FACTORS AFFECTING THE IMPLEMENTATION OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IN THE PUBLIC SECTOR IN KENYA

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ABSTRACT

The purpose of this study was to assess factors affecting implementation of Integrated Financial Management Information System [IFMIS] on performance of Public Sectors in the Republic of Kenya. IFMIS is operational in both the National and County Governments. The System guarantees that each expenditure is not only traceable at the same time delivering optimal Value for Money. The study was be guided by their search questions. Financial Management information Systems are not a new phenomenon. Over the last decade the Government of Kenya has undertaken a number of PFM reforms aimed at enhancing accountability and Transparency. These reforms have targeted the Core PFM Systems of budget formulation and execution, public procurement, revenue collection, internal and external Audit, Payroll and Pensions, Public debt and guarantees, Accounting and Reporting. This calls for sustained implementation of the Government's reform programs. One of the major reforms embarked on, is the automation of Public Financial Management processes. The introduction of the Integrated Financial Management system, Electronic Funds Transfer, the Pension system and the Public debt management systems among others, have been premised on the realization that ROK can effectively leverage existing and emerging technology to enhance the pace of reforms. These initiatives have drawn support from Development Partners, including the World Bank, that have worked closely with the Kenya Government in implementing the reforms. The broad objective of these reforms is to strengthen PFM systems by enhancing transparency, accountability and responsiveness to public expenditure policy priorities. This Study was be useful to the Government of Kenya aimed at not only enhancing IFMIS but also addressing the challenges that impede the successful implantation of the system. The Data collected was analyzed both quantitatively and qualitatively. The information was integrated and expressed in percentages and frequencies. Tables, graphs and pie charts were used in the presentation of the findings. The study found out that there was a positive and a significant relationship between ICT infrastructure and Implementation. Cost had a positive and a significant relationship with Implementation of IFMIS. Corporate culture positively and significantly influenced Implementation of IFMIS. Capacity building and training had a positive and a significant relationship with Implementation of IFMIS. The study concludes that public sectors staffs can easily extract and present data from IFMIS in ways that facilitated analysis. Information security risks in IFMIS affected specific information that staffs required to carry out their work. IFMIS enabled public sector staffs to trace all stages of transaction processing in the State Department. IFMIS made bank reconciliation automatic thus allowing a closer monitoring of outstanding bill and cash in bank account. The ministry had enough capacity to effectively promote use of IFMIS. The study recommends that public sectors staffs ought to easily extract and present data from IFMIS in ways that facilitate analysis. Information security risks in IFMIS ought to affect specific

information that staffs requires to carry out on their work. Public service staffs ought to be comfortable with the introduction of IFMIS. IFMIS ought to upgrade to improve public service performance. IFMIS ought to improve the effectiveness and efficiency of public expenditure programs. Staff training ought to enable the staffs to feel motivated to deliver better on their job. The ministry ought to have enough capacity to effectively promote use of IFMIS.

Key Words: *implementation, integrated financial management information system, public sector, Kenya*

INTRODUCTION

The study was aimed at investigating the factors affecting the successful implementation of the Integrated Financial Management Information System in Public Sector in Kenya. The Kenya Government has implemented the Integrated Financial Management Information System (IFMIS) since the year 2005 as its sole accounting system. The reason why the Kenya Government adopted the use of this system was as a result of the numerous benefits envisaged from its effective use (ROK, 2005). However, for now over five years of implementation, this system has still not been able to fully provide the expected benefits of integrated financial planning, implementation and control of public expenditure.

The Government of Kenya has adopted the United Nations Standard Product and Services Classification (UNSPSC) for all items to be used for Procurement of goods and services. UNSPSC is a system of classification for commodities cutting across all private and public sectors having a single version of cataloging for all known items to be used. The UNSPSC thus become the new way of capturing all procurement items going forward. The items have been defined in the system, thereby facilitating the procurement process.

Integrated Financial Management System

According to Arnety & Wepukhulu (2013) IFMIS refers to the computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for the purpose of financial management. According to (Dorotinsky, 2003) an IFMIS is an information system that tracks financial events and summarizes financial information.

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

Public Financial Management reforms have been identified as the key drivers to efficient Public service delivery and creation of wealth and employment, ensuring that the Government and its Departments raise, manage, and spend public resources in an efficient and transparent way with the aim of improving service delivery. Governments in developing Countries are increasingly exploring methods and systems to modernize and improve Public Financial Management (Govende, 2012).

All over the world there is increased determination to enhance the quality of public financial management with many developed and developing countries making vital and impressive achievements in strengthening management of finance in their public sector. According to a report by the United States Agency for International Development (USAID, 2008), the introduction of a new IFMIS system is accompanied by a plethora of issues which needs to be planned for. These include aspects related to legal frame work, business/functional processes, organizational arrangements, budget classification structures, chart of accounts, change management, systems requirements/specifications, systems development, procurement of software and hardware, configuration of software and hardware, and data conversion / migration.

Further, Diamond & Khemani (2005), assert that governments and their Departments have found it difficult to provide an accurate, complete, and transparent account of their financial position to parliament to other interested parties, including donors and the general public. This lack of information has hindered transparency and the enforcement of Accountability in Government, and has only contributed to the perceived governance problems in many of these Countries in the past decade, developing countries have been encouraged to reform their public expenditure management systems and have increasingly embarked on major projects to computerize their Government operations (Musgrave, 2009).

For example, over the years, there has been an introduction of the Integrated Financial Management Information System as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting. These cope and functionality of an IFMIS varies across Countries, but normally it represents an enormous, complex, strategic reform process. This study is expected to uncover weaknesses experienced by developing Countries in rolling out new systems. Hendricks (2012) found that lack of commitment, lack of capacity, institutional and technical challenges were risk factors to successful implementation. This study therefore is aimed at investigating factors that lead to successful implementation of IFMIS in Public Sectors in Kenya.

The Public Sector

Public Sector in Kenya includes but not limited to Ministry's, State Corporations, independent Constitutional Commissions, Semi-Autonomous Government Agencies, Universities and Hospitals. These organizations are established through institutional Acts of Parliament.

Therefore, this study was limited to state departments. Various factors determine the success of IFMIS development and implementation in these institutions at large. In this Research Project Report the purpose was to identify some of the challenges and to present solutions that can serve as best practice guidelines in the implementation of an IFMIS (Diamond & Khemani, 2005)

The Research study was aimed to address and identify the challenges relating to the implementation of an IFMIS and to present best practice guidelines that was facilitate a successful implementation of an IFMIS in Kenya Public Sector. The methodology used was that of a literature study where theories are explored and used to solve a research problem. According to (Cooper and Schindler, 2006), theory is a set of systematically inter-related concepts, definitions and propositions that are advanced to explain or predict phenomena (facts). Good theories and models provide causal accounts of the world allow one to make predictive claims under certain conditions, bring conceptual coherence to a domain of science and simplify our understanding of the world (Mouton, 2001).

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

Arguably, using the term "IFMIS" can sometimes be erroneously interpreted as describing a system that can capture all the functional processes, and the relevant financial flows, within public expenditure management. However, the complexity of information systems within the Government sector is, to a large extent, due to the multiplicity of functions and policy areas. IFMIS can be explained to be a management tool, a system, and it should provide a wide range of non-financial and financial information. Over the years, according to Chene (2009), there has been an introduction of the IFMIS as one of the most common financial management reform practices aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting.

In the context of the current development planning and visioning strategy (ROK, 2008), Kenya's development goal is to create and sustain a high level of economic growth whose benefit are invested to ensure a just and cohesive society enjoying equitable social development in a clean and secure environment. To achieve this, the Public Expenditure and Financial Accountability

(PEFA) Program founded in 2001 take a country's public expenditure, procurement and financial accountability systems as crucial in assisting Governments to serve their citizens better.

The foundations for establishing a viable and sustainable Information and Communication Technology (ICT) industry and the opportunities it offers against the challenges many African countries face in their concerted efforts to participate fully in the information society and knowledge economy (Rozner, 2008). Key ICT Policy thrusts are discussed focusing on the ICT as a sector, e-government, e-governance and the education and training sectors. It is important to emphasize the need for Government to be E-literate in order to competently manage and monitor the ICT sector. It is reaffirmed that ICT is Cross cutting and an enabler for growth and development and for maximum benefit, countries must establish the right policy interventions, resource investments, appropriate networks (partnerships) and enabling environment.

Concept of implementation of IFMIS

The Economic Recovery Strategy for Wealth and Employment Creation (ROK, 2003), identified PFM reforms as key to achievement off is sustainability and balance in the Public economy, restructuring and re-allocations for growth and poverty alleviation, improved public sector performance and efficiency and effectiveness in the National Government. National Government utilizes public finance to provide goods, works and services to members of the public and does so by way of the public sector.

The Organization for Economic Co-operation and Development (OECD, 2007) describes the public sector as comprising the general government sector plus all public corporations including the central bank. According to the Oxford Policy Management (Oxford Policy Management Limited; 2011), the way public sector budget is set, managed, and reported on and the strengthening of public financial management is due to an increased demand for transparency in the way public funds are used the realization of that Public Financial Management (PFM) is pivotal to economic and developmental success.

The Kenya Vision 2030 (ROK, 2008) has a vision or Public service as "a citizen-focused and results-oriented" institution serving a rapidly growing economy and society. Furthermore, Kenya recognizes that a modern and results-focused public service is a pre-requisite for the country's socio-economic transformation as envisaged under Vision 2030. To this end, measures have been initiated in order to improve public service delivery with the-government being one of them. The Constitution sets out the overall guidelines on the management of public resources and provides for enactment of specific legislation to give effect to the same.

The Strategy for Public Finance Management Reforms in Kenya 2013– 2018 (ROK, 2013) provides a framework for implementing reforms envisaged in the Constitution, the Public Finance Management Act 2012 and other Public Finance legislation (enacted pursuant to the provisions of Chapter 12 of the Constitution), as well as taking forward the reform agenda started under the 2006-2011 PFM strategy. Kenya has been implementing a broad-based public reform

program partly founded on an e- Government vision which was officially articulated in 2004 with the adoption of the E- Government Strategy. Numbers of institutions have been setup to help in the attainment of this vision such as the Kenya E-Government Secretariat and solutions adopted such as Integrated Financial.

The IFMIS Re-Engineering Strategic Plan 2011-2013, said that the development of the IFMIS an Oracle based Enterprise Resource Planning (ERP) Software, started in 1998 whilst deployment of the system to line ministries, Accounts Payable, Accounts Receivable, General Ledger and Cash Management as well as supplying analytical tools. There port says that this system has been deployed inline Ministries and the IFMIS Re-Engineering Strategic Plan 2011-2013 states that in line with the Public Financial Management Act 2012 (Article12), the IFMIS has been implemented to connect all Government Ministries, agencies and departments to a core network for purposes of effecting a single public financial management system, there has been stabilization of three accounting modules i.e. General Ledger, Purchasing Order and Accounts Payable and activation of additional modules such as cash management, accounts receivables, and fixed assets.

The report further states that there has been the development of a new Single Chart of Accounts (SCOA) mapped into the IFMIS system and the 2012-2013 National budgets developed using the new SCOA. The district Vote book system was also updated with the new SCOA. IFMIS has also developed and implemented Plan to Budget system that has enhanced the efficiency and effectiveness of budget making which was used to develop the revised budget in December 2012. A Procure to pay system is under development and once fully implemented, the full procurement process from planning, requisition, procurement of goods and services, and payment of suppliers was be automated. Finally, an IFMIS Academy has been established to build capacity of IFMIS end users in Ministries, Departments and Agencies.

Possible Factors

As asserted by Hendris (2012), the effective implementation, operation and maintenance of IFMIS require staff with the necessary knowledge and skills. However, lack of capacity he argues that it is an inhibition to effectiveness of IFMIS. Lack of capacity, according to this scholar, is regarded as one of the major causes for the delay in the implementation process experienced by Ghana. In Tanzania emphasis on capacity building via training was observed to be one of the primary contributors to their success. Resistance to change amongst staff was noted by Chene (2009) to be a factor that could possibly derail the implementation of IFMIS.

The implementation of IFMIS is said to be a complex, risky, resource –intensive process that requires major procedural changes and often involves high-level officials who lack incentives for reform. Chene asserts that indeed IFMIS implementation demands a commitment for change. Rodin-Brown, (2008) argues that three some institutional challenges that hinder effective

implementation of IFMIS. This is supported by the assertion that the introduction of IFMIS involves more than only automation of public finance tasks and processes.

There are a number of institutional issues that should be anticipated and planned. These include organizational arrangements, the legal framework, and business functional processes amongst others. This research proposal is expected to examine factors affecting IFMIS across the central government, the Judiciary, Parliament, Local Authorities, Disciplined Forces, and State Corporations – shows that the basic pay in central government is substantially lower for the same educational qualifications, experience and ability. The implementation of a new or upgraded system in your distribution operations can be a daunting task. Many things can lead a system project off track. To prevent this, consider five key project components that have proven effective in providing successful outcomes to these implementations.

Upper management is always involved in the financial support of a systems project. Some executives focus only on the financial justification and the payback of the project. However, the key to a successful implementation is to also convince them of the business advantage of a systems change. Success of the project depends on the executive team believing that the new system was providing the company with a new competitive advantage to service customers better.

When that belief is in place, executive sponsors can champion the project when it hits its inevitable rough spots. They can effectively allocate additional resources to shore up tasks falling behind, arbitrate differences in a timely manner and reinforce expectations during conversion. They can spread the energy and excitement about what this change was mean to all involved.

STATEMENT OF THE PROBLEM

The National Treasury of Kenya introduced the Integrated Financial Management Information System (IFMIS), as part of PFM reform initiatives aimed at automating and streamlining, Government's Financial Management processes and procedures. The subsequent IFMIS Re-engineering Strategic Plan (2013-2018) of the National Treasury of Kenya was developed by the progress of implementation and the changes in the Government structure. The focus of the second Strategic Plan was to ensure optimal use of the system in national and county governments in contribution towards efficient and effective management of public funds. Problems prior to IFMIS Re-engineering included frequent system shutdown due to lack of professional support and inefficient infrastructure, insufficient networking, insufficient strategic focus, limited system ownership and less than optimal human resource development to support system users. The National Youth Service (NYS) lost about Sh1.5 billion to firms in a scandal that is currently under investigation by the National Assembly's Public Accounts Committee. IFMIS has led to delaying salaries due to frequent shutdown. IFMIS connectivity has slowed down approval of procurement requests. This phase of implementation is on-going, with concurrent implementation of the IFMIS Security solution. Miheso (2013) studied the adoption

of Integrated Financial Management Information System (IFMIS) by the National Government in Kenya. The study showed that on average adoption was above 50% with some going as high as 80%. Initially, the implementation was done correctly in some institutions for example in the Central bank but this has not been met with resounding success in the ministries and has not attained most of the intended objectives. At the same time, not all disciplines used the system. In view of the fact that only the three modules above were in operation, only accountants and procurement officers operated the system. Finance/budget officers, and Accounting officers in charge of their ministries did not have access or use of the system. In 2010, the Government developed a Master Plan for IT shared services across the 42 ministries and 175 local authorities. The government recognized that the investments in the current IFMIS must be balanced with the requirements of the new Constitution and the need for automation. This called for an automated budgeting system for the financial year 2011/12. The program activated additional financial modules-Cash Management, Fixed Assets, and Accounts Receivable in ten pilot ministries.

MAIN OBJECTIVE

The broad objective of the study was to assess the factors that affect the implementation of the Integrated Financial Management Information system in Public Sector in Kenya.

SPECIFIC OBJECTIVES

1. To examine the effect of Information Communication Technology on implementation of IFMIS systems in Public Sector.
2. Establish how cost affects the implementation of IFMIS systems in Public Sectors.
3. Investigate how Capacity Building and Training affects the implementation of IFMIS systems in Public Sectors.
4. Investigate how Corporate Culture affect the implementation of IFMIS systems in the Public Sector.

THEORETICAL FRAMEWORK

Diffusion of Innovation Theory

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

Adoption of a new idea, behavior, or product (that is, innovation) does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that was help or hinder adoption of the innovation (Rodgers, 2003). According to Medlin (2001), Rodger's theory of innovation's diffusion is the most appropriate in understanding the adoption of a given technology. In the context of the current study, therefore mentioned theory enables the investigation of adoption of IFMIS by County Governments. As Rodgers posts, adoption is a decision of full use of an innovation as the best course of action available, while rejection is a decision not to adopt an innovation. This reasoning was be applied to explain embracing of and resistance to IFMIS in County Governments.

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

It is re commended that, as one way of enhancing the diffusion of a technology (or innovation), it is of particular importance to understand the innovation decision process. The process entails five phases which include knowledge, persuasion, decision, implementation, and confirmation phases (Rodgers, 2003). The current study sought to investigate how the respective users are informed of the introduction of IFMIS in the system of County Governments. Also, it would be ration to understand how the elements of relative advantage. The above theory relates to the effect of cooperate culture on implementation of Integrated Financial Management Information System.

Social Learning Theory

Social learning theory is a theory of learning and social behavior which proposes that new behaviors can be acquired by observing and imitating others. It was proposed by Albert Bandura (1977).This is a theory of learning and social behavior which proposes that new behaviors can be acquired by observing and imitating others. It states that learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instruction, even in the absence of motor reproduction or direct reinforcement. In addition to the observation of

behavior, learning also occurs through the observation of rewards and punishments, a process known as vicarious reinforcement. When a particular behavior is rewarded regularly, it was most likely persisting; conversely, if a particular behavior is constantly punished, it was most likely desisting. The theory expands on traditional behavioral theories, in which behavior is governed solely by reinforcements, by placing emphasis on the important roles of various internal processes in the learning individual. The above theory relates to the effect of training on implementation of Integrated Financial Management Information System.

Information Systems Success Theory

Initial development of the theory was undertaken by Delone and McLean (1992) basing it from an earlier research on communications by Shannon and Weaver. This theory seeks to provide a comprehensive understanding of IS success by identifying, describing, and explaining the relationships among six of the most critical dimensions of success along which information systems are commonly evaluated. The earlier model advances six key pillars of Information Systems success i.e. System Quality, Information Quality, Use, User Satisfaction, Individual Impact as well as Organizational Impact. The above theory relates to the effect of information communication technology on implementation of Integrated Financial Management Information System. This relates to whether the introduction of IFMIS has been successful in Public Sectors. Using the six critical dimensions of IS success: information quality, system quality, system use/usage intentions, user satisfaction, and net system benefits.

Resource Based View Theory

Resource based Theory argues that a firm has the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, imperfectly imitable and non-substitutable (Berrchicci, 2013). Initiated in the mid-1980s by Wernerfelt (1984) the resource-based view (RBV) has since become one of the dominant contemporary approaches to the analysis of sustained competitive advantage. The supporters of these arguments argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it (Vogel & Guttel, 2013). The resource-based view is based on the idea that the effective and efficient applications of all useful resources that the company can muster helps determine its competitive advantage.

The goal of an organization is to ensure it has access to and control of valuable resources by developing and securing all the relevant resources either internally or externally. The source of an organization's competitive advantage lies mainly in how it exploits its distinctive internal resources and competencies, by setting strategic objectives based on what they enable it do. The above theory relates to the effect of cost on implementation of Integrated Financial Management Information System.

EMPIRICAL LITERATURE REVIEW

Change management strategies should be developed immediately an IFMIS project is conceived. Consideration for change implications for different stakeholders; be they politicians, senior officials, heads of departments, IT personnel, civil servants, amongst others who are expected to support the new system ought to be taken (Rozner,2008). It is warned that failure to address this issue early in the project and possibly prior to the project commencement, then the IFMIS is bound to face resistance and derailments from executive officials, elected political leaders and personnel who are anticipated to use the system regularly.

Rozner (2008) and Rodin-Brown (2008), assert that the most convenient method of overcoming change resistance is by ensuring that there is clear communication, education and training and also via 'quick wins' that demonstrate the benefits of the change. Communication can be executed through a variety of media, seminars, workshops, training sessions, organization's website, conferences and/or newsletters. Through the IFMIS Re-engineering process as outlined in the Kenya's IFMIS Re-Engineering Strategic Plan2011–2013, the Kenyan government hopes to address the change management and communication challenges previously experienced in the pilot phase of IFMIS implementation, which greatly contributed to lack luster performance of the system.

The strategic plan identifies the political, administrative and capacity constraints that require rigorous interventions with the object of securing the buy-in and ownership attributes necessary within Government Ministries, Departments and Agencies (MDAs) to facilitate effective IFMIS implementation and improve the confidence of all relevant stakeholders (ROK, 2010). The Kenya's IFMIS Re-Engineering Strategic Plan incorporates a change management strategy (CMS) and recommended approaches for effective re-launch of the IFMIS components. The CMS is drawn from lessons learnt from past IFMIS implementation experiences, as well as best global practices for similar financial systems re-engineering programs or projects. The CMS's main object is to guarantee the requisite buy-in from all stakeholders and ensure that all stakeholders work together in concert to successfully implement and sustain the IFMIS Re-engineering process (ROK, 2010). Every organization has asset of unstated rules by which the transformation process is managed. The IFMIS Re-engineering process was align the IFMIS.

It is not worthy that according to Brar (2010), low capacity for system implementation at the sub-national level such as provincial and regional governments is one of the main challenges in the implementation of the IFMIS in developing countries. This factor according to him is very pertinent to the South African context with its nine provinces and the consequent demand that the duplication of efforts creates for skills and knowledge, of which a shortage already exists. Farelo & Morris (2006) further contend that the personnel development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within the government.

The external consultant should have extensive experience in the public sector financial management. The consultant should essentially be an expert in design, implementation, management and operation of government accounting, budget and financial management systems especially in a developing country's environment. He or she must have experience in the management and operation of modern computerized financial systems in a government budgeting and accounting environment. Complementary experiencing training, management development, human resource management and organizational change in developing countries ought also to be a prerequisite. The consultant, finally, should also have experience in project management and implementation, working in the advisory and training capacity in developing countries. The Scholars caution that the consultants need to be managed closely since they may be inclined towards pursuing their own interests to the detriment of the institution's IFMIS objectives (Diamond & Khemani, 2006).

Murphy (2004) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Systems improvements (that is, macro model, MTEF, performance budgeting, cash management, IFMS, payroll / personnel systems) are typically undermined by failure to address complimentary human resource (man power planning, recruitment, incentives, training), organizational restructuring and improved management capacity (delegation, middle management empowerment, team building).He further posts that IFMIS implementation is hindered by over-complex change projects requiring high levels of technical and management capacity. According to ROK (2010), the Kenya's IFMIS Re-Engineering Strategic Plan 2011–2013 has identified appropriate capacity building for system's sustainability, competent firms and consultants supporting the implementation as some of the key success factors for the IFMIS Re-Engineering Strategy. Kwena (2013) in his study of Kenya's ministries found that the capacity and technical l know how was low due to lack of training and hurried implementation of the system. Here commends that the users of the system need to undergo on-the-job training in order to improve their skills and capacity to use the system.

The scope and functionality of IFMIS canary from basic general ledger accounting application to a comprehensive system covering budgeting, accounts receivable or payable, cash management, commitment control, debt, assets and liability management, procurement and purchasing, revenue management, human resource management and payroll (Rozner, 2008). Its role is to connect, accumulate, process and then provide information to all parties in the budget system on a continuous basis (Diamond & Khemani, 2006). It is therefore imperative that the system should be able to provide the required information timely and accurately, because if it does not it was not be used and cease to fulfill its central function as a system.

An IFMIS can improve public financial management in a number of ways, but generally seeks to enhance confidence and credibility of the budget through greater comprehensiveness and transparency of information. The purpose of using an IFMIS is to improve budget planning and execution by providing timely and accurate data for budget management and decision-making

(Chêne, 2009). A more standardized and realistic budget formulation process is allowed for and improved control over budget execution is affected through the full integration of budget execution data.

RESEARCH METHODOLOGY

Research Design

The researcher adopted Descriptive Research Design. Descriptive Research Design involves measuring a set of variables as they exist naturally (Gravetter & Forzano, 2011) and seeks to provide answers to immediate questions about a Current State of affairs (Matthews & Kostelis, 2011). Descriptive research design is suitable because it minimizes bias and maximize reliability. According to Denscombe (2007), descriptive design emphasizes on producing Database done real world observation through a purposeful and structured approach. Researchers can draw inferences about relationships between variables from related variations so find dependent and independent variables (Polit & Beck, 2001). Descriptive Research Design was used because of its ability to provide a snapshot of the current state of affairs. In this study, the major variables that studied was be factors that affect the implementation of the Integrated Financial Management Information System [IFMIS] in Public Sector.

Study Population

A population is the total set of elements about which a researcher wishes to make some inferences; where population elements refer to the subject on whom the measurement is being taken (Cooper & Schindler, 2005). The population of the study is 45 state departments in 21 ministries currently implementing the IFMIS.

Sampling Technique and Sample Size

Saunders, Lewis and Thorn hill (2009), define the sampling frame as the complete list of all the cases in the population from which a probability sample is drawn. Stratified random sampling method was be used to select a sample of 45 State department representatives. The sampling frame describes the list of all population units from which the sample was be selected. The sampling technique was be appropriate since the population is divided into subgroups. Sample size may be defined as a small section of apart that represents the larger whole (Saundersetal 2009). Hence, the 45 sample units were based on proportionate representation of the total population. The target population of the study was 45 government departments which is small and easily accessible. The study therefore included all the 45 state departments in the study hence a census. Saunders (2009) argued that in situations where the population is small and below 100, a census study would be more appropriate for the purposes of generalizing the findings to the entire population.

Data Collection Methods

Data collection method was Primary Data gathered directly from respondents through Questionnaires whereas secondary data was got from published reports. The business dictionaries. Com (businessdictionary.com, 2013) define as a Questionnaire as a list of a research or survey questions asked to respondents, and designed to extract specific information and that it serves four basic purposes which are to collect the appropriate data, to make the data comparable and amenable to analysis, to minimize biasing formulating and asking question, and to make questions engaging and varied. To determine the extent of IFMIS adoption data in the questionnaire is collected using a Likert scale to determine the extent of adoption of different modules of IFMIS. To establish the challenges faced in the adoption of IFMIS, data in the questionnaire is also collected using a Likert scale. To establish the determinants in adoption of IFMIS data was be collected using a 5-point scale.

Data Analysis and Presentation

Data analysis was done using Descriptive Statistics to compute percentages of the outcomes and draw bar and pie charts to show the outcomes of extent of IFMIS adoption and challenges of IFMIS adoption in Kenya. The descriptive statistical techniques which were used include mean and standard deviation as well as percentage frequencies. Descriptive statistics enable the researcher to summarize and organized attained effective and meaningful way and provide tools for describing collections of statistical observations and reducing information to an understandable form. Inferential statistics were used to make decisions or inferences for example correlation analysis, by interpreting the data patterns to establish the determinants in the adoption of IFMIS by the National Government in Kenya. The procedure for data analysis began by first coding and entering the data in the Statistical Package for the Social Sciences (SPSS), computer software used for analyzing data. Coding, in essence, entails the attribution of a number to a piece of data, or group of data, with the express aim of allowing such data to be analyzed in quantitative terms (Denscombe, 2007). The factors affecting implementation of integrated financial management was tested using linear regression analysis. Linear regression model was be applied as shown below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y is the dependent variable (Effective implementation of IFMIS); X1 is ICT Infrastructure; X2 is costs; X3 is Corporate Culture; X4 is Capacity Building and Training; β_0 is the regression constant or intercept; β_1, β_2, β_3, and β_4 are the unknown parameters (regression coefficients) and ε is the error term

Before carrying a regression analysis, the researcher conducted diagnostic tests to determine the suitability of data set for regressing. The diagnostics were used to test if the general information of the respondents how it affects the main objective of the study implementation of intergraded financial management information. These diagnostic tests included Multicollearity, Normality,

and Heteroscedasticity. Normality test was done using Kurtosis and Skewness. Data analysis proceeded if the kurtosis and skewness is between +2 and -2 as this was an indicator that the data has a Normal distribution (Kothari, 2004). Multicollinearity was checked using the Variance Inflation Factor VIF, to show how the variables are correlated. If VIF is between 1-5, the variables were not correlated and hence the test deemed it valid. Heteroscedasticity test was useful in examining whether there was difference in residual variance of the observation period to another period of observation (Godfrey, 2008), and it was done using scatter plot.

RESEARCH RESULTS

The main objective of the study was to assess the factors that affect the implementation of the Integrated Financial Management Information system in Public Sector in Kenya. The study was guided by the following specific objectives: to examine the effect of Information Communication Technology on implementation of IFMIS systems in Public Sector. To establish how cost affects the implementation of IFMIS systems in Public Sectors. To investigate how Capacity Building and Training affects the implementation of IFMIS systems in Public Sectors. To investigate how Corporate Culture affects the implementation of IFMIS systems in the Public Sector. The study adopted descriptive research design to establish the effect the implementation of the IFMIS. The population of the study was 45 state departments in 21 ministries currently implementing the IFMIS. Stratified random sampling method was be used to select a sample of 45 State department representatives. Data collection method was Primary Data gathered directly from respondents through Questionnaires whereas secondary data was got from published reports. Data collection method was Primary Data gathered directly from respondents through Questionnaires whereas secondary data was got from published reports. The descriptive statistical and inferential statistics techniques was used.

Corporate Culture and Implementation of IFMIS

The study found out that majority of the respondents agreed that IFMIS had improved the effectiveness and efficiency of public expenditure programs as supported by a mean of 3.946 with standard deviation of 0.918. Majority of the respondents agreed that the implementation of IFMIS work performance had improved as supported by a mean of 3.836 with standard deviation of 0.816. Majority of the respondents agreed that that since the implementation of IFMIS, there was enhanced confidence and credibility of the State Departments' budget as supported by a mean of 3.792 with standard deviation of 0.836. The study further established that majority of the respondents agreed that they were comfortable with the introduction of IFMIS as supported by a mean of 3.639 with standard deviation of 0.928. Majority of the respondents agreed that built- in features within IFMIS facilitated effective monitoring and evaluation of State Department's effectiveness as supported by a mean of 3.527 with standard deviation of 0.856. Respondents agreed that IFMIS was upgraded to improve their performance as supported by a mean of 3.538 with standard deviation of 0.794. Majority of the respondents moderately agreed that IFMIS had negatively affected their job performance as supported by a mean of 2.981 with

standard deviation of 0.972. The findings of regression analysis established that corporate culture significantly influenced implementation of IFMIS.

ICT Infrastructure and Implementation of IFMIS

The study found out that majority of the respondents agreed that they can easily access non-financial information such as employee number and cadre by a mean of 4.085 with standard deviation of 0.926. Majority of the respondents agreed that they can easily extract and present data from IFMIS in ways that facilitated analysis as shown by a mean of 3.958 with standard deviation of 0.973. Respondents agreed that the IFMIS modern ICT equipment enabled them to generate custom reports for internal and external use as supported by a mean of 3.938 with standard deviation of 0.783. Respondents agreed that there were inbuilt analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations at the State Department as supported by a mean of 3.839 with standard deviation of 0.848. The study pointed out that majority of the respondents agreed that information security risks in IFMIS affected specific information they required to carry out their work as shown by a mean of 3.746 with standard deviation of 0.837. Respondents agreed that through IFMIS computer technologies, they were able to reconcile transactions data in real time as supported by a mean of 3.682 with standard deviation of 0.916. Majority of the respondents moderately agreed that IFMIS accurately disclosed the financial position of the State Department as supported by a mean of 3.381 with standard deviation of 1.084. The finding of regression analysis further established that ICT infrastructure influenced implementation of IFMIS in public sectors.

Capacity Building and Training

The findings show that majority of the respondents agreed that staff training enabled them feel motivated to deliver better on their job as supported by a mean of 3.983 with standard deviation of 0.918. Majority of the respondents agreed that training policy within IFMIS facilitated effective monitoring and evaluation of State Department's effectiveness as supported by a mean of 3.983 with standard deviation of 0.811Respondents agreed that they had enough skills and knowledge to implement the use of IFMIS as supported by a mean of 3.918 with standard deviation of 0.837. Majority of the respondents agreed that since training of IFMIS, there was enhanced confidence and credibility of the State Departments' budget as supported by a mean of 3.879 with standard deviation of 0.981. The study pointed out that majority of the respondents agreed that after going through training there was a positive change in job behavior as supported by a mean of 3.866 with standard deviation of 0.928. Majority of the respondents agreed that the ministry had enough capacity to effectively promote use of IFMIS as supported by a mean of 3.847 with standard deviation of 0.938. Majority of the respondents agreed that training on IFMIS had improved the effectiveness and efficiency of public expenditure programs as supported by a mean of 3.664 with standard deviation of 0.973.The findings of regression analysis further established that capacity building significantly influenced implementation of IFMIS in public sectors.

Cost and Implementation of IFMIS

The study found out that respondents agreed that IFMIS enabled them to trace all stages of transaction processing in the State Department as supported by a mean of 4.082 with standard deviation of 0.876. Majority of the respondents agreed that IFMIS had automated procedures and internal controls which promoted accountability as supported by a mean of 3.961 with standard deviation of 0.838. Majority of the respondents agreed that IFMIS made bank reconciliation automatic thus allowing a closer monitoring of outstanding bill and cash in bank account as supported by a mean of 3.928 with standard deviation of 0.732. Respondents agreed that IFMIS had ensured that the State Department budget was executed in accordance with the rules to prevent overspending as supported by a mean of 3.684 with standard deviation of 0.917. The study further pointed out that majority of the respondents agreed that IFIMIS had streamlined procedures and significantly reduced opportunity for corruption as supported by a mean of 3.586 with standard deviation of 0.942. Majority of the respondents moderately agreed that all State Departments transactions, both receipts and payments were processed through IFMIS as supported by a mean of 3.436 with standard deviation of 0.958. Respondents moderately agreed that IFMIS had led to significant reductions in wasteful expenses and irregular expenditure as supported by a mean of 3.428 with standard deviation of 0.834. The findings of regression analysis further established that costs positively influenced implementation of IFMIS in public sectors.

DIAGNOSTIC TESTS

The researcher conducted normality test to establish whether the datasets are normally modeled by a normal distribution. The researcher used skewness and kurtosis to establish the normality of the datasets. The findings are as shown in Table 1.

Table 1: Normality Tests

|	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
ICT infrastructure	148	-.633	.199	.718	.396
Costs	148	-.597	.199	.256	.396
Corporate Culture	148	-.412	.199	.376	.396
Capacity Building and Training	148	-.351	.199	-.148	.396

The findings established that ICT infrastructure had a skewness of -0.633 and kurtosis of 0.718. Cost had a skewness of -0.597 and kurtosis of 0.256, corporate culture had a skewness of -0.412 and kurtosis of 0.376 and capacity building and training had a skewness of -0.351 and kurtosis of -0.148. The findings show that all the coefficients were ranged between +2 or -2 an indication that all the variables were both skewed and kurtotic. The researcher conducted multicollinearity test to establish whether the variables were highly correlated. This was measured by use of

Variance Inflation factor (VIF) not to be more than 10 while the equivalent for tolerance, not to be less than 0.1 (Okelo, Namusonge and Iravo, 2015). The findings are as shown in Table 2.

Table 2: Multicollinearity Results

Model	Collinearity Statistics	
	Tolerance	**VIF**
ICT infrastructure	.982	1.018
Costs	.317	3.150
Corporate Culture	.764	1.309
Capacity Building and Training	.338	2.957

The findings in Table 2 show that ICT infrastructure had a VIF of 1.018, costs had a VIF of 3.150, corporate culture had a VIF of 1.309 and capacity building and training had a VIF of 2.957. The findings show that all the variables had a VIF coefficient of less than 10 an indication that the variables were not correlated. This agrees with Okelo, Namusonge and Iravo (2015) who established that Variance Inflation factor (VIF) not more than 10 is sufficient for the study.
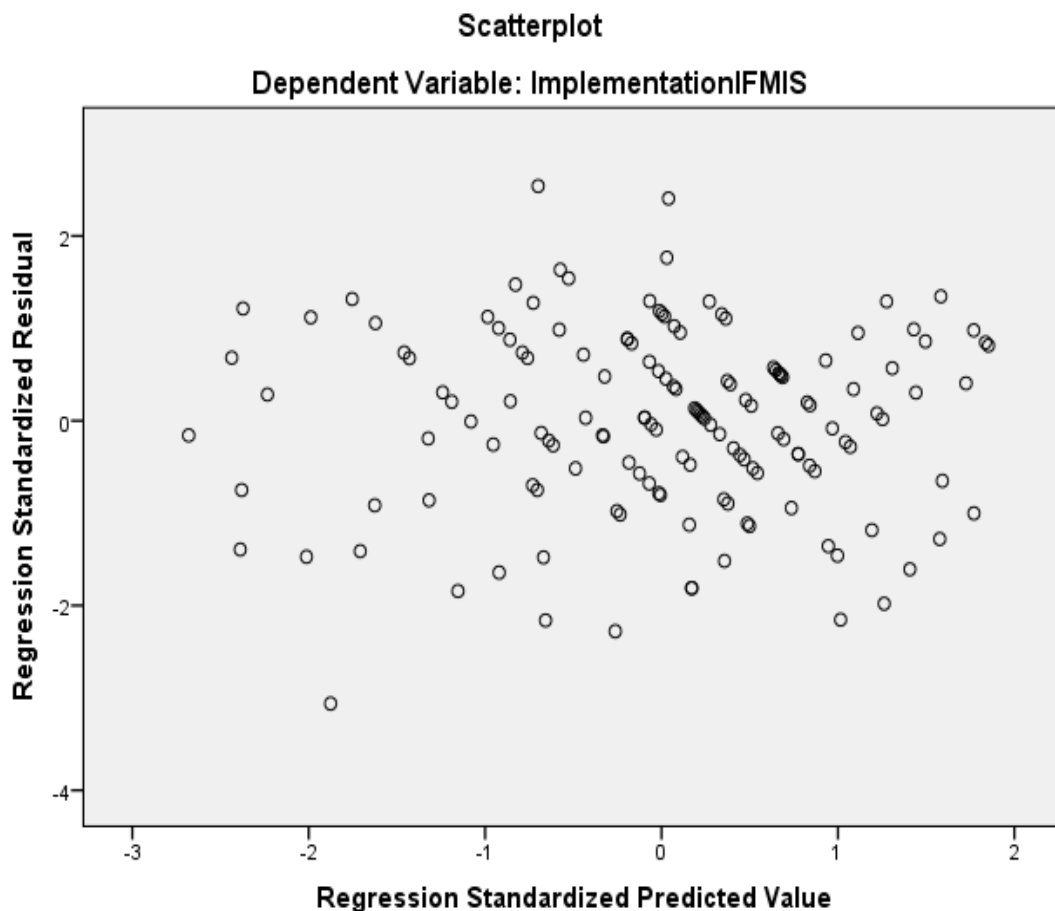
Figure 1: Heteroskedasticity

The researcher conducted heteroskedasticity test to establish whether the standard errors estimates were biased. The researcher used scatter plots to establish the relationship the presence of heteroskedasticity. The findings are as shown in Figure 1.

The findings in Figure 1 show that the dataset was concentrated forming a pattern. This implies that the datasets were not heteroscedastic hence homoscedastic an implication that the data set were not correlated which is desirable for modelling of the regression model.

INFERENTIAL STATISTICS

The researcher carried out multiple regression analysis to establish the factors that affect the implementation of the Integrated Financial Management Information system in Public Sector in Kenya. The findings of Model Summary, ANOVA and Regression Coefficients are as shown in Table 3.

Table 3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	6.468	.201		32.179	.000
Corporate Culture	1.052	.612	.138	1.719	.000
ICT infrastructure	.923	.125	1.096	7.384	.000
Capacity Building and Training	.414	.117	.107	3.538	.000
Costs	.324	.091	.123	3.560	.000
R=0.878 R^2=0.856 Adj R^2=0.851	Std. error=.0805		F=47.562	Df= (4,36)	Sig=.00

a. Dependent Variable: Implementation of IFMIS

Table 3 shows that coefficient of correlation was 0.878 an indication that the study variables significantly influenced implementation of IFMIS. Coefficient of adjusted determination was 0.851 which translates to 85.1%. This indicates that variations in dependents variable was explained by the independent variables (ICT infrastructure, costs, corporate culture and capacity building and training). The residual of 14.9 % can be explained by other factors beyond the scope of the current study.

The Analysis of Variance AVOVA at 5% level of significance indicates an F calculated value of 47.562. The value of F critical (at df. 4,36) was 2.641. The findings show that F Calculated > F Critical (47.562 >2.641) indication that the overall regression model significantly influenced the study. The p value was 0.00<0.05 an indication that the study variables significantly influenced implementation of IFMIS. The findings in Table 3 above gives the following regression equation;

$$Y = 6.468 + 1.052X_1 + 0.923X_2 + 0.414X_3 + 0.324X_4$$

Where: Y = Implementation of IFMIS; X_1 = Corporate Culture; X_2 = ICT infrastructure; X_3 = Capacity Building and Training; X_4 = Costs

From the findings, when all factors (ICT infrastructure, costs, corporate culture and capacity building and training) were held constant, implementation of IFMIS would be at 6.468. A unit increase in corporate culture when all the other factors were held constant, implementation of IFMIS would be at 1.052. A unit increase in ICT infrastructure when all other factors were held constant, implementation of IFMIS would be at 0.923. A unit increase in capacity building and training when all the other factors were hold constant, implementation of IFMIS would be at 0.414. A unit increase in costs when all other factors were held constant, performance would be at 0.324.

The study pointed out that corporate culture positively and significantly influenced Implementation of IFMIS as supported by (β= 0.138, t= 1.719 and p=0.00<0.05). This was attributed to the following factors; implementation of IFMIS improved work performance of state departments, staffs were comfortable with the introduction of IFMIS, IFMIS upgraded staff's performance and improved the effectiveness and efficiency of public expenditure programs. IFMIS facilitated effective monitoring and evaluation of State Department's effectiveness. This is supported by Rozner (2008) and Rodin-Brown (2008) who assert that the most convenient method of overcoming change resistance is by ensuring that there is clear communication, education and training and also via 'quick wins' that demonstrate the benefits of the change.

The research findings revealed that there was a positive and a significant relationship between ICT infrastructure and Implementation of IFMIS (β= 1.096, t= 7.384 and p=0.00<0.05). This was due to the following factors; information security risks in IFMIS affected specific information that staffs required to carry out their work, IFMIS computer technologies was able to reconcile transactions data in real time and there were inbuilt analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations at the State Department. This is supported by Wafula and Wanjohi (2009) who states that governments are undertaking ambitious reforms to further revitalize or transform their public sectors IFMIS projects to have the basic system functionality clearly specified from the onset of the intervention.

The study further established that capacity building and training had a positive and a significant relationship with Implementation of IFMIS (β= 0.107, t= 3.538 and p=0.00<0.05). This was attributed to the following factors; staff training enabled respondents to feel motivated to deliver better on their job, the ministry had enough capacity to effectively promote the use of IFMIS, enough skills and knowledge to implement the use of IFMIS was embraced and training on IFMIS had improved the effectiveness and efficiency of public expenditure programs. Briar (2010) argues that low capacity for system implementation at the sub-national level, such as provincial and regional governments, is one of the major challenges in the implementation of IFMIS in developing countries.

The study established that cost had a positive and a significant relationship with Implementation of IFMIS (β= 0.123, t= 3.56 and p=0.00<0.05). This was attributed to the following factors; IFIMIS had streamlined procedures and significantly reduced opportunity for corruption. FMIS had ensured that the State Department budget was executed in accordance with the rules to prevent overspending. IFMIS enabled them to trace all stages of transaction processing in the State Department. This is supported by Berrchicci (2013) states that a firm has the ability to achieve and sustain competitive advantage regardless of the cost, possesses resources that are valuable, rare, imperfectly imitable and non-substitutable hence increasing its productivity levels.

CONCLUSIONS

The study concludes that corporate culture was the most significant variable that influenced implementation of IFMIS in public sectors in Kenya followed by ICT infrastructure, then capacity building and training and the least significant variable in the study was costs.

The study further concludes that implementation of IFMIS had led to improvement of work performance. Public service staffs were comfortable with the introduction of IFMIS. IFMIS was upgraded to improve their performance. IFMIS had improved the effectiveness and efficiency of public expenditure programs. Public sector staffs were able to reconcile transactions data in real time through IFMIS computer technologies. There were inbuilt analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations at the State Department. There was enhanced confidence and credibility of the State Departments' budget due training of IFMIS. Staff training enabled the staffs to feel motivated to deliver better on their job. The ministry had enough capacity to effectively promote use of IFMIS. IFMIS had ensured that the State Department budget was executed in accordance with the rules to prevent overspending. IFMIS enabled public sector staffs to trace all stages of transaction processing in the State Department.

RECOMMENDATIONS

The study recommends that implementation of IFMIS ought to lead to improvement of work performance. Public service staffs ought to be comfortable with the introduction of IFMIS. IFMIS ought to upgrade to improve public service performance. IFMIS ought to improve the effectiveness and efficiency of public expenditure programs. Public service ought to be enhance confidence and credibility of the State Departments' budget due implementation of IFMIS. Built-in features within IFMIS ought to facilitate effective monitoring and evaluation of State Department's effectiveness.

The study recommends that public sectors staffs ought to easily extract and present data from IFMIS in ways that facilitate analysis. Information security risks in IFMIS ought to affect specific information that staffs requires to carry out on their work. Public sector staff's ought to able to reconcile transactions data in real time through IFMIS computer technologies. There

ought to be inbuilt analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations at the State Department. Staffs ought to easily access non-financial information such as employee number and cadre. IFMIS modern ICT equipment ought to enable public sector staffs to generate custom reports for internal and external use and IFMIS ought to accurately disclose the financial position of the State Department.

The study further recommends that training policy within IFMIS ought to facilitate effective monitoring and evaluation of State Department's effectiveness. State departments ought to enhance confidence and credibility of the budget due training of IFMIS. Staff training ought to enable the staffs to feel motivated to deliver better on their job. The ministry ought to have enough capacity to effectively promote use of IFMIS. Public service staffs ought to have enough skills and knowledge to implement the use of IFMIS. There ought to be a positive change in job behavior after undergoing training. Training on IFMIS ought to improve the effectiveness and efficiency of public expenditure programs.

The recommends that IFIMIS ought to have streamlined procedures and significantly reduce opportunity for corruption. IFMIS ought to ensure that the State Department budget is executed in accordance with the rules to prevent overspending. IFMIS enabled public sector staffs to trace all stages of transaction processing in the State Department. IFMIS ought to make bank reconciliation automatic thus allowing a closer monitoring of outstanding bill and cash in bank account. IFMIS ought to have automated procedures and internal controls which promotes accountability. All State Departments transactions, both receipts and payments ought to be processed through IFMIS. IFMIS ought to lead to significant reductions in wasteful expenses and irregular expenditure.

REFERENCES

Allen, R. & Tommasi, D. (2011). *Managing public expenditure [electronic resource]: a reference book for transition countries*. Paris: OECD Publishing.

Amudo, A. and Inanga, E.L. (2009). *Evaluation of internal control systems: A case study from Uganda. International .Research Journal of Finance and Economics*, ISSN 1450-2887 Issue 27.

Arnety, N. M., Ujunju, M. O., & Wepukhulu, R. (2013). *Effects of Business Process Re-engineering on Implementation of Financial Management Systems*: A Case of Masinde Muliro University of Science and Technology. *Research Journal of Finance and Accounting*, 4(12), 90-96

Arens, A. A., Elder, R. J. and Beasley, M. S. (2006). *Auditing and assurance services: An integrated approach,* 14th Edition. England: Pearson Education Inc.

Boxall, P. (2009). *Research and Theory on High-Performance Work Systems: Progressing the High-Involvement Stream. Human Resource Management Journal,* 19(1), 3-23.

Barton,A.(2009).*The Use and Abuse of Accounting in the Public Sector Financial Management Reform Program in Australia.* A Journal of Accounting, Finance and Business Studies, 45(2), 221-248.

Bernstein, P. A. & Newcomer, E. (2009). *Principles of Transaction Processing*. London: Morgan Kaufmann.

Brannen, J. (2005). *Mixing Methods:* The Entry of Qualitative and Quantitative. Approaches into the Research Process.Int.J.SocialResearchMethodology.8 (3), 173–184.

Branch, B. (2005).*Kenyan government develops first CU Regulation with* WOCCU Support. Madison: WI.

Cantoni, L., & Danowski, J. A. (Eds.).(2015). <u>*Communication and Technology*</u>. Berlin: De Gruyter Mouton.

Conrad,M.S.(2013).*Adoption of integrated financial management information system (IFMIS)by the national government in Kenya*. Retrieved on 3rd April 2014 from http://erepository.uonbi.ac.ke

Chêne, M. (2009). *The implementation of integrated financial information management systems (IFMS), viewed 06 April*

Dener, C.&Young, S.(2013).*Financial Management Information Systems and Open Budget Data: Do Governments Report on Where the Money Goes?* Washington DC: World Bank Publications.

Dener,C.,Watkins, J. & Dorotinsky, W.L. (2011). *Financial Management Information Systems: 25Years of World Bank Experience on What Works and What Doesn't*. Washington DC: World Bank Publications.

Denscombe, M. (2007). *The Good Research Guide.* New York: Prentice Hall.

Diamond, L. (2005). *Financial services provision and prevention of financial exclusion (*2[nd]ed.).Boston: Prentice hall.

Dagbah, G. (2011). *Internal Control as A Tool for Financial Management in the Public Sector:* A case study of GES, Adaklu-Anyigbe District (Doctoral dissertation).

Diamond, J. and Khemani, K. (2006). *Introducing financial management information systems in developing countries.* International Monetary Fund.

Drazin, S., & Howard, S. (2011). *An Institutional Perspective on Performance Measurement and Management in the* 'New Public Sector'. *Management Accounting Research*, 11(3), 281-306.

Edward C. Tolman. Retrieved Dec 12 2016, from www.a2zpsychology.com Web site: http://www.a2zpsychology.com/great_psychologists/edward_c_tolman.htm

Healey, J. F. (2005). *Statistics: A Tool for Social Research.* Belmont: Thomson Wadsworth.

Hendricks, C. J. (2012). *Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa. AOSIS Open Journals*, 14 (1), 529.

Howard, P. D. (2004). *Building and Implementing a Security Certification and Accreditation Program*. BocaRaton: CRC Press. International Monetary Fund(2010).

Heide, J. A., Grønhaug, H. & Johannessen, J. R. (2010).*Strategy Implementation Problems in Jordanian Publicly Quoted* Industrial Firms, 3(2), 17-23.

Hendricks, L. (2013). Integrated Performance Measurement Systems: a development guide. *International Journal of Operations & Production Management*, 17(5), 522-534.

Isidore, M. (2012). *An assessment of how integrated financial management information system enhances financial decision making at Tanesco. Public finance Journal, 24, 89-105.*

Jin, D. &Lin, S. (2012). Advances *in Electronic Commerce, We Application and Communication*. New York: Springer Publishers.

Kothari, C.R. (2004). *Research Methodology: Methods and Techniques,2nd Ed.* New Delhi: New Age International Ltd.

KPMG (2012). *PEFA Consultancy Services for Performance Evaluation of the Public Financial Management Reforms Strategy 2006–2011*.Nairobi: Public Financial Management Reform Secretariat.

Kumar, M.(2009). *Business Information Systems*. New Delhi:Vikas Publishing House, Pvt Ltd.

Laudon, K., and Laudon, J. (2009).*Management information systems: International edition, 11/E. Pearson Higher Education.*

Lucey, T. (2005). Management information systems. London: Thomson.

Mnjama, N. (2003). *Archives and Records Management in Kenya: Problems and Prospects. Records Management Journal,* 13(2), 91-101

Mackay, K. R. (2007). *How to Build M and E Systems to Support Better Government*. Washington DC: World Bank Publications.

Mathews, T.D. & Kostelis, K.T. (2011).*Designing and conducting research in health and*

human performance, New York: John Wiley & Sons.

Maier, M. W., & Eberhardt (2000). The Art of System Architecting (Second ed.). Boca Raton: *CRC Press.*

McKinney, J. B. (2004). *Effective Financial Management in Public and Nonprofit Agencies*. Portsmouth: Greenwood Publishing Group.

Ministry of Finance (2013). *What is IFMIS?* Retrieved on 31st March 2014 from www.treasury.go.ke/index.php/.../554-ifmis-re-engineering

Modina, S. & Zanolli,R.(2008).*Rationalizing administrative processes interm sofefficacy, efficiency and cost effectiveness*. Milano: GiuffrèEditore.

Moeti, K., Khalo, T. & Mafunisa, J. (2007).*Public Finance Fundamentals*. Claremont: Juta and Company Ltd.

Mugenda, O. M. & Mugenda, A. B. (2003).*Research Methods: Qualitative and Quantitative Approaches.* Nairobi: ACTS Press.

Mullen, H.,& Horner, D.S.(2004).*Ethical Problems fore-Government: An Evaluative Frame work. Electronic Journal of e-Government,*2(3), 187-196.

National Treasury(2013),. *IFMIS Re-Engineering Strategic Plan (2013-2018)*. Nairobi: Republic of Kenya.

Oz, E. (2006). *Management Information Systems*. New York: engage Learning.

Picci,L.(2005).*The quantitative evaluation of the economic impact of e-government: A structural modeling approach*. Retrieved on 3rd April 2014, from Information Economics and Policy xxx(2005) xxx–xxx: http://www.elsevier.com/locate/iep

Polit, D.F. &Beck, C.T.(2001). *Study guide to accompany essentials of nursing research: methods, appraisals, and utilization*, New York:Lippincott.

Pollitt, C.(2008). *Integrated financial management and performance management. OECD Journal on Budgeting,*1(1), 1-37.

Rodin-Brown, E. (2008).*Integrated Financial Management Information Systems: a Practical Guide* edited by Steve Rozer and Marck Gallagher. United States Agency for International Development. Development Alternatives, Inc. Under the Fiscal Reform and Economic Governance Task Order, GEG-I-00-04-00001-00

Rupanagunta, K.(2006).E-Governance in Public Finance Management: An Overview. *IIMB Management Review,*1(2), 403-413.

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*.(5th ed.)Harlow: FT/PrenticeHall.

Sekaran, U. (2003). *Research methods for business: a skill-building approach.* New York: John Wiley & Sons.

Simson, R., Saharma, N. & Aziz, I. (2011). *A guide to public financial management literature for practitioners in developing countries.* London: Overseas Development Institute.

Taylor, G. R. (2005). *Integrating quantitative and qualitative methods in research,* Lanharm: University Press of America.

Thurakam, R. M. E. (2007). Management *Accounting*. New Delhi: New Age International.

Vander Hoek, M.P. (2005). From Cash to Accrual Budgeting and Accounting in the Public Sector: The Dutch Experience. *Public Budgeting & Finance*, 1(1), 32-45.

Walker,D. M. (2008). *Financial Management: Federal Financial Management Improvement Act Results for Fiscal Year 1999: Report to Congress*. Colingdale, PA: Diane Publishing.

Wamuyu, K. A. (2013). The effect of integrated financial management information system on public financial management and service delivery of government ministries in Kenya. *Unpublished Thesis*.

Wescott, C., Bowornwathana, B. & Jones, L. R. (2009). *The Many Faces of Public Management Reform in the Asia-Pacific Region*. Bradford: Emerald Group Publishing.

William Gosling (1962). *The design of engineering systems. New York: Wiley.*

World Bank (2011). *Financial Management Information Systems: 25Years of World Bank Experience on what Works and what Doesn't*. Washington DC: World Bank.