



DETERMINANTS OF PERFORMANCE OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IN PUBLIC SECTOR IN KENYA: A CASE OF NATIONAL TREASURY

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ABSTRACT

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. 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 general objective of this study was to examine the determinants of performance of Integrated Financial Management Information System in public sector in Kenya with a case of National treasury. The study was built upon the Resource based view theory, E –Technology Perspective Theory, Last planner Theory and Weick’s model Theory of Organizing. The specific objectives of this study were to examine; ICT infrastructure; human resource capacity; implementation strategy and government policy influence effective implementation of Integrated Financial Management Information System in public sector. The study adopted descriptive survey for the target population of 800 government officers at National treasury. A sample size of 80 respondents and a stratified sampling technique was used and data collected through the use of questionnaires as a research instrument. On the other hand, secondary data was obtained from published documents such as journals, periodicals, magazines and reports to supplement the primary data. A pilot study was conducted to pretest the validity and reliability of instruments for data collection. The quantitative method of data analysis was employed to analyze data with help of SPSS version 21 and Excel. The study adopted correlation and regression analysis at 5% level of significance to determine strength and direction of the relationship of the variables under study. The analysis showed that ICT Infrastructure had the strongest positive (Pearson correlation coefficient =.801; p-value= .012< .05) influence on Performance of IFMIS in the organization. In addition, human resource capacity, implementation strategy and government policy are positively correlated to Performance of IFMIS in the organization (Pearson correlation coefficient =.777, .783 and .663; p- value= .031<.05; .036<.05; .045< .05) respectively. The study recommends for adequate technical staff in planning and implementation, proper leadership for the project team, enough computers and software for the staff and proper systems approach of planning, scheduling of IFMIS. Additionally, study recommends for similar studies to be undertaken in other ministries for generalization of the findings of this study.

Key Words: Performance, Integrated Financial Management Information Systems

INTRODUCTION

This chapter aims at providing sufficient information for better understanding of the study. It examines the global context and then narrows down to the issues that the study will address. The chapter provides the background information, statement of the problem, research objectives and research questions that underpin the study, significance, scope and limitations of the study.

Background of the Study

According to both Dorotinsky (2003) and Rozner (2008), an IFMIS is an information system that tracks financial events and summarises financial information. It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed (Rodin-Brown 2008). In general terms, it refers to the automating of financial operations. In the sphere of government operations, IFMIS refers to the computerisation 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 (Arnety & Wepukhulu, 2013).

Zakaria & Elsayed (2011) identifies the following basic features that are necessary for integration: standard data classification for recording financial events, internal controls over data entry, transaction processing and reporting, common processes for similar transactions and a

system design that eliminates unnecessary duplication of data entry.

Integrated Financial Management Systems (IFMIS) plays a key role in administration of business in organization today. Various studies have been conducted on the Integrated Financial Management Systems (IFMIS) and ICT project management to ensure that organizations are being conducted accordingly and services are delivered respectively in line with the progress of information technology. The developments of IFMIS projects have increased in many organizations to ensure that overall needs of customers in business requirements are fulfilled. However, many IFMIS in ICT projects failed to take off such as a series studies (Odolo & Gekara, 2010; Ashraf, Sarfraz & Mohsin, 2010; Dener, Watkins, & Dorotinsky, 2011). ; Liu, Wu & Meng, 2012; Kamara, 2011).) produced. Kamara (2011) states that due to the ICT project failure and its impact to the organization, researchers and practitioners are asked to specifically look at the history of how the IFMIS project is carried out to find an effective approach and comprehensive to overcome this issue. Despite of having a lot of benefits in financial reforms in the public sector, IFMIS have yet to show a good track record of success (Waema & Adera, 2011; Standish Group Report, 2009).

The introduction of Integrated Financial Management Systems (IFMIS) has become a core component of financial reforms to promote efficiency, security of data management and comprehensive financial reporting (Peterson, 2006). According to Hove *et al* (2010) IFMIS provide an integrated computerized financial package to enhance the effectiveness and transparency of public resource management by computerizing the

budget management and accounting system for a government. It consists of several core sub-systems which plan, process and report on the use of public resources. The scope and functionality of IFMIS can vary across countries, but sub-systems normally include accounting, budgeting, cash management, debt management and related core treasury systems. In addition to these core sub-systems, some countries have chosen to expand their IFMIS with noncore sub-systems such as tax administration, procurement management, asset management, human resource and pay roll systems, pension and social security systems and other possible areas seen as supporting the core modules.

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

One of the major benefits of an IFMIS is the impact that it can have on corruption, by increasing the risk of detection. According to Chêne (2009), a well-designed IFMIS can provide a number of features that may help detect excessive payments, fraud and theft. These include, for example, automated identification of exceptions to normal operations, patterns of suspicious activities, automated cross-referencing of personal identification numbers for fraud, cross-referencing of asset inventories with equipment purchase to detect theft,

automated cash disbursement rules and identification of ghost workers. At the launch of the Human Resource (HR) module of the IFMIS in South Africa, the Minister of Public Service and Administration stated (Baloyi 2011): The implementation of the module is critical for supporting good governance. Corruption remains the biggest single threat to good governance in South Africa and in the public service and fighting it remains a major challenge. Through implementing the HR module, government departments will be in a better position to eliminate ghost workers and the abuse of leave. The module will enable management to manage the disciplinary process in the Public Service better and will also automate the declarations of financial interests by senior managers.

Global Perspective on the IFMS Implementation

Several countries, such as New Zealand, Australia, the UK, undertook significant public sector changes to break from the traditional bureaucratic model of public administration (Sigei, 2013) that involved the breaking of the larger units into smaller manageable otherwise equated to devolved units in Kenya today. Governments have started to: constrain public spending, sell off public assets, and outsource many services that were previously provided exclusively by the public sector to private companies, develop public asset performance measurement, output and outcome-based budgeting and business-type accounting (Wayne, 2008 ; Atanda & Jaiyeoba, 2010)

In the recent past, the developing nations have also adopted public sector reform practices and are seen to be motivated by; first, governments

were embarking on new terrain, and so naturally looked to learn from other governments' experiences. In May 2005, the Government decided to adopt and implement an EPICOR based IFMIS following the study tour to Tanzania that took place in the year 2005, March. The month of June the same year saw a Memorandum of Understanding being signed between the Government of Malawi and the Government United Republic of Tanzania to enable the Government of Malawi benefit more from exchange visits. In July 2005, the Government of Malawi signed a Contract with Soft -Tec Consultants to supply and assist in the implementation of IFMIS in Malawi (Republic of Kenya, 2012c)

Growth in global IFMS spending over the past three decades has been considerable. Avram outlined in 2001 that global IFMS expenditure was growing at a rate faster than worldwide GDP. In 2005, Gwillim, Dovey and Wieder (2005) suggested that global IFMS spending exceeds \$1 trillion per annum. According to Agarwal and Lucas (2005), ICT is one of the most important business driving forces of the 21st century. The reasons for this considerable growth can be linked to the increased realization of IFMS through the ICT's importance in achieving competitive advantage. The significant increase in ICT's scale, complexity, strategic focus, connectivity and processing power in recent years has further heightened awareness of ICT's potential to positively affect an organization's competitive position (Vehovar, & Lesjak, 2007).

Information and Communication Technology (ICT) is a multi-trillion dollar industry. It offers potential for significant organizational improvement and competitive advantage. However, IFMS investment does not always

translate into monetary rewards. According to Powell (2010), IFMS investment in organizations has grown considerably throughout the past three decades. By 1998, in the developed world, IFMS accounted for more than 50% of organizations annual capital investments and was expected to account for 5% of revenues by 2010 (Powell, 2010). The main driving force behind this large-scale IFMS investment is the promise of increased competitive advantage (Hu & Plant, 2001; Afande, 2015), as IFMS is regarded as a strategic weapon that can positively affect organizational change (Gregor *et al*, 2006).

Countries have been classified by the United Nations according to their Computer Industry Development Potential (CIPD) as advanced or less developed (Asgarkhani, 2005). Advanced include, for example, the United States, Canada, West European countries and Japan; According to the World bank (2011) FMIS Database Latin America and Caribbean region of the World Bank stands out with the largest number of completed (25) and active (4) IFMIS projects. The Africa region follows with 13 completed and 12 active IFMIS projects. For all countries, use of ICTs for government reinvention is increasing not only in investment but also in terms of visibility with a number of high-profile initiatives having been launched during the 1990s. According to Gichoya(2005) this reinvention has taken place especially in the advanced countries. Western countries are convinced that the information society will result in economic and social benefits (Kimwele, 2011). The author quoting Organization for Economic Cooperation and Development, notes that information infrastructures are expected to stimulate economic growth, increase productivity, create jobs, and improve on the quality of life.

Heeks & Stanforth (2007). observes that there is a big difference between IFMS implementation and use between developed and developing countries. However, Ongaki (2013) observes that similarities can also be expected. These similarities include funds which are never sufficient, bureaucracy and user needs. The difference is how problems are addressed in different countries. It can be argued that, with their adequate resources and advanced technology, the Western countries have an easier way of implementing IFMS projects than DCs. Most developing countries are characterized by limited computer applications in the public sector, inadequate infrastructure and shortage of skilled manpower (Mutisya, 2014).). notes that this situation exists not merely due to lack of financial resources, but largely due to lack of coordination at different levels in making effective use of the technology. This uncoordinated efforts can only result in duplication if each department implements its own IFMS projects without due regard to compatibility within the government.

In Africa, Governments are increasingly exploring methods and systems to modernize and improve public financial management. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (IFMIS) as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting. The scope and functionality of an IFMIS varies across countries, but normally it represents an enormous, complex, strategic reform process (Chêne 2009).

Kenyan Perceptive on implementation of IFMIS

The Kenya Government has implemented the Integrated Financial Management Information System (IFMIS) since the year 2005 as its sole accounting system. It was adopted as a result of the numerous benefits envisaged from its effective use. The Public Financial Reform Management (PFMR) Strategy Paper 2001-2006 recommended automation as well as integration of key government functions such as human resources payroll, accounting, procurement and budgeting citing transparency, better financial management and reporting as some of the benefits (GoK, 2001).

The Strategic Plan for GoK IFMIS (2011- 2015) outlines the development of the Integrated Financial Management System (IFMIS). At present the system is being re-engineering with the aim of improving systems for management and reporting of financial data and information for the Government of Kenya. The IFMIS implementation requirement in Kenya originated from the Ministry of Finance and Economic Planning ICT Master Plan 2001- 2005 that highlighted gaps and weaknesses within the SIBET system that was in use (Kwena, 2013). The master plan proposed development of different modules comprising: accounting, revenue management, asset management among others and establishment of interfaces with the National Bank Payment Information System, Kenya Revenue Authority (KRA) and the Ministry of Labour for payroll and human resource management modules. In collaboration with the Government of Kenya and Kenyan researchers and organizations, the IDRC team is identifying the social, technological and institutional structures required for successful ICT policy implementation helping develop effective implementation strategies and detailed plans raising IFMIS awareness through

workshops and training for senior Government officials developing indicators for measuring the progress and impact of the policy's implementation and documenting the lessons learned from Kenya's policy process to help other African countries grappling with similar challenges (Kanyungi, 2014).

Statement of the Problem

In Kenya the National Treasury introduced the Integrated Financial Management Information system as a PFM reform initiative aimed at automating and streamlining Governments financial management processes and procedures (Njenga, 2013). The continued efforts of proper management of public funds have led to the need for the introduction of an IFMIS system in the county governments in the country (World Bank, 2014). Initially, the implementation was done correctly in some institutions for example in the Central bank but this has not been met with resounding success in the ministries and has not attained most of the intended objectives. The implementation of such a project has proved to be a very demanding undertaking and has not been met with resounding success (Karanja & Nganga, 2014). The Kenyan Government is involved in several projects and there are usually large amounts of funds involved in the projects. To ensure proper management of funds, efficiency and the effectiveness in the implementation of the projects is key because of the continued increase in demand for accountability. (IFMIS Report March 2013).

World Bank (2014) argues that most reforms fail not only because of the contents or technical aspects of the reform programmes, but because of the human resource capacity and way they were implemented (strategy). The ICT infrastructure for IFMIS varies across countries,

but normally it represents an enormous, complex, strategic reform process to enhance performance of IFMIS (Chêne 2009). The lack of clear government policy for training of staff members also pose a challenge to how effective the systems will be in the management of funds. Politicians are at the heart of management of project funds and are known to benefit largely through lack of accountability and the existence of bureaucratic systems and any PFM intends to introduce internal controls. The internal controls eliminate loop holes for misuse of the project funds and usually explain lack of political commitment in the implementation of IFMIS.

From the foregoing lack of ICT infrastructure, government policy, lack competent personnel can have a negative effect on the performance of a Management Information System and should not be underestimated because they lead to the slow utilization of the system and in some cases failure(Njonzi & Kimande, 2014). The problem is centered on the determinants leading to inefficiencies which are still experienced in the performance of the IFMIS in Kenya (Fedha, 2014). It is in this spirit that the research intends to establish the determinants of performance of Integrated Financial Management Information System in public sector in Kenya with a case of National Treasury.

Objectives of the Study

General Objective of the Study

The study sought to establish determinants of performance of Integrated Financial Management Information System in public sector in Kenya.

Specific Objectives of the study

The specific objectives of the study were to;

- I. Determine the influence of human resource capacity on performance of Integrated Financial Management Information System in public sector in Kenya.
- II. Examine the influence of ICT infrastructure on performance of Integrated Financial Management Information System in public sector in Kenya.
- III. Explore the influence of implementation strategy on performance of Integrated Financial Management Information System in public sector in Kenya.
- IV. Establish the influence of government policy on performance of Integrated Financial Management Information System in public sector in Kenya.

Research Questions

The study was guided by the following research questions;

- I. Does human resource capacity influence effective implementation of IFMS in public sector in Kenya?
- II. How does information communication technology infrastructure influence effective implementation of IFMS implementation in public sector in Kenya?
- III. What is the influence of implementation strategy on effective implementation of IFMS in public sector in Kenya?
- IV. How does government policy influence effective implementation of IFMS in public sector in Kenya?

Significance of the Study

The study is of value to Policy/decision makers because it aims to give recommendations on some best practices that can be adapted for effective implementation of IFMIS. It also offers a chance for strategic policy considerations

related to the influence/power of ICT in Kenya. This study also gives insights to the government institutions on how they can form a foundation for enhancing effective implementation of IFMIS. It would act as a guide to the government on how they can offer or mitigate policies that affect business re-engineering for effective implementation of IFMIS.

It is hoped that the findings of the study would make valuable additions to the existing literature and stimulate further interest in ICT based initiatives. The study is a source of reference material for future scholars or academicians on other related topics; it can also help others who will undertake the same topic in their studies. The results of this study can be used by academics to discuss the determinants of performance of IFMIS in Kenya. The study also highlights other important relationships that require further study.

Scope of the Study

The Kenya Government through the Public Financial Reform Management (PFMR) Strategy Paper 2001-2006 recommended automation as well as integration of key government functions such as human resources payroll, accounting, procurement and budgeting citing transparency, better financial management and reporting as some of the benefits (GoK, 2001). The study will be conducted in National Treasury public officers in the various departments of who are Procurement Officers, Record officers, ICT, Finance and Accounts and Human Resource managers at the headquarters. For this study, the study population will be 80 public officers working at the National Treasury headquarters (Gok,2014).The study will also limit itself to variables under study which include; human resource capacity, ICT infrastructure, implementation strategy and government ICT

policy and effective implementation of Integrated Financial Management Information System implementation in public sector in Kenya.

Limitations of the Study

The limitations are some targeted respondents were reluctant to share sensitive information while others misinterpret the intentions behind the research and refuse to provide accurate information for fear of disclosure besides assurances of confidentiality. However, by discussing the relevance of the study to the respondents it will help to provide the required information. The researcher will present an introduction letter to be obtained from the university to the project management and this may help to avoid suspicion and enable the project management to disclose much of the information sought by the study.

The issue of unreturned questionnaires and uncooperative respondents may prove difficult for the researcher. The respondents will be assured that the research is only for academic writing, and would not jeopardize their positions in any way. Follow ups will also be made to facilitate the response rate. The organizations confidentiality policy may restrict most of the respondents from answering some of the questionnaires since it is considered to be against the government confidentiality policy to expose the government confidential matters. The suspicion normally associated with any kind of a research study. This may be solved by assuring the respondent of utmost confidentiality and disclosing the academic purpose and intention of the study

LITERATURE REVIEW

Introduction

This chapter reviews the existing literature, information and publication on the topic related to the research problem by accredited scholars and researchers. This section examines what various scholars and authors have said about establishing determinants of performance of Integrated Financial Management Information System implementation, in particular it covers the theoretical review of literature, conceptualization of research problem, empirical review of the literature, critique of existing literature and the research gaps

Theoretical Review

This section reviews theories related to the study. A formal theory is syntactic in nature and is only meaningful when given a semantic component by applying it to some content such as facts and relationships of the actual historical world as it is unfolding (Fellows, 2009). According to Brown-Jeffy & Cooper (2011), defines a theory as a set of interrelated concepts which can be used in the study, definitions, prepositions that have been put forth to explain or predict a scenario under study. The theories for this study will include; Resource based view theory, E -Technology Perspective Theory, Last planner Theory and Weick's model Theory of Organizing.

Resource based View Theory

Resource based Theory argues that's 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 (Berricci, 2013). The supporters of these arguments argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it (Vogel & Guttel, 2013). The goal of an

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

The source of an organization's competitive advantage lies mainly in how it exploits its distinctive internal resources and competencies, by setting strategic objectives based on what they enable it do (Gariga & Mele, 2013). The resource-based approach starts with the organization's strengths and seeks an environment that will enable it exploit them by changing environments to suit what it does best rather than changing what it does best to fit the environment (Kehoe & Wright, 2013). One of the key insights of the resource-based view is that not all organizational resources are a potential source of competitive advantage (Hitt, 2011). The above theory relates to human resource capacity on performance of Integrated Financial Management Information System implementation.

The E -Technology Perspective Theory

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

collaboration allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Saurin &Henringson, 2013).This facilitates the so-called frictionless procurement paradigm (Brousseau, 2000). The internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries (Hsand *et al*, 2013). Despite the fact that business-to-business (B2B) trade has enjoyed a quieter existence online than business-to-consumer (B2C) (Janita & Miranda, 2013) the benefits of IFMIS in a public setting are significant (Holland & Kaplan, 2013). Indeed it has been claimed that ICT has become the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that allows buyers and suppliers to work to optimum and mutually beneficial prices and schedules (Foss & Kruesden, 2013).

Usually organizations or governments adopt IFMIS systems to manage the purchase of low critical products and services (Lisci *et al.*, 2013). In summation it is noted that the extent of e-IFMIS adoption remains in a formative stage, falling short of the type of e-sourcing and e-collaboration suggested by (Foss & Kruesden, 2013). Common IFMIS and e-procurement tools are online catalogues and direct auctions, where reverse auctions remain unpopular with sellers (Janita & Miranda, 2013). IFMIS implementation is characterized by the direct and indirect public sector divide, where firms tend to use online systems for uncritical items (Gariga & Mele, 2013). The transition to IFMIS calls for strategic adaptation and well laid infrastructure. It is one strategy, though, that requires much organizational change (Janita & Miranda, 2013).

The above theory relates to the Information Communication Technology infrastructure on performance of Integrated Financial Management Information System.

Last Planner Theory

A theory, often called Last Planner, for project management and implementation, has been developed by Ballard (Korinek & Mendoza, 2013). At first sight, Last Planner deviates from the conventional project management doctrine in terms of planning, execution and control. The term Last Planner refers to the hierarchical chain of planners, where the last planner acts at the interface to execution. Thus, this method concentrates on the detailed planning just before execution, rather than the whole planning process. In look ahead planning, the prerequisites of upcoming assignments are actively made ready, in other words, they are transferred to the Can category this, in fact, is a pull system (Chettiparamp, 2013) that is instrumental in ensuring that all the prerequisites are available for the assignments (Anca, 2013). Kerzner (2013) states in a study on Project management: a systems approach to planning, scheduling, and controlling finds out that Project management goes beyond managing the technical aspects of implementation. In conventional project management, the plan pushes tasks to execution; only the Should category is recognized..

Theoretically interpreting, the execution phase in Last Planner is similar to the language/action perspective model in that communication is a two-way process, and commitment is created for the realization of the tasks within the planning conversation where plans prepared by one crew are understood as promises to others and through

the obligation to report on the completion of the task. Control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes (Cope & James, 2013).

Here a metrics called Percent Plan Complete (PPC) is used. In conventional project management, main control consists of comparing progress with the performance baseline, expressed in money or hours. Theoretically interpreting, Last Planner is using the scientific experimentation model of control. The above theory relates to the influence of implementation strategy on performance of Integrated Financial Management Information System implementation in public sector.

Weick's Model Theory of Organizing

One of the sophisticated theories of organizational structure is Weick's model theory of organizing. It takes into account the high-stressed, fast-paced nature of today's business and reduces equivocality (Czarniawska, 2014). Equivocality boils down to any lack of productivity due to an employee, on any level, having to check with superiors which is brought about by bureaucracy and unaligned organizational structure which greatly affect the management style of the organization (Lecose, 2013). In the Weick's model, there is an information system, which includes frequently and sometimes previously tackled issues (Langley, Smallman, Tsoukas & Van de Ven, 2013). Employees have access to this information and use it to combat any ambivalence or inertia that might hinder making business decisions (Feldmann, 2013). The decisiveness gained by using the information system leads to higher productivity due to ease with which structures and policies can be modified to suit the prevailing or anticipated

needs. The Wieck model theory of organizing relates to the government policy on performance Integrated Financial Management Information System.

Conceptual Framework

Conceptual framework as a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study (Mugenda, 2008). According to Gallarza & Saura (2013) defined a conceptual framework as a virtual or written product, one that explains, either graphically or in narrative form, the main things to be studied- the key factors, concepts, or variables and the presumed relationships among them. Conceptual frameworks, according to educational researcher Yadav (2010) are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aim (Van Kamp & De Hollander, 2003).

A conceptual framework is a diagrammatical research tool intended to assist the researcher to develop awareness and understanding of the situation under scrutiny and to communicate this (Matten & Moon, 2008). A conceptual framework is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. It can be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. The interconnection of these blocks completes the framework for certain expected outcomes.

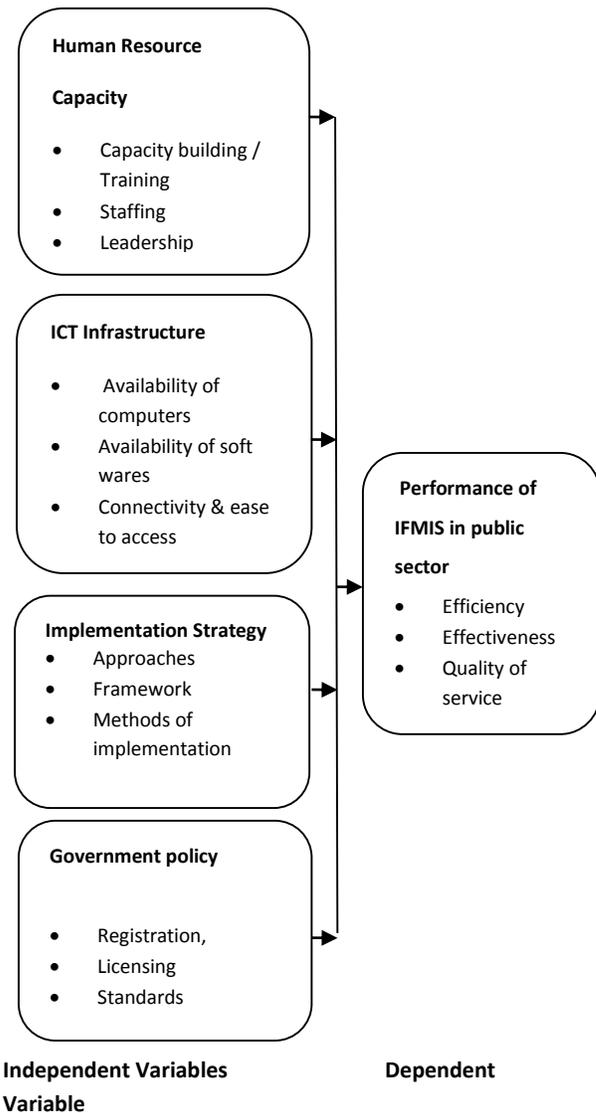


Figure 2.1: Conceptual framework

Human Resource Capacity

The effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. Lack of capacity is regarded as one of the main causes for the delay in the implementation process experienced by Ghana, whilst the emphasis that was put on capacity building through training in Tanzania was one of the main contributors to their success. (Selfano & Serah, 2014).

The lack of staff with IT knowledge and experience cannot be easily remedied by training and hiring. The salary structure and terms of employment in the public sector are

usually not attractive enough to compete with the private sector and to incentivise candidates with the required IT-skills levels (Chêne 2009). Trained personnel also leave the government service, often for better job opportunities. Sigei (2013) 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 an IFMIS in developing countries. This aspect is especially relevant in 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. Hove & Wynne(2010) contend that the human resource 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 government.

ICT Infrastructure

According to Wafula & Wanjohi(2009) around the world, governments are undertaking ambitious reforms to further revitalize or transform their public sectors. The drivers for reform include: on the demand side – the increasing expectations by citizens for efficient and effective services and for a voice in their design and delivery, and on the supply side – the increasing pressures on government budgets, more severe since the global financial crisis, requiring that they do more with considerably less.

To accomplish this revitalization, governments are introducing innovations in their organizational structures and practices, and in the ways in which they mobilize, deploy and utilize human, financial and ICT resources

(United Nations 2011). The use of ICT in the public sector, or e-government as it is known, is playing a critical role in governments' efforts to revitalize their public sectors. Modern ICT is a significant strategic tool for lifting public sector performance, offering benefits of greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organizational boundaries and levels of government, and greater transparency and accountability in government functions (Ameen & Ahmed, 2011). Consequently, over the past 10 to 15 years, governments around the world have utilized information and communication technologies, particularly digital technology (OECD 2009) which has significantly changed the ways in which. A second key issue that has emerged is achieving greater citizen engagement in public policy processes through the latest Web 2.0 tools. E-government is no longer viewed only as the provision of information or services via the internet but as a way of transforming how citizens interact with government and how government interacts with itself (Rose and Grant 2009). The new social media tools have the potential to transform public policy processes by making government far more responsive and participatory. Web 2.0 offers unprecedented opportunities to open government decision making to the community allowing citizens to engage more directly and collaboratively with public servants (Dzidonu, 2011).

Many IFMIS projects have failed because the basic system functionality was not clearly specified from the onset of the intervention. Chêne (2009) posits that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the

system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf (OTS) or custom-built systems that fit the requirements of the specific country. An analysis of the different systems used by developing countries indicates that they make use of both off-the shelf systems as well as custom-built systems. For example, Ghana and Uganda opted for a system designed and developed to fit their specific requirements, whilst Tanzania, Malawi and Kenya opted for off-the shelf systems. It is important to note that a determining factor in the success of the implementation is not in the type of system, (i.e. off-the-shelf or custom-built) but rather in the complexity of the system. One of the reasons for the success of Tanzania's project is, for example, their decision to purchase a less complex, mid-range commercial package (Dzidonu, 2011).

Government policy

It is important to have clear legal guidance on the roles and responsibilities of all institutions involved in the implementation of an IFMIS. According to Dzidonu(2011)a legislative framework consists of the constitution, finance act and regulations, and needs to include: the roles and responsibilities, of the treasury, and other departments responsible for the control and management of public finance, the main form of government funds, receipt and custody of public funds, the annual process, submission and approval of estimates and the procedures for release of funds, the basis of accounting and the form of annual accounts for audit and presentation to Parliament and asset management and control, borrowing and investment.

Legal reforms, however, are seldom simple or swift, but this process need not obstruct IFMIS

implementation (Ochara, 2010). In Kenya, the legislative framework for implementation of an IFMIS is enshrined in the act for extensive powers on the national government to determine the financial management framework over all organs of state, in all spheres of government. The National Government must, through national legislation, establish a national treasury and prescribe measures to ensure transparency and expenditure control in each sphere of government by introducing generally recognised accounting practices, uniform expenditure classifications, and uniform treasury norms and standards.It intends to to modernise the system of financial management in the public sector, to enable public sector managers to manage, but at the same time be held more accountable,to ensure the timely provision of quality information and to eliminate waste and corruption in the use of public assets.The Act is part of a broader strategy on improving financial management in the public sector through various reform projects and strategies, such as budget and procurement reforms introduced by the Kenyan government(Wafula & Wanjohi, 2015).

A government is a huge and complex organization, whose operations and strategic focus could be greatly enhanced by the well-focused application of Information and Communication Technologies (ICT) to support improvements in productivity, management effectiveness and ultimately, the quality of services offered to citizens (Oyugi, 2008). Government Information aims to improve the Government's return on investment in ICT by enhancing strategic planning, agency capability, management and evaluation of ICT-enabled projects. Governments assist agencies to better align their ICT investment with their business and policy objectives and whole-of-government

strategies. While the benefits of ICT in government cannot be disputed, there are several concerns about its success as well as the strategies to be adopted in implementation of systems in various countries (Aineruhanga, 2004)

Common ICT policies include creating a regulator and licensing scheme, investment or assistance in the construction of infrastructure, introducing ICT programs into schools and creating initiatives to promote universal access to these new technologies (Amayi & Ngugi, 2013). Through policy, governments have the opportunity and the power to significantly alter how an ICT industry develops, and how successful it is. Good policy can overcome inequalities in development, build better infrastructure, and shape how companies approach their market and build their customer base. While many governments in the developing world struggle with the implementation and enforcement of policies and do not focus much attention on their ICT industry, there is significant potential in using policy to improve ICT industries (KIC, 2006).

Business process re-engineering is a critical aspect of any IFMIS reform and requires a review of all systems, functional processes, methods, rules and regulations, legislation, banking arrangements and related processes (Kinoti, 2013). It will be necessary to establish new, standardised procedures throughout the government to formalise job descriptions and to improve arrangements and systems for internal and external control (Orina, 2013)

Implementation strategy

Kerzner (2013) states in a study on Project management: a systems approach to planning, scheduling, and controlling funds that goes beyond managing the technical aspects of implementation. An adequate project

implementation team should be set up, ideally comprising a project manager, a public finance economist, a qualified accountant, a change management/training expert, IT-system experts and logistic experts. It is recommended to set up a steering committee to oversee the process at the highest level, chaired by a high-level figure, such as the Minister of Finance, that meets regularly and produces minutes on issues and milestones (Indeje & Zheng, 2013).

In his book Bhatnagar (2004), E-government: From vision to implementation-A practical guide with case studies Sequencing the Implementation Process: There are high risks involved in implementing too many components of the reform at once and practitioners believe that risks can be mitigated with a phased approach that rolls out across government institutions in a gradual and flexible process (Ochara, 2010). Large IT-projects require substantial investments in equipment, training and infrastructure, and involve high risks of delays and failure, because of interdependency of the various project components. It is recommended to favor a pragmatic step-by-step approach to reform, based on a detailed assessment of existing conditions and needs. The process should therefore start by a comprehensive assessment of the current institutional conditions (what is needed and can be reasonably achieved?), including an analysis of the current governance system, ICT-infrastructure, incentives structure, legal framework in place, and human resources available. The analysis should also cover the training needs and potential implementation challenges. The system should only be rolled out once it has been pre-tested with real data, to assess the way the chart of accounts, the software and integration processes, recording of real transaction and

producing report work in practice. The roll-out strategies should ensure that: reform is built around clear benchmarks and milestones; reform is divided into self-contained modules and IFMIS implementation is broken down into definite steps (Odala & Gekara, 2015).

Strategic planning is a process that results in decisions and actions to guide what your program is, what it does, and why it does it (Njonde & Kimanzi, 2014). Strategic planning is a practical process to help you adapt products, services, and activities to the needs of the population your program serves. Well-defined strategic goals and strategic objectives provide a basis from which to develop suitable programmes and projects, as well as appropriate indicators. A strategic goal is a general summary of the desired state that an intervention is working to achieve (National Treasury, 2007).

The form of approach taken in implementation of can either be traditional where donors decide how it was done or participatory where a stakeholder was involved. The framework used can either be theory based evaluation or a logical framework which will guide on how the plan was realised (Ongaki, 2013) Methods of data collection can entail use of quantitative techniques such as questionnaires and registers or qualitative techniques such as use of focus group discussions. The benefits of strategic planning include improved program performance, use of resources, and understanding of program context, decision making, stakeholder communication, and political support for your program (Mbithi & Kiruja, 2015).

Empirical literature

O'Fallon & Butterfield, (2005) noted that empirical review is the authors review of information and theories currently available concerning the topic under study in order to demonstrate the author's through understanding of the topic which he/she is conducting research. Further, it shows that the problem being studied had not been done before in the way proposed by the researcher

According to Lund (2006) in a study investigating the importance of human capital on the firms' absorptive capacity using an estimation of an ordered probit model including 1544 firms from the manufacturing and service industry in Denmark showed that the share of highly educated employees, application of human resource management practices within the firm, and development of a closer relationship with both vertically related actors and knowledge institutions, is not only positively correlated with the ability to innovate but also negatively correlated with the degree of innovative imitation. Finally, work experience among managers, heads of departments, and employees at the managerial level is negatively associated with the ability to innovate for science-based and ICT intensive firms, thus indicating the importance of updating the skills of the employees in these high-tech sectors. According to Arthur (1994) on a study on the impact of strategic human resource management on organizational success case study of the public sector and multiple goals. He found out that the performance of organizations is the focus of intensive research efforts. How well an organization performs its mission and accomplishes its goals of program service delivery is of paramount concern.

According to Sanwal (2007) in a study on a study of modern, knowledge based organizations he

states that ideal settings for the application of strategic human resources management practices. Inasmuch as their competitive advantage is attributable to their people techniques which focus on people should prove to be directly linked to measures of organizational success. Civil service systems are designed to integrate the multiple values pursued by the public sector. While these rules can inhibit the adoption of progressive personnel practices, they are not the necessarily rigid barriers to change.

The public sector has been the venue of many experiments and innovations in recent years. Social service agencies (such as those in studied here in (North Carolina) are indeed knowledge-based organizations. According to Theodore Lowi's (1972) policy typology, social services represent an effort at redistribution. While the agencies possess a professional, social science knowledge base, their redistributive objective remains controversial. In addition, the beneficiaries of this redistributive transfer from the haves to the have-nots are a politically marginalized segment of society (Mosher, 1968; Meier, 1987). Capacity building is a major factor affecting the success of IFMIS implementation, especially in developing countries (Chêne 2009). An IFMIS comprises more than only implementing a project; it also means planning for capacity building. A comprehensive training programme is therefore vital for the success of the project and should be compiled as early as possible. Training is essential to unlocking client readiness and is the best way to ensure sustainability of a system (Vickland & Nieuwenhuijs, 2005).

According to Maake (2007), the challenges that South Africa faces include access to appropriate IT skills as well as appropriate

functional skills by user departments. South Africa faces significant human capital development challenges in building the capacity required by an IFMIS. The shortage of skilled ICT people in the country is exacerbated by the emigration of highly skilled ICT personnel and other professionals to developed countries, and from the public to the private sector (Farelo & Morris, 2006).

The adoption and effective use of information and communication technologies (ICT) has the potential to yield significant benefits in the least developed countries (LDCs), which are recognized as the most vulnerable in the international community (Gregor, 2010). The aim of this study was to investigate strategies to advance the use of ICT in the public sector in LDCs, with the aim of improving services and outcomes for government and citizens. A multi-level framework for analysis was developed, consistent with a structuration-type theoretical approach. A meta-analysis of data gathered in a UN study of e-government readiness was performed, focusing on the developing countries that have greatly improved their relative positions recently. In general, the findings support the multi-level approach.

Imran (2007) puts forward that at the national level, a low level of economic development, poor infrastructure and political unrest are inhibitors of public sector ICT progress. At a base level, access by individuals and organizations to ICT tools and IT-related education is necessary for e-government to be feasible. Some strategies were observed to be linked to progress with e-government across a number of developing countries: leadership and willingness to initiate change within the government sector, an incremental, step-by-step approach to development, and some sensitivity to local and cultural need

Chapman (2004) in a study titled: system failure: Why governments must learn to think differently recommended to start small at a realistic level and progressively expand the programme through the various layers of government. The first step consists of identifying an experimental entry level system limited to a pilot site, such as the Ministry of Finance, and to gradually consolidate and expand it to other institutions and levels of government. The system can then be successfully rolled out in phases once it has been tested and proven in this initial controlled environment. Change management and training of end users are important components of the roll-out strategy.

Wilson (2007) found that government regulation and policies can help ensure may be insufficient to achieve desired policy outcomes for example, in universal access which in the end contributes towards the growth of the sector. Wilson notes that many countries have established a regulatory authority separate from government and in charge of regulatory mechanisms to promote the use of ICTs such as licensing strategies, spectrum allocation, interconnection settlements, dispute resolution, among others

While many countries have begun reform through the establishment of a regulatory authority and allow competition, they may not have simplified licensing procedures which in the process affect investment in ICT. A number of developing countries still charge high license fees, limiting competition. Some countries also have multiple service specific licenses, which are increasingly outdated given technological convergence, with inter-modal competition between platforms (International Telecommunication Union (ITU), 2012). ITU observes that a sound regulatory environment

and stable institutions are the key factors driving ICT investment.

Critique of existing Literature

There is immense of literature on implementation and development of ICT in public sector by the governments. In addition, there are many factors that lead to IFMIS projects delay and completion in various countries as well as in Kenya. According to Maake (2007) the three most significant factors that adversely impact implementation of IFMIS projects in public sector include competence of personnel, legal framework and ICT infrastructure. In his study, Maake (2007), the challenges that South Africa faces include access to appropriate IT skills as well as appropriate functional skills by user departments. South Africa faces significant human capital development challenges in building the capacity required by an IFMIS. The shortage of skilled ICT people in the country is exacerbated by the emigration of highly skilled ICT personnel and other professionals to developed countries, and from the public to the private sector (Farelo & Morris, 2006).

Additionally, according Chene(2009), Capacity building is a major factor affecting the success of IFMIS implementation, especially in developing countries. Further, the shortage of skilled ICT people in the country is exacerbated by the emigration of highly skilled ICT personnel and other professionals to developed countries, and from the public to the private sector (Farelo & Morris, 2006). Finally, Imran (2007) puts forward that at the national level, a low level of economic development, poor infrastructure and political unrest are inhibitors of public sector ICT progress. At a base level, access by individuals and organizations to ICT tools and IT-related education is necessary for e-government to be feasible. However, the studies failed to capture

the actual determinants that influence effective implementation of ICT and IFMIS in public sector which this study seeks to explore.

Summary

The governments are introducing innovations in their organizational structures and practices, and in the ways in which they mobilize, deploy and utilize human, financial and ICT resources (United Nations 2011). The use of ICT in the public sector, or e-government as it is known, is playing a critical role in governments' efforts to revitalize their public sectors. A number of developing countries still have multiple service specific licenses, which are increasingly outdated given technological convergence, with inter-modal competition between platforms (International Telecommunication Union (ITU), 2012). ITU observes that a sound regulatory environment and stable institutions are the key factors driving ICT and IFMIS investment with a clear policy. According to Bhatnagar (2004) there are high risks involved in implementing too many components of the reform at once and practitioners believe that risks can be mitigated with a phased approach that rolls out across government institutions in a gradual and flexible process. Large IT-projects require substantial investments in equipment, training and infrastructure, and involve high risks of delays and failure, because of interdependency of the various project components. This study therefore intends to fill these pertinent gaps in literature by studying the selected independent variables on the relationship between challenging determinants of performance of IFMIS in the Kenyan government ministry of finance. This study will add value to existing literature by providing empirical evidence on the determinants of

performance of IFMIS in the Kenyan government ministry of National Treasury.

Research Gap

Previous studies have adequately described the numerous drivers and barriers for implementation of IFMIS but no work has been published in the Kenya with regard to the determinants of performance of IFMIS in the Kenyan government. The review of the relevant research in the field shows that scholars focused either on challenges and conducted their analysis from a single perspective or investigate them by looking at only one of the aspects of their application – effects and positive side of implementing IFMIS in public sector (Maake, 2007; Farelo & Morris, 2006; Chene,2009; Sanwal 2007, Rose & Grant,2009). According to International Telecommunication Union (ITU), (2012) observes that a sound regulatory environment and stable institutions are the key factors driving ICT investment. Gerster Consulting, (2008) also recommended that African Governments and their international partners create and support enabling environments, consisting of both ICT-specific regulatory frameworks and an overall policy framework that promotes sound economic and political governance However, these studies were not conducted on in Kenya which is a unique field by itself. This study therefore sought to fill the gap by the determinants of performance of IFMIS in the Kenyan government in ministry of National Treasury.

RESEARCH METHODOLOGY

Introduction

This Chapter specifies the nature of the research design and the population to be studied. The research design, target population, sampling

techniques, data collection techniques and data analysis methods that will be followed in the research process.

Research Design

Kothari (2004) observed that research design is a blue print which facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible hence yielding maximum information with minimal expenditure of effort, time and money. This study will use descriptive research design. This design refers to a set of methods and procedures that describe variables. It involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data. Descriptive studies portray the variables by answering who, what, and how questions (Bernard, 2011). The study was descriptive in nature as it is deemed appropriate because it involve use of written questionnaires administered to respondents. Baker (2009) recommends descriptive design as it allows the researcher to describe, record, analyze and report conditions that exist or existed. Since this study sought to establish the factors of performance of Integrated Financial Management Information Systems in the public sector in Kenya, descriptive research design is the best design. This had the advantage of providing an in-depth investigation of the problem under study

Target Population

Kothari (2004) described population as the entire group of individuals or items under consideration in any field of inquiry and have a common attribute. The population of the study was 800 public officers working at the National Treasury who included Procurement Officers, Record officers, ICT, Finance and Accounts and Human Resources according to the data available at National Treasury (GoK, 2014).

Table 3.1: Target Population

Department	Number of officers	Percentage
Procurements	120	15
Records	280	35
ICT	180	23
Finance and Accounts	130	16
Human Resources	90	11
TOTAL	800	100

Source; (GoK, 2014)

Sample and Sampling Technique

A sample size is a set of observations drawn from a population by a defined procedure (Creswell, 2003). Mugenda & Mugenda (2003) indicates that a sample size of 10% of the target population is large enough so long as it allows for reliable data analysis and allows testing for significance of differences between estimates. Therefore, a proportionate sample size of approximate 80 respondents which is 10% precision of the population was selected using a stratified sampling technique from the identified sample.

Table 3.2: Sample distribution

Department	Number of officers	Sample Ratio (10%)	Sample Size
Procurements	120	0.1	12
Records	280	0.1	28
ICT	180	0.1	18
Finance and Accounts	130	0.1	13
Human Resources	90	0.1	9
TOTAL	800	0.1	80

Research Instruments & Data collection

Procedure

The study relied mainly on primary data. The researcher used questionnaire as the research instrument. The study utilized questionnaire that was developed for generating information on key variables of interest from the targeted respondents in the study. The research also undertook desk review of existing information

about the study areas and collect qualitative data through in-depth interview from respondents who are conversant with the subject through various interactions or experiences. These respondents were specifically targeted for their ability to provide pertinent information to the study.

Secondary data was obtained from literature sources or data collected by other people for some other purposes. Secondary data was collected through review of published literature such as journals articles, published theses and textbooks. The study made use of secondary data from treasury records. These sources were reviewed to give insight in the search for primary information. They gave insight on variables selection, development of instruments and discussion of the findings.

A self-administered questionnaire was dropped to each respondent and picked later. The questionnaire consisted of both open ended and closed ended questions. The questionnaire will be divided into two parts covering demographic variables and study variables. And where additional information was required by the study, semi-structured interviews were conducted. The study used both qualitative and quantitative data. Qualitative data was applicable since meanings were based on expressions through words and analysis was conducted through the use of content analysis. Quantitative data was applicable since meanings were derived from numbers and analysis was conducted through the use of diagrams and statistics. This information was coded and analyzed with the help of statistical package for social sciences (SPSS) software package version 21 and excel.

Pilot Test

According to Borden & Abbott (2008), pilot study is as a small-scale version of the study used to establish procedures, materials and parameters to be used in the full study. Pilot study was conducted in determining if there were flaws, limitations, or other weaknesses within the data collection instrument to make the necessary revisions prior to the implementation of the study. It is recommended that 10% of the sample should constitute the pilot test (Neumann, 2006). A pilot study was undertaken on at least 8 respondents of the sample size to test the reliability and validity of the questionnaire. The findings of the pilot study were included in the actual study (Mugenda & Mugenda, 2008).

Reliability and validity of the research instruments

Reliability is the extents to which a research instrument yields findings that are consistent each time it is administered to same subjects (Mugenda and Mugenda, 2003). The measurement of reliability provides consistency in the measurement variables (Kumar, 2000). Cronbach alpha is the basic formula for determining the reliability based on internal consistency (Kim & Cha, 2002). The standard minimum value of alpha of 0.7 is recommended Gupta (2004) as the minimum level for item loadings. Higher alpha coefficient values means there is consistency among the items in measuring the concept of interest. Suppose that we assume a sum of K components (K-items or test lets) $X = Y_1 + Y_2 + \dots + Y_k$. Cronbach's α

$$\alpha = \frac{K}{K - 1} \left(1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

where σ_X^2 the variance of the observed total test scores, and $\sigma_{Y_i}^2$ the variance of component i for the current sample of persons.

If the items are scored 0 and 1, a shortcut formula is

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^K P_i Q_i}{\sigma_X^2} \right)$$

where P_i is the proportion scoring 1 on item i , and $Q_i = 1 - P_i$. This is the same as KR-20.

Alternatively, Cronbach's α can be defined as

$$\alpha = \frac{K\bar{c}}{(\bar{v} + (K-1)\bar{c})}$$

Where K is as above, \bar{v} the average variance of each component (item), and \bar{c} the average of all covariance's between the components across the current sample of persons (that is, without including the variances of each component).

Validity is the degree to which the sample of the test item represent the content that is designed to measure, that is, the instrument measures the characteristics or trait that is intended to measure (Mugenda & Mugenda, 2008). Data need not only to be reliable but also true and accurate. If a measurement is valid, it is also reliable (Creswell, 2003). The research adopted content validity which refers to the extent to which a measuring instrument provides adequate coverage of the topic under study. The content validity will be achieved by subjecting the data collection instruments to an evaluation group of IFMIS who will provide their comments and relevance of each item of the instruments and the experts indicate whether the item is relevant or not.. The content validity formula by

Yin (2003) was used in this study. The formula is; Content Validity Index = (No. of judges declaring item valid) / (Total no. of items). It is recommended that instruments used in research should have CVI of about 0.78 or higher and three or more experts could be considered evidence of good content validity (Yin, 2003).

Data Analysis and Presentations

Data collected will be analyzed using both quantitative and qualitative methods with the help of (SPSS) version 21 and excel. Data processing was carried out through editing, coding and classification. Content analysis was employed to analyze the qualitative data whereas simple statistical methods, regression and correlation analysis was utilized to analyze the quantitative data by aide of SPSS Software version 21 and excel. The Pearson correlation and regression analysis was applied to establish the relationship of the variables at 5% level of significance. The equation was expressed as follows:

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

Where; Y= Performance of IFMIS in Public sector; β_0 = constant (coefficient of intercept); X_1 = Human Resource capacity; X_2 = ICT Infrastructure; X_3 = Implementation strategy X_4 = Government policy; ϵ = error term; $\beta_1 \dots \beta_4$ = regression coefficient of four variables. The findings were presented using tables, charts and graphs to facilitate comparison and for easy inference.

RESULTS AND DISCUSSIONS

Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study.

The primary data was gathered from the questionnaire as the research instrument. For this purpose, the various statistical analysis tools like Cronbach's alpha, correlation analysis and multiple regression analysis have been employed to determinants of performance of IFMIS in public sector in Kenya.

Response Rate

Table 4.1 Response Rate

Questionnaires Administered	Questionnaires filled & Returned	Percentage
80	50	62.50

The study targeted a sample size of 80 respondents from which 50 filled in and returned the questionnaires making a response rate of 62.50% as shown in Table 4.1. This response rate was satisfactory to make conclusions for the study. Mugenda & Mugenda (2003) states that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the findings of this study, the response rate was excellent. This high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires. The response rate was therefore adequate for the study to make relevant conclusions basing on the responses.

Reliability and Validity Test Results

A pilot study was carried out to determine reliability and validity of the questionnaires. The pilot study involved the sample respondents. Reliability analysis was subsequently done using Cronbach's Alpha which measured the internal consistency. Gliem & Gliem (2003) established the Alpha value threshold at 0.7, thus forming the study's benchmark. Cronbach Alpha was established for every objective which formed a scale. Table 4.2 illustrates that all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.7.

The content validity formula by Amin (2005) was used in this study to establish the validity of the research instrument. The formula is; Content Validity Index = (Number of judges declaring item valid) / (Total number of items). It is recommended that instruments used in research should have CVI of about 0.78 or higher and three or more experts could be considered evidence of good content validity (Amin, 2005). From the results in Table 4.2, it illustrates that all the four variables were valid as their CVI values exceeded the prescribed threshold of 0.78 as emphasized by Amin (2005).Table 4.2:

Pilot Test Results

Scale	Cronbach's Alpha	CVI	Remarks
Human Resource Capacity	0.853	0.789	Accepted
ICT Infrastructure	0.770	0.989	Accepted
Implementation Strategy	0.845	0.778	Accepted
Government Policy	0.785	0.798	Accepted
Performance of IFMIS in Public sector	0.885	0.800	Accepted

Demographic Information

Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population and testing appropriateness of the respondent in answering the questions for generalization purposes. The demographic information comprised of the gender, age, level of education and work experience.

Gender of the Respondents'

The study sought to determine the gender composition of the respondents. The information is as illustrated in Figure 4.1.

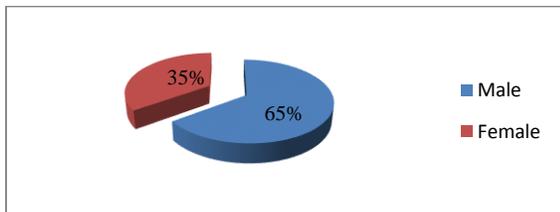


Figure 4.1 : Gender of the respondents

From the findings, it was established that majority of the respondents as shown by 65% were male whereas 35% of the respondent were female, this is an indication that both genders were well represented in this study and thus the finding of the study did not suffer from gender bias all through the study. This implies there were more male than female respondents though with less disparity meaning that there is gender balance among the employees involved in the implementation of the projects. Carter and Shaw (2007) found that organizations with gender balance were motivated to perform better towards organization goal as women and men compete favorably to deliver on their assignments.

Age Distribution of the Respondents

The study requested the respondents to indicate their age category. The results were as shown in Figure 4.2.

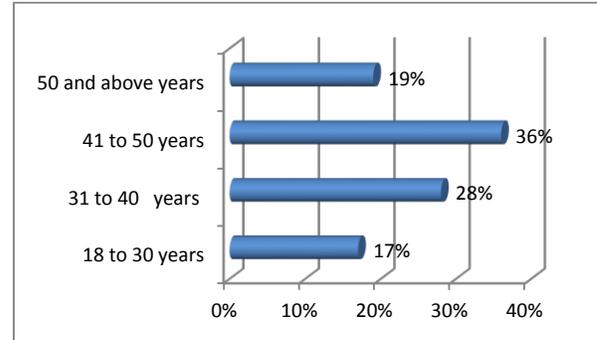


Figure 4.2: Age Distribution

From the research findings, the study revealed that most of the respondents as shown by 36% were aged between 41 to 50 years, 17% of the respondents were aged between 18 to 30 years, 19% were above 50 years whereas 28% of the respondents were aged between 31 to 40 years. This implies that respondents were well distributed in terms of their age during the study. This also implies that majority of the respondents were at their maturity stage and therefore able to handle their roles responsibly. The findings support the move by the organizations giving emphasis on maturity and experience during the implementation of various projects. Baines & Hardill(2008) found that age is associated with experience and responsibility at work place.

Educational Level of Respondents

The study sought to establish the educational background of the respondents and the findings were as shown in Figure 4.3.

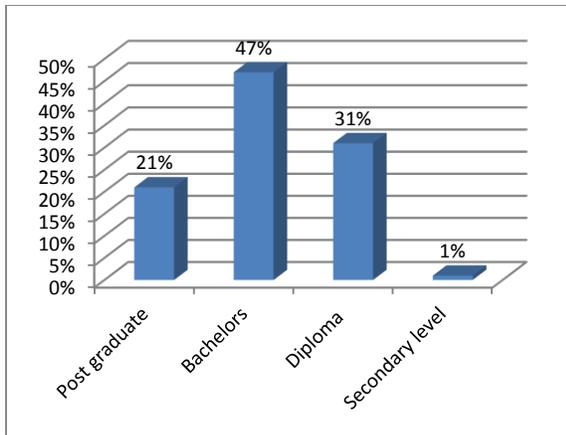


Figure 4.3: Respondents Educational Level

From the study findings, most of the respondents as shown by 47% indicated that they held bachelors certificates, 31% of the respondents had diploma certificates, 21% indicated to have reached postgraduate level and 1% of the respondents had reached secondary level and this implies that most of respondents were well educated and that they were in a position to respond to research questions with ease. Hazernberg (2012) associated the education level of project managers with findings that, those with higher levels of education are more successful because higher education provides them knowledge and modern managerial skills, making them more conscious of the reality of the organization management world and thus in a position to use their learning capabilities to enhance project implementation and delivery. The findings therefore indicate that the respondents have the capacity, skills and management acumen to facilitate performance of IFMIS in the organization. These skills may help them handle and interpret their respective services and the emerging issues on implementation and performance of the IFMIS to the best level possible.

Human Resource Capacity

The study sought to establish the extent to which respondents agreed with the statements relating to human resource capacity influence performance of IFMIS in public sector in Kenya. A scale of 1-5 was used. The scores “Very small extent” and “Small extent” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ($1 \leq \text{Small extent} \leq 2.5$). The scores of ‘Moderate extent’ were represented by a score equivalent to 2.6 to 3.5 on the Likert scale ($2.6 \leq \text{Moderate} \leq 3.5$). The score of “Great extent” and “Very great extent” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale ($3.6 \leq \text{Moderate extent} \leq 5.0$). The mean was generated from SPSS version 21 and is as illustrated in Table 4.3. From the research findings, majority of the respondents indicated that to a small extent that they had adequate technical staff to ensure that there was efficiency of the IFMIS in the organization as shown by a mean of 1.96; to a moderate extent the respondents cited that the technical staff was engaged on planning and implementation of IFMIS to ensure quality of service as shown by a mean of 3.22; small extent did the qualified and trained technical staff implement IFMIS in the organization as shown by a mean of 2.41. The respondents to a great extent did have proper leadership for the project team responsible for the initiation, execution, monitoring and controlling of IFMIS in the organization as shown by a mean of 3.99; to a small extent they had training program for the use of IFMIS on the organization as shown by mean of 1.55. To a moderate extent the respondents indicated that the organization relies heavily on experts to run the IFMIS system as shown by mean of 3.02 and the users are well trained to handle IFMIS on the organization by mean of 2.48. Finally the respondents to a moderate

extent stated that ICT phobia among the staff members affect performance of IFMIS in the organization. The findings of the study are in agreement with literature review by Selfano & Serah(2014) who indicated that human resource capacity plays a significant role on performance of IFMIS in the organization. The effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. Sigei (2013) 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 an IFMIS in developing countries. Hove & Wynne(2010) contend that the human resource 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 government.

Table 4.3: Elements relating to influence of human resource capacity on performance of IFMIS

Statement	Very small extent	Small extent	Moderate	Great extent	Very great extent	Mean	Std deviation
Do you have adequate technical staff to ensure that there is efficiency of the IFMIS in the organization?	71.5%	6%	9%	6.5%	7.5%	1.96	0.32
How is the technical staff engaged on planning and implementation of IFMIS to	6.5%	8%	67.5%	7%	11%	3.22	0.36

ensure quality of service?							
Do you have qualified and trained technical staff to implement IFMIS in the organization?	6.5%	72.5%	6.5%	6.5%	8%	2.41	0.44
Do you have proper leadership for the project team responsible for the initiation, execution, monitoring and controlling of IFMIS in the organization	5.5%	11%	6.5%	67.5%	9.5%	3.99	0.65
Do you have training program for the use of IFMIS in the organization	81.5%	6%	9%	2.5%	7.5%	1.55	0.92
Does the organization relies heavily on experts to run the IFMIS system?	6.5%	18%	57.5%	7%	11%	3.02	0.44
How are the users trained to handle IFMIS on the organization?	6.5%	62.5%	6.5%	6.5%	18%	2.41	0.44
Does ICT phobia among the staff members affect performance of IFMIS in the organization?	5.5%	6%	6.5%	77.5%	4.5%	3.88	0.95

ICT Infrastructure

The study sought to establish the extent to which respondents agreed with the statements relating

to ICT Infrastructure influence performance of IFMIS in public sector in Kenya. A scale of 1-5 was used. The scores “Very small extent” and “Small extent” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ($1 \leq \text{small extent} \leq 2.5$). The scores of ‘Moderate extent’ were represented by a score equivalent to 2.6 to 3.5 on the Likert scale ($2.6 \leq \text{Moderate} \leq 3.5$). The score of “great extent” and “Very great extent” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale ($3.6 \leq \text{great extent} \leq 5.0$). The mean was generated from SPSS version 21 and is as illustrated in Table 4.4.

Table 4.4 reveals that majority of the respondents indicated that to a moderate extent that they had enough computers for the staff to use for IFMIS in the organization as shown by a mean of 3.01; to a moderate extent the respondents cited that the organization ensured that IFMIS soft wares are available for the use by the staff as shown by a mean of 2.82; to a small extent did the respondents state that they got reference manual for use on the management of IFMIS as shown by a mean of 2.41. The respondents to a great extent did find the system to be complex in processing of information thus affecting service delivery as shown by a mean of 3.76; to a moderate extent the respondents indicated that the systems complicate very simple manual processes thus affecting efficiency of IFMIS as shown by mean of 3.05 and there is accessibility of IFMIS to all users at any time (24 hours), from anywhere as shown by mean of 3.02. Finally the respondents to a small extent did have relevant security to access the systems as shown by a mean of 2.41. This reveals that there is lack of enough computers, accessibility and software’s to enable the users perform their roles well thus affecting performance of IFMIS in the organization. According to Wafula & Wanjohi(2009) the Kenyan government is

undertaking ambitious reforms to further revitalize or transform their public sectors. To accomplish this revitalization, governments are the governments are trying to ensure that there is well laid ICT infrastructure to support IFMIS in Kenya.

Table 4.4: Elements relating to influence of ICT Infrastructure on performance of IFMIS

Statement	Very small extent	Small extent	Moderate	Great extent	Very great extent	Mean	Std deviation
Do you have enough computers for the staff to use for IFMIS in the organization?	35.5%	6%	61.5%	6.5%	7.5%	3.01	0.32
How has the organization ensured that IFMIS soft wares are available for the use by the staff?	6.5%	67.5%	7.5%	7%	11%	2.82	0.66
Do you get reference manual for use on the management of IFMIS?	6.5%	72.5%	6.5%	6.5%	8%	2.41	0.04
Do you find the system to be complex in processing of information thus affecting service delivery?	5.5%	11%	67.5%	6.5%	9.5%	3.76	0.85
Do the systems complicate very simple manual processes thus affecting efficiency of IFMIS?	22.5%	6%	65%	2.5%	7.5%	3.05	0.92
Is there accessibility of IFMIS to all users at	6.5%	18%	57.5%	7%	11%	3.02	0.44

any time (24 hours),
from anywhere?

Do you have relevant security to access the systems?
6.5% 62.5% 6.5% 6.5% 18% 2.41 0.44

Implementation Strategy

The study sought to establish the extent to which respondents agreed with the statements relating to implementation strategy influence performance of IFMIS in public sector in Kenya. A scale of 1-5 was used. The scores “Very small extent” and “Small extent” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ($1 \leq \text{Small extent} \leq 2.5$). The scores of ‘Moderate extent’ were represented by a score equivalent to 2.6 to 3.5 on the Likert scale ($2.6 \leq \text{Moderate} \leq 3.5$). The score of “Great extent” and “Very great extent” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale ($3.6 \leq \text{Great extent} \leq 5.0$). The mean was generated from SPSS version 21 and is as illustrated in Table 4.5.

From the research findings, majority of the respondents indicated that to a moderate extent that they had strategic plan for implementation of the IFMIS as shown by a mean of 3.96; the organization had proper systems approach of planning, scheduling of IFMIS as shown by a mean of 3.22; there was adequate project team involved in implementation of the IFMIS as shown by a mean of 3.91. The respondents to a great extent indicated that there was framework used to guide on how the plan can be realized as shown by a mean of 4.00 and they had training program for the use of IFMIS on the organization as shown by mean of 4.55. The study results reveals that lack of proper systems approach of planning, scheduling and training program in

the strategic plan may have contributed non-performance of IFMIS in the organization. The findings of the study are in tandem with findings of Njonde & Kimanzi(2014) who indicated that strategic planning in implementation strategy is a process that results in decisions and actions to guide what your program is, what it does, and why it does it which enhance performance of IFMIS in the public sector.

Table 4.5: Elements relating to influence of implementation strategy on performance of IFMIS

Statement	Very small extent	Small extent	Moderate	Great extent	Very great extent	Mean	Std deviation
Do you have strategic plan for implementation of the IFMIS?	3.5%	6%	78.5%	6.5%	7.5%	3.96	0.82
Does the organization have proper systems approach of planning, scheduling of IFMIS?	6.5%	8%	67.5%	7%	11%	3.22	0.39
Do you adequate project team involved in implementation of the IFMIS	6.5%	72.5%	6.5%	6.5%	8%	3.91	0.46
Do you a framework used to guide on how the plan can be realized?	5.5%	11%	6.5%	67.5%	9.5%	4.00	0.63
Does the strategic plan facilitate decisions and actions that guide implementation of the IFMIS?	7.5%	6%	9%	2.5%	81.5%	4.55	0.22

Government Policy

The study sought to establish the extent to which respondents agreed with the statements relating to influence of government policy on performance of IFMIS in public sector in Kenya. A scale of 1-5 was used. The scores “Very small extent” and “Small extent” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ($1 \leq \text{Small extent} \leq 2.5$). The scores of ‘Moderate extent’ were represented by a score equivalent to 2.6 to 3.5 on the Likert scale ($2.6 \leq \text{Moderate} \leq 3.5$). The score of “Great extent” and “Very great extent” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale ($3.6 \leq \text{Great extent} \leq 5.0$). The mean was generated from SPSS version 21 and is as illustrated in Table 4.6.

From the research findings, majority of the respondents indicated that to a moderate extent that the existing IFMIS policy influence its performance as shown by a mean of 3.56; the government ensure that there is compliance on the usage of IFMIS in the organization as shown by a mean of 3.55; there is implementation of policy in regard to use of IFMIS in the organization as shown by a mean of 2.91. The respondents to a moderate extent indicated that the existing IFMIS policy influence its performance as shown by a mean of 3.75. Therefore, study results established that government policy influence performance of IFMIS in the organization. It is important to have clear legal guidance on the roles and responsibilities of all institutions involved in the implementation of an IFMIS. According to Dzidonu(2011), a government policy which is a legislative framework consists of the constitution, finance act and regulations, and needs to include: the roles and responsibilities, of the treasury, and other departments responsible for the control and management of

public finance, the main form of government funds, receipt and custody of public funds, the annual process, submission and approval of estimates and the procedures for release of funds, the basis of accounting and the form of annual accounts for audit and presentation enhance performance of IFMIS.

Table 4.6: Elements relating to influence of government policy on performance of IFMIS

Statement	Very small extent	Small extent	Moderate	Great extent	Very great extent	Mean	Std deviation
How does the existing IFMIS policy influence its performance	3.5%	14%	70.5%	6.5%	7.5%	3.56	0.02
Does government ensure that there is compliance on the usage of IFMIS in the organization?	6.5%	18%	57.5%	7%	11%	3.55	0.39
Is there implementation of policy in regard to use of IFMIS in the organization	6.5%	62.5%	16.5%	6.5%	8%	2.91	0.46
How do rule and regulations influence performance of IFMIS in the organization	5.5%	11%	16.5%	57.5%	9.5%	3.75	0.63
How does the existing IFMIS policy influence its performance	7.5%	6%	9%	2.5%	91.5%	4.55	0.22

Performance of Public Sector

The study sought to establish the rating on the performance of IFMIS in the organization. The results are as illustrated in Figure 4.4

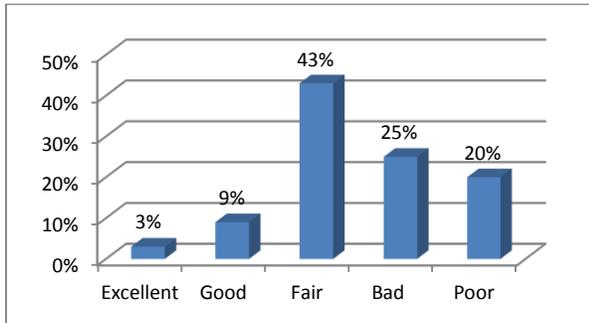


Figure 4.4: Rating on the performance of IFMIS in the organization

The study established that majority of the respondents (43%) indicated that performance of IFMIS was fair, 9% cited to be good, 3% to be excellent, 25% indicated bad and 20% of the respondents cited that it was poor. The study results show that performance of IFMIS is moderate at National Treasury.

The study sought to establish the extent to which respondents agreed with the statements relating to performance of IFMIS in public in the organization. A scale of 1-5 was used. The scores “Strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ($1 \leq \text{Disagree} \leq 2.5$). The scores of ‘Neutral’ were represented by a score equivalent to 2.6 to 3.5 on the Likert scale ($2.6 \leq \text{Neutral} \leq 3.5$). The score of “Agree” and “Strongly agree” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale ($3.6 \leq \text{Agree} \leq 5.0$). The mean was generated from SPSS version 21 and is as illustrated in Table 4.7. From the research findings, majority of the respondents were neutral that human resource capacity influence performance of IFMIS in the

organization as shown by a mean of 3.26; the ICT Infrastructure influence performance of IFMIS in the organization as shown by a mean of 3.55; the implementation strategy influence performance of IFMIS in the organization as shown by a mean of 3.77. Finally the respondents strongly agreed that the government policy influence performance of IFMIS in the organization as shown by a mean of 4.85. Therefore, study results established that human resource capacity, ICT Infrastructure, implementation strategy and government policy influence performance of IFMIS in the organization.

Table 4.7: Elements relating to performance of IFMIS

Statement	Very small extent	Small extent	Moderate	Great extent	Very great extent	Mean	Std deviation
Does human resource capacity influence performance of IFMIS in the organization?	5.5%	13%	70.5%	6.5%	7.5%	3.26	0.02
Does ICT Infrastructure influence performance of IFMIS in the organization?	5.5%	19%	57.5%	7%	11%	3.65	0.39
Does implementation strategy influence performance of IFMIS in the organization?	5.5%	11%	16.5%	57.5%	9.5%	3.77	0.63
Does government policy influence performance of IFMIS in the organization?	7.5%	6%	9%	2.5%	91.5%	4.85	0.22

Correlation Analysis

Pearson correlation was used to measure the degree of association between variables under consideration i.e. independent variables and the dependent variables. Pearson correlation coefficients range from -1 to +1. Negative values indicates negative correlation and positive values indicates positive correlation where Pearson coefficient <0.3 indicates weak correlation, Pearson coefficient >0.3<0.5 indicates moderate correlation and Pearson coefficient>0.5 indicates strong correlation

Table 4.8 Correlation Coefficients

		Perf orm	Hu man	ICT	Infra	Impl eme	Gov ern
Performance of IFMIS in public sector	R	1.000					
	Sig. (2-tailed)						
	N						
Human resource capacity	R	.896	1.000				
	Sig. (2-tailed)	.034					
	N	50					
ICT Infrastructure	R	.905	.314	1.000			
	Sig. (2-tailed)	.013	.004				
	N	50	50				
Implementation Strategy	R	.783	.345	.431	1.000		
	Sig. (2-tailed)	.047	.033	.020			
	N	50	50	50			
Government policy	R	.886	.241	.116	.302	1.000	
	Sig. (2-tailed)	.042	.024	.044	.002		
	N	50	50	50	50		

The analysis in Table 4.8 shows that ICT infrastructure has the strongest positive (Pearson correlation coefficient =.905) influence on performance of IFMIS in public sector. In addition, human resource capacity, implementation strategy and government policy are positively correlated to performance of IFMIS in public sector (Pearson correlation coefficient = .896, .783 and .886). The correlation

matrix implies that the independent variables are very crucial determinants of performance of IFMIS in public sector as shown by their strong and positive relationship with the dependent variable performance of IFMIS in public sector.

Multiple Regression Analysis

In addition, the researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on the on performance of IFMIS in public sector. The study applied the statistical package for social sciences (SPSS V. 21) to code, enter and compute the measurements of the multiple regressions for the study. According to the model summary Table 4.9, R is the correlation coefficient which shows the relationship between the independent variables and dependent variable. It is notable that there exists strong positive relationship between the independent variables and dependent variable as shown by R value (0.789). The coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable and the four independent variables that were studied explain 62.20% of the performance of IFMIS in public sector as represented by the R^2 . This therefore means that other factors not studied in this research contribute 37.80% of the performance of IFMIS in public sector. This implies that these variables are very significant therefore need to be considered in any effort to boost performance of IFMIS in public sector in the organization. The study therefore identifies variables as critical determinants of performance of IFMIS at National Treasury.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789	.622	.441	.223

Further, the study revealed that the significance value is 0.0229 which is less than 0.05 thus the model is statistically significant in predicting how human resource capacity, implementation strategy, ICT infrastructure and government policy influence the performance of IFMIS in public sector in Kenya. The F critical at 5% level of significance was 4.330. Since F calculated (9.9725) is greater than the F critical (value = 4.330), this shows that the overall model was significant.

Table 4.12: ANOVA

Model	Sum of Squares	Df	Mean Square	Sig.
Regression	3.335	4	.8337	.0223 ^a
Residual	3.764	45	.0836	
Total	8.266	49		

NB: F-critical Value = 4.330

Predictors: (Constant), Human resource capacity, implementation strategy, ICT infrastructure and government policy

The study ran the procedure of obtaining the regression coefficients, and the results were as shown on the Table 4.12

Table 4.9: Coefficient Results

Model	Unstandardized Coefficients	Standard Error	Beta	t	P-value.
(Constant)	34.147	1.223		2.615	.035
Human resource capacity	.783	.103	.152	4.223	.031
ICT Infrastructure	.801	.349	.054	5.724	.012
Implementation strategy	.777	.217	.116	3.036	.036
Government policy	.663	.193	.263	2.144	.045

Multiple regression analysis was conducted as to determine the relationship between performance of IFMIS in public sector and the four variables. As per the SPSS generated table above, the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$) becomes:

$$Y = 34.147 + 0.783X_1 + 0.801X_2 + 0.777X_3 + 0.663X_4$$

According to the regression equation established, taking all factors into account (Human resource capacity, implementation strategy, ICT infrastructure and government policy) constant at zero performance of IFMIS was 34.147. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in human resource capacity will lead to a 0.783 increase in performance of IFMIS.; a unit increase in ICT Infrastructure will lead to a 0.801 increase in performance of IFMIS, a unit increase in implementation strategy will lead to a 0.777 increase in performance of IFMIS and a unit

increase in government policy will lead to a 0.663 increase in performance of IFMIS. This infers that ICT infrastructure contribute most to performance of IFMIS at National Treasury. At 5% level of significance, human resource capacity had a 0.031 level of significance; ICT Infrastructure showed a 0.012 level of significance, implementation strategy showed a 0.036 level of significance and government policy showed a 0.045 level of significance hence the most significant factor was ICT infrastructure.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study sought to establish determinants of performance of IFMIS in public sector in Kenya. The study examined theoretically and empirically how various variables contributed to performance of IFMIS in public sector. In assessing the determinants, the study focused on how select factors (human resource capacity, implementation strategy, ICT infrastructure and government policy) influenced the performance of IFMIS in public sector. This chapter captures the summary of findings, from which conclusions were drawn and recommendations made.

Summary of the Findings

Research Question 1: What is the influence of human resource capacity on performance of IFMIS in public sector in Kenya?

The study established that human resource capacity influenced performance of IFMIS in the organization. Also majority of the respondents stated to a small extent that they had adequate technical staff to ensure that there was efficiency of the IFMIS in the organization, to a

moderate extent the respondents cited that the technical staff was engaged on planning and implementation of IFMIS to ensure quality of service and the qualified and trained technical staff implement IFMIS in the organization. The respondents to a great extent did have proper leadership for the project team responsible for the initiation, execution, monitoring and controlling of IFMIS in the organization and to a small extent they had training program for the use of IFMIS on the organization. The respondents stated that to a moderate extent the organization relies heavily on experts to run the IFMIS system and the users are well trained to handle IFMIS on the organization. Finally the respondents to a moderate extent stated that ICT phobia among the staff members affect performance of IFMIS in the organization. This indicates that human resource capacity plays a significant role on performance of IFMIS in the organization.

Additionally, the study revealed that the variable (Pearson correlation coefficient = .777) and p-value ($0.031 < 0.05$) statistically, strongly and significantly correlated to performance of IFMIS in the organization at 5% level of significance as it had a positive relationship with the dependent variable. This infers that human resource capacity is an important factor that enhances performance of IFMIS in the organization. This also implies that the more human resource capacity becomes the more the performance of IFMIS in the organization. Therefore, from these descriptive results show that the research which sought to establish the influence of human resource capacity on performance of IFMIS in the organization was achieved because it established that human resource capacity influences performance of IFMIS in the organization.

Research Question 2: To what extent does ICT Infrastructure influence performance of IFMIS in public sector in Kenya?

From the study results, it was revealed that majority of the respondents to a moderate extent had enough computers for the staff to use for IFMIS in the organization and the organization ensured that IFMIS softwares are available for the use by the staff. The respondents stated that to a small extent they got reference manual for use on the management of IFMIS. The respondents to a great extent did find the system to be complex in processing of information thus affecting service delivery. To a moderate extent the respondents indicated that the systems complicate very simple manual processes thus affecting efficiency of IFMIS and there was accessibility of IFMIS to all users at any time (24 hours), from anywhere. Finally the respondents to a small extent did have relevant security to access the systems. This reveals that there is lack of enough computers, accessibility and software's to enable the users perform their roles well thus affecting performance of IFMIS in the organization.

Further, the study revealed that the variable(Pearson correlation coefficient =.801) and p-value ($0.012 < 0.05$) statistically, strongly and significantly correlated to performance of IFMIS in the organization at 5% level of significance as it had a positive relationship with the dependent variable. This reveals that ICT infrastructure is an important factor that can enhance performance of IFMIS in the organization. This also reveals that the more ICT infrastructure becomes the more the performance of IFMIS in the organization. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of ICT infrastructure on

performance of IFMIS in the organization was achieved because it established that ICT infrastructure influences performance of IFMIS in the organization.

Research Question 3: How does implementation strategy influence performance of IFMIS in public sector in Kenya?

The study sought to establish whether implementation strategy influence performance of performance of IFMIS in the organization. From the descriptive analysis, the study results revealed that majority of the respondents indicated that to a moderate extent that they had strategic plan for implementation of the IFMIS; the organization had proper systems approach of planning, scheduling of IFMIS; there was adequate project team involved in implementation of the IFMIS. The respondents to a great extent indicated that there was framework used to guide on how the plan can be realized and they had training program for the use of IFMIS on the organization. The study results reveals that lack of proper systems approach of planning, scheduling and training program in the strategic plan may have contributed non-performance of IFMIS in the organization.

Finally, the study revealed that the variable(Pearson correlation coefficient =.783) and p-value ($0.036 < 0.05$) statistically, moderately and significantly correlated to performance of IFMIS in the organization at 5% level of significance as it had a positive relationship with the dependent variable. This reveals that implementation strategy is an important factor that can boost performance of IFMIS in the organization. This also reveals that the more implementation strategy becomes the more the performance of IFMIS in the organization Therefore, from these quantitative

results it can be deduced that the study which sought to establish the influence of implementation strategy on performance of IFMIS in the organization was achieved because it established that implementation strategy influences performance of IFMIS in the organization.

Research Question 4: Does government policy influence performance of IFMIS in public sector in Kenya?

The study sought to establish whether government policy influence performance of IFMIS in public sector in the organization. From the descriptive analysis, the study results showed that majority of the respondents indicated that government policy influence performance of IFMIS in public sector. Further, from the research findings, majority of the respondents indicated that to a moderate extent that the existing IFMIS policy influence its performance; the government ensure that there is compliance on the usage of IFMIS in the organization; there is implementation of policy in regard to use of IFMIS in the organization. The respondents to a moderate extent indicated that the existing IFMIS policy influence its performance. Therefore, study results established that government policy influence performance of IFMIS in the organization.

Finally, the study revealed that the variable (Pearson correlation coefficient =.663) and p-value ($0.045 < 0.05$) statistically, moderately and significantly correlated to performance of IFMIS in public sector at 5% level of significance as it had a positive relationship with the dependent variable. This reveals that a government policy is an important factor that can boost performance of IFMIS in public sector in the study area. This also reveals that the more

the government policy increases the more the performance of IFMIS in public sector in the organization. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of government policy on performance of IFMIS in public sector was achieved because it established that government policy influences performance of IFMIS in public sector

Conclusions

The study established that human resource capacity influenced performance of IFMIS in the organization. There was no adequate technical staff to ensure that there was efficiency of the IFMIS in the organization, the technical staff was engaged on planning and implementation of IFMIS to ensure quality of service and the qualified and trained technical staffs implement IFMIS in the organization. There was lack of proper leadership for the project team responsible for the initiation, execution, monitoring and controlling of IFMIS in the organization and shortage of training program for the use of IFMIS on the organization. The organization relies heavily on experts to run the IFMIS system and the users are not well trained to handle IFMIS on the organization. The ICT phobias among the staff members affect performance of IFMIS in the organization.

From the study results, it was revealed that majority of the respondents to a moderate extent had enough computers for the staff to use for IFMIS in the organization and the organization to a small extent ensured that IFMIS software are available for the use by the staff. There is no enough reference manual for use on the management of IFMIS and the users find the system to be complex in processing of information thus affecting service delivery. The users at the same time find the systems complicate very simple manual processes thus affecting

efficiency of IFMIS and there was accessibility of IFMIS to all users at any time (24 hours), from anywhere. There are few users who have relevant security to access the systems.

The study found out that implementation strategy influence performance of IFMIS in the organization. The organization had strategic plan for implementation of the IFMIS though there was lack of proper systems approach of planning, scheduling of IFMIS. There was no adequate project team involved in implementation of the IFMIS. The framework used to guide on how the plan can be realized and they had training program for the use of IFMIS on the organization was lacking.

The government policy influence performance of IFMIS in public sector in the organization. The existing IFMIS policy influence its performance but the government has not done much to ensure there was compliance on the usage of IFMIS in the organization. The implementation of policy was inadequate.

Recommendations

The study recommends for adequate technical staff to ensure that there was efficiency of the IFMIS in the organization, the technical staff should be engaged on planning and implementation of IFMIS to ensure quality of service and the qualified and trained technical staffs implement IFMIS in the organization. The government should ensure that there is proper leadership for the project team responsible for the initiation, execution, monitoring and controlling of IFMIS in the organization and avail

training program. There is need for organization to train its staff and not to rely on experts to run The study recommends that the government to ensure that there are enough computers and software for the staff to use for IFMIS in the organization softwares are available for the use by the staff. The reference manual for use on the management of IFMIS should be available and the users should be trained for them to find the system to be easier in processing of information.

The strategic plan for implementation of the IFMIS should be have proper systems approach of planning, scheduling of IFMIS. There is need to have adequate project team involved in implementation of the IFMIS. The study also recommends for framework used to guide on how the plan can be realized and the training program for the use of IFMIS on the organization should be increased.

5.5 Recommendations for Further studies

Since this study sought to establish the determinants of performance of IFMIS in public sector in Kenya, it was established that from literature review that there are scanty studies available on performance of IFMIS in the organization specifically in a government ministries. Additionally, very little has been undertaken to explore determinants of performance of IFMIS in public sector in Kenya the reason why the study recommends for similar studies to be undertaken in other ministries for generalization of the findings of this study.

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