confidence and credibility of many organizations. Budget and built-in features within IFMIS facilitate effective monitoring and evaluation of public sector's activities. The overall mean recorded was 3.38 implying that on average, the respondents agree that IFMIS has played a big role in enhancing internal control which has indeed improved financial management. The overall standard deviation of 1.23 implies that majority of the responses were clustered around the mean response. These findings agree with Hendrick (2012) who stated that integrated

computerized system improves accounting and reporting procedures therefore providing accurate financial information.

In order to verify the effects of financial reporting systems in IFMIS on financial management in the public sector in Kenya, the respondents were asked to state whether financial reporting systems had enhanced budget preparation and approval, authenticity, accuracy, relevance, promptness, security and macro fiscal forecasting. An overall mean of 1.01 was attained implying that the responses were clustered around the mean response. The results agree with Choi and Pae (2011) who stated that financial reporting mainly seeks to avail adequate, accurate and reliable information for the purpose of decision making. The average mean on the different statements of financial reporting recorded an average mean of 3.8151 further confirming that financial reporting minimizes information asymmetry and ensures that the organization has enough liquid for daily operations. Adequate and proper financial reporting ensures that the management is able to perform their duties in line with the organizational rules and procedures and that they do not deviate to activities that will reduce the value of the stakeholders.

From the regression analysis model on the effect of the impact of integrated financial system on financial management of the public sector in Kenya, the R square value was 0.287. This implies that 28.7% of the variation in financial management could be explained by different aspects of financial management. Furthermore, at 95% confidence

level, the model was found to be significant as demonstrated by a p value of (p=0.016) which was less than the conventional 0.05. These findings concur with Adwin and Opkara (2014) who argued that the integrated financial management information system is an essential tool in the management of financial resources in an organization.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECCOMENDATIONS

5.1 Introduction

The chapter summarizes the findings, conclusions, recommendations, study limitations and suggestions for further research.

5.2 Summary of the findings

The objective of the study was to determine the impact integrated financial system on financial management of the public sector in Kenya.

The demographic information findings reveal that majority of the respondents were male, this did not influence the study's findings due to the nature of the work executed in the National treasury. Thus gender imbalance had no influence on the findings. The findings also depict that that majority of employees had been employed at the National treasury for a considerable period of time thus had gained adequate experience and had vast knowledge on the organization's financial management systems. The findings showed that most respondents were educated and thus knowledgeable about all the concepts captured in the study. The research discovered that all the departments which were finance, procurement, IT, audit and accounts were involved in the study. The findings salso reveal that most respondents were middle aged (36-45 years).

The means and standard deviations of the different aspects of budgeting were presented as follows; Budget preparation (M=4.20, SD=1.02) cash management (M=3.57, SD=1.378) while Macro fiscal forecasting (M=3.40, SD= 1.264). The average mean was

3.72 while the overall standard deviation was 1.222. The study established that majority of the respondents (M-3.74, SD -1.146) agree that IFMIS gives an assurance of a budget that is trustworthy, while the least (M- 3.57, SD- 1.33) stated that IFMIS seeks to improve and enhance the process of decision making by providing accurate data. The study recorded an average mean of 3.6571 implying that budgeting systems affect financial management in their offices.

Internal controls registered an overall mean of 3.390 which proved its effectiveness in enhancing financial management. The computations of the results were as follows: reduced fraud (M-3.48, SD-1.01087), monitoring and evaluation (M-3.4571, SD-1.22097) and enhanced governance (M-3.3905, SD-1.12388). The average mean of 3.39 implies that the respondents agree that all the stated aspects enhance financial management. The overall mean recorded on the different attributes of mean was 3.38 implying that on average, the respondents agree that IFMIS has played a big role in enhancing internal controls which has indeed improved financial management.

The findings on the role of financial reporting in enhancing financial management on the different attributes such as budget preparation and approval, authenticity, accuracy, relevance, promptness, security and macro fiscal forecasting recorded mean scores of 3.9429, 3.9143, 3.8857, 3.8571, 3.8000, 3.7059 and 3.6000 respectively. An overall mean of 1.01 implies that the answers given by the respondents grouped around the mean. This outcome is supported by Choi and Pae (2011) who stated that financial reporting mainly seeks to avail adequate, accurate and reliable data that is mainly used by various stakeholders in making decision. The study found that the respondents agree that they can easily access non-financial information such as employee number and cadre as shown by

a mean of 3.62. The respondents also agree that IFMIS systems enable them to generate custom reports for internal and external procedures with a mean of 3.6286. The respondents also agreed that IFMIS offers real-time financial information that enhances decision making abilities as shown by 3.5143. Furthermore, IFMIS provides disposal information that can quickly provide year to year balances which can be used for analysis throughout the year. IFMIS also accurately discloses the financial position to the public and enables the respondents to understand the true cost of service delivered per activity. The respondents can easily extract data from IFMIS in ways that facilitate analysis and reconciliation of transactions. These aspects attained an average means of 3.4857, 3.4571, 3.4000, 3.3143, 3.2286 and 3.2286 respectively.

From the regression analysis model, the R square value was 0.287. This indicates that 28.7% of the variation in financial management can be described by different aspects of financial management. Furthermore, at 95% confidence level, the model was found to be significant as demonstrated by a p value of (p=0.016) which was less than the conventional 0.05. This therefore implies that the integrated financial systems aspects are significant in explaining financial management in the public sector.

5.3 Conclusions

The researcher's conclusion is as follows: It is imperative for Kenya's public sector to invest in integrated financial management information systems (IFMIS) to so as to realize improved financial management. This means that failure by the Kenyan to promote and facilitate the use of IFMIS affects financial management negatively. This is evidenced by the findings from the regression model analysis where a (P=0.016) was found at 95%

confidence level meaning that an integrated financial system applications significantly influence financial management.

The study also concludes that IFMIS affects all functions of budgeting such as budget preparation, cash management and Macro fiscal forecasting which are highly attributed to financial management among government agencies in Kenya. The study also notes that internal control play an integral role in making sure that correct procedures are followed in financial transactions therefore reducing fraud and enhancing governance. The study also concludes that 28.7% of changes in the dependent variable (financial management in Kenya's public sector) is contributed by the independent variables of the study (Budgeting, Internal Controls and financial reporting) while 71.3% is explained by other factors.

5.4 Recommendations

The study recommends an effective design of an IFMIS system so that it can be able to accommodate more functions and operations that are linked to financial services and other non-financial services. This will improve governance and enhance financial control in the public sector as functions like human resource, maintenance and information technology benefits from advantages that accrue due to the use IFMIS in their daily operations. The incorporation of non-financial services into the IFMIS system ensures that all general staff of the organization are incorporated into the system therefore improving the capacity of IFMIS implementation. A well designed IFMIS system enables the organization to minimize issues of graft, reduce resource wastage and increase efficiencies in public organizations.

The management of different public sectors in the government of Kenya should relook into the loop holes and channels through which the networks are broken into leading to misappropriation of funds, thus hampering the provision of quality and cost effective services to the public.

The citizens should also play an oversight role in ensuring that resources allocated to different ministries are used optimally for them to get better services. They should also hold their leaders accountable if the resources allocated in their ministries are not used optimally.

The government should adequately increase the budget for IFMIS implementation and other funding platforms so that the capacity and structures of IFMIS are improved. Inadequate funding hampers the implementation process therefore, forcing many organizations to continue using manual procedures. The public institutions should also improve on record keeping to make sure that the audit team and other stakeholders trace accounts to the original source document. This will make it easy for the management to track and monitor the use of public funds.

5.6 Limitations

The objectives of the research were achieved but with various limitations. Due to the different scope of operations among the different departments at the national treasury, the budgeting requirements, internal controls required and financial reporting systems were different thus no standard metric of testing the variables but mere judgments and opinions of the respondents. Because of the confidentiality policy of some departments, the respondents from other departments did not answer the questionnaires or failed to give all

the required information without approval from the legal department. Some of the respondents were not satisfied with the introductory letter from the university but instead wanted another letter that is addressed to the same effect from the cabinet secretary's office. This explained why a response rate of 77.8% was attained. The drop and pick method of administering the questionnaires employed for the collection of primary data was also costly and time consuming.

5.7 Suggestions for further research

On the basis of information gathered and the knowledge gained in this study, the researcher has suggested some areas for further research. First, there are many variables affecting financial management apart from the selected ones. Further research can be done to identify and incorporate these factors. The scope of the study was limited to the national treasury. Research should be conducted to cover other ministries, corporations, private organizations and other global countries to ascertain whether the current study findings would hold. Multiple regression was used in this research; further research can incorporate other analysis methods like factor analysis, and discriminant analysis due to the inadequacies of the regression models to explain the different associations between the variables.

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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

Section A: General Information

1. Gender

    i) Male ☐

    ii) Female ☐

2. Age bracket

    i) 18-25 years ☐

    ii) 26-36 years ☐

    iii) 36-45 years ☐

    iv) 46-55 years ☐

    v) Over 56 years ☐

3. Academic qualifications

    i) PhD level ☐

    ii) Masters level ☐

    iii) First degree ☐

    iv) Diploma ☐

4. How long have you been working in your department

    i) 1-2 years ☐

    ii) 2-4 years ☐

    iii) 4-6 years ☐

    iv) 6-10 years ☐

    v) 10-15 years ☐

    vi) Above 15 years ☐

5. What is your department?

i) Accounts ☐

ii) Procurement ☐

iii) IT ☐

iv) Finance ☐

v) Audit ☐

Other (please specify) …………………………………………………………………

6. How frequent do you use IFMIS as part of your work?

i) Daily ☐

ii) Weekly ☐

iii) Monthly ☐

iv) Quarterly ☐

v) Annually ☐

Section B: Budgeting Systems

7. To what extent do budgeting systems in IFMIS affect financial management in your

offices?

i) Very great extent ☐

ii) Great extent ☐

iii) Moderate extent ☐

iv) Little extent ☐

v) No extent ☐

8. To what extent do the following aspects of budgeting systems in IFMIS affects financial management in your offices?

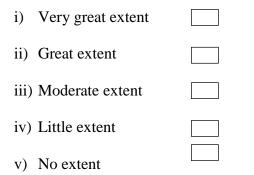|	Very great extent	Great extent	Moderate extent	Little extent	No extent
Budget preparation and approval					
Macro fiscal forecasting					
Cash management					

9. What is your level of agreement with how the following statements on budgeting systems affect financial management in your offices: 5 – Strongly agree, 4 – Agree, 3 – Neutral, 2 – Disagree, 1 – Strongly disagree.

	1	2	3	4	5
IFMIS seek to improve budget planning by providing timely and accurate data for budget management and decision making.					
IFMIS seek to enhance confidence and credibility of the budget through greater comprehensiveness of information.					
IFMIS seek to improve execution by providing timely and accurate data for budget management and decision making.					

Section C: Internal Control Systems

10. To what extent do internal control systems in IFMIS affect financial management in

   your office?

i)   Very great extent   ☐

ii) Great extent   ☐

iii) Moderate extent   ☐

iv) Little extent   ☐

v)   No extent   ☐

11. To what extent do the following aspects of internal control systems in IFMIS affect

   financial management in your offices?

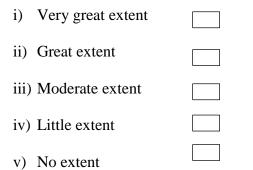|	Very great extent	Great extent	Moderate extent	Little extent	No extent
Monitoring and evaluation					
Enhanced governance					
Reduced fraud					

12. Please indicate whether you agree or disagree with the following statements by placing a tick (√) inside the appropriate box: 5 – Strongly agree, 4 – Agree, 3 – Neutral, 2 – Disagree, 1- Strongly disagree.

	1	2	3	4	5
Since the implementation of IFIMS, duplication and jurisdiction problems in exchanging information have been minimized.					
IFIMS has improved the effectiveness and efficiency of public expenditure programmes.					
IFMIS can trace all the stages of a transaction process hence enhancing transparency and accountability of the process.					
IFMIS allow for cross-referencing of personal identification numbers and asset inventories that has reduced cases of fraud significantly.					
Built-in features within IFMIS facilitate effective monitoring and evaluation of public sector's activities.					
IFMIS provide auditable financial statements from the authority.					
Since the implementation of IFMIS, there is enhanced confidence and credibility of the authority's budget.					
Use of IFMIS has greatly enhanced securing of information which minimizes risk of corruption and improved reliability of the system.					

Section D: Financial Reporting Systems

13. To what extent do financial reporting systems in IFMIS affect financial management in your offices?

i)   Very great extent ☐

ii) Great extent ☐

iii) Moderate extent ☐

iv) Little extent ☐

v)   No extent ☐

14. To what extent do the following aspects of financial reporting systems in IFMIS affect financial management in your offices?

	Very great extent	Great extent	Moderate extent	Little extent	No extent
Budget preparation and approval					
Security					
Macro fiscal forecasting					

15. To what extent do the following aspects of financial reporting systems in IFMIS affect financial management in your offices?

	Very great extent	Great extent	Moderate extent	Little extent	No extent
Accuracy					
Promptness					
Authenticity					
Relevance					

16. Please indicate whether you agree or disagree with the following statements by placing a tick (√) inside appropriate box: 5 – Strongly agree, 4 – Agree,   3 – Neutral, 2 – Disagree, 1- Strongly disagree.

	1	2	3	4	5
I can easily extract and present data from IFMIS in ways that facilitate analysis.					
Through IFMIS I am able to reconcile transactions data in real time.					
IFMIS systems enable me to generate custom reports					

for internal and external use.				
IFMIS offers real-time financial information that enhances my decision making abilities.				
With IFMIS, I have at my disposal information that can quickly provide year to year balances which can be used for analysis throughout the year.				
IFMIS enables me to understand the true cost of service delivered per activity.				
I can access IFMIS to derive the specific information I require to carry out my work.				
There are built-in analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations in the office.				
I can easily access non-financial information such as employee number and cadre.				
IFMIS accurately disclose the financial position to the public.				

Section E: Financial Management of Public Sector

17. What has been the trend of the following aspects of financial management in your institution since you adopted the use of IFMIS?

	Very great extent	Great extent	Moderate extent	Little extent	No extent
Monitoring of financial resources.					
Planning of financial resources					
Audit scrutiny					
Controlling of financial resources					
Directing of financial resources					

THANK YOU