ALIGNING TECHNICAL CAPABILITY WITH INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM AND SUPPLY CHAIN MEASURES IN THE KENYAN PUBLIC SECTOR

BY

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DECLARATION

I, the undersigned, declare that this research project is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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DEDICATION

This research project is dedicated to all those who gave me inspiration of pursuing my dreams. A special dedication to my loving parents Mr. Ezra Opar & Mrs Pamela Opar, my wife Sharon, my daughters Stacy and Nadia and Sisters Rozzy and Winnie and Brother Tony and the rest of my family members and friends, thanks a lot for your support and encouragement during my academic journey.
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LIST OF ABBREVIATIONS

AGD: Accountant General Department
CIDA: Canadian International Development Agency
DfID: Department for International Development
ERP: Enterprise Resource Planning Software
IFMIS: Integrated Financial Management Information System
MTEF: Medium Term Expenditure Framework
PDP: Public Debt Management
PFP: Public Finance Management
USAID: United States International Development Agency
ICT: Information Communication Technology
RoK: Republic of Kenya
SCM: Supply Chain Management
SIBET: Soft Issues Bid Evaluation Tool
PC: Procurement Committee
PFM: Public Financial Management
CSCMP: Council of Supply Chain Management Practitioners
SDAs: Sustainable Development Agendas
OECD: Organization for Economic Cooperation and Development
PPDA: Public Procurement and Disposal Act, [2005]
ABSTRACT

The Kenyan Government Introduced Integrated Financial Management Information System with aim of improving supply chain measures practices. The main aim of this study was to investigate aligning technical capability with IFMIS and supply chain measures in the Kenyan public sector. The objectives of the study were to determine how technical capability aligns with IFMIS and Supply Chain Measures in the Kenyan public sector; to establish the relationship between technical capability and IFMIS and Supply Chain Measures in the Kenyan Public sector; to investigate the impact of Integrated Financial Management Information System (IFMIS) on supply chain measures in the public sector. The study significantly will help to resolve some of the challenges faced by the procurement officers, while it’s being re-engineered, thus it will act as a source of efficiency and effectiveness in their day to day operations. Moreover, the results of this study will enable the government to formulate strategy to ensure IFMIS implementation is successful. The study will be based on Resource-based theory which analyzes the sources and sustainability of IFMIS the supply chain measures. The research study adopted a descriptive survey design. The population of study consisted of five ministries under the National Government of Kenya, the target population of the study include the Information Technology officers, Accountants, finance officers and procurement officers in the selected Ministries. Primary data was collected from respondents by using questionnaire. The data was coded to check for errors and omissions. Questionnaires responses were tabulated and processed by use of SPSS for data analysis. Percentages and frequency tables were used to present findings and regression analysis performed between technical capacity and IFMIS implementation elements. Majority of the respondents reiterated that skilled manpower, implementation strategy, employee commitment and dedication affect the Alignment technical capability of IFMIS on SCM in their ministries to a great extent. Respondents agreed that Lack of shared information technology vision contributes to the most severe problems in technical alignment of IFMIS and SCM in the government ministry. Most of the respondents indicated that IFMIS introduction has reduced manual data entry in line with the supply chain measures. The study concludes that there has been a moderate level of technical alignment of IFMIS in the government ministries. Traceability, Reduced corruption and Timeliness in place affect the technical alignment of IFMIS. IFMIS forms part of the financial management reform practices of developing countries globally. It holds benefits such as effective control over public finances, contributes to the enhancement of transparency and accountability and serves as a deterrent to corruption and fraud. The IFMIS should be designed to accommodate all financial transactions within the government to reduce waste, enhance record keeping, for planning and reduction of corruption. There is need to ensure that the requisite infrastructure are in place especially in outlying areas out of all public sector where ICT connectivity availability is a real challenge.
CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Alignment of technical capabilities with [IFMIS] has raised a number critical research on IFMIS application concerns which should be addressed before it can be considered dependable and valuable (Graham, 2007). Practitioners of supply chain management have for long time limited IFMIS to accounts receivables, procuring, general record and accounts payable modules (Schaap, 2006). These supply chain management undergo difficulties such as lack of skills by suppliers, system failure, and system congestion leading to slow transactions with roles that are necessarily interweaved and shows imperative support on labor-intensive procedures even where the IFMIS has been effected. The merits of implementing such enormous and multifaceted system are its capability to deliver a combined view of accomplishments, particularly of big and tangibly devolved system of government. Likewise it retains remarkably power systematic capabilities that permit system of government to recognize relationship between apparently incongruent undertakings (Schaap, 2006).

IFMIS alignment with technical capabilities consequently has been established to offer a structural approach for maintenance of present IFMIS on one hand and to enable the growth of a all-inclusive, joined and IFMIS. Business process alignment with technical capabilities is, thus, a serious facet to some extent IFMIS restructuring. This have need of a evaluation of all methods, well-designed processes, approaches, instructions and guidelines, regulation, funding provisions and linked processes. Original measures have to be developed and standardized all through the systems of the public sector operations. Innovative career reports will have to be solemnized. The systems provisions for interior and exterior mechanism of public sector financial management will have to be enriched. Information technology is enormously altering the way
facts are apprehended, summarized and interconnected, and the merits of these scientific improvements must not be undervalued (John and Robinson, 2003). Robust public sector Financial Management (PSFM) system is a catalytic agent for economic progress and expansion. It guarantees that the management and its Department increase to achieve and expend public funds in a competent and responsible way. Comprehensive structures, solid lawful and supervisory framework as well as a constituent and industrious civil examination are foundation of an efficient PSFM regime. Public Financial Management transformations have been acknowledged as the key drivers to well-organized public service delivery and formation of prosperity and engagement (Rantakyro, 2000). This calls for continual application of the Government’s reform platforms. One of the major transformation embarked on, is the computerization of Public Financial Management process.

The technical capabilities alignment of the IFMIS, Electronic Funds Transfer, public debt management systems and the Pension system amid others, these have been promised on the apprehension that government of Kenya can successfully influence present and incipient technology to boost the jump of transformations. IFMIS integration guarantees that all consumers observe to corporate standards, guidelines and measures, with the view to decreasing risks of malpractice of public resources. IFMIS has led to lower lead times, improved cost savings and reduction in wastes, quality assurance techniques, increased customer satisfaction since online analysis of tenders improves customer confidence hence it greatly impacts on supply chain measures, (Johnson and Scholes, 2002).

Effective SCM is the mixture of all parties such as outer contractors, partner companies and interior corporate amenities entities mutually inclusive within the organization and without,
involved in supplying the outputs, inputs or effects that will meet a specified public sector requirement. SCs are long-term, planned circles of associations amongst multiple, various organizations that are carried out from project to project, or they can be ad-hoc configurations well-known post-contract honor to provide a distinct, one-off objective (Rodin, 2008).

1.1.1 Supply Chain Measures

SCM are discussed in the framework of the following supply chain undertakings: Source, deliver, plan, and make assemble (Stewart, 1995; Gunasekaran et al., 2001). SCM can also be classified broadly into three categories namely; strategic level measures such as lead time, supplier pricing and cost savings. The tactical level measures like cash flow, flexibility, and purchase order and quality assurance. The operational level measures like achieving defect free deliveries and having the ability to avoid complaints. The order lead time refers the time elapsed in between the receipt of a customer order until delivery of finished goods to customer. The reduction in order cycle time leads to reduction in supply chain response time thus important performance measure and source of competitive advantage (Christopher, 2012).

Measurements of performance have a significant role to play in setting goals, assessing performance, and shaping future courses of activities. Conventionally contractor performance processes were grounded on price difference rejects on acceptance and on time conveyance. For quite some time, the assortment of suppliers and product selection were principally based on price competition with less responsiveness afforded to other criteria like excellence and dependability (Rantakyro, 2000).
1.1.2 The Public Sector in Kenya

The introduction of IFMIS in public sector procurement in Kenya is a honorable idea in driving electronic procurement as a transformation measure, only if effected in a accountable, transparent manner and to its fullest with suitable significant organizational structures and resources arranged to support the development (Owegi et al, 2006). According the general department of accountant’s service charter, the software of IFMIS was acquired in 1998 to offer present systems for actual accounting and financial management (Ombwatho, 2009). However, the progression of effecting the software implementation has been slow because, out of thirteen segments, only three have been partly aligned and functioning in few Sustainable Development Agendas (SDAs), a factor that has continued declining force to the procurement transformations creativity that has been on for almost two decades.

The Reform initiatives of procurement in the public sector have focused on making the national government procurement process more effective and efficient, fundamentally by delaying the legal ambiguities thought to be ways for waste and rent seeking in the system. The development of IFMIS started in 1998. The National Treasury formerly Ministry of finance in 2011 conveyed the IFMIS Re-engineering strategic plan 2011-2013 which gave the strategic direction for the re-engineering, re-branding and re-packaging of IFMIS. Its main goal to increase the effectiveness and efficiency of the procurement processes involved in management of public funds.

The ultimate goal of IFMIS to improve the value of public service delivery by giving timely and exact accounting and financial information across both the County and National government financial management. One of the modules of IFMIS is the Procure to pay (P2P) as an programmed procurement process from tendering, contract award to payment, requisition and
tendering. Therefore, much strength has been dedicated in conveying together prevailing procurement procedures and instructions into a solitary document, the Public Procurement and Disposal Act, (PPDA), 2005 (Njiraini & Moyi, 2006).

1.2 Statement of the problem

IFMIS is a government project that is gradually being re-engineered in government ministries with the objective that is nitratig streamlining financial operations. Many have been the occasion when Kenyans have grasped with disbelief at the sheer volume of resources misuse by the government ministries, departments and statutory bodies (Brown, 2008).

Reports by both the Kenya National Audit and the internal Audit Division of the National Treasury have for a number of years shown widespread misappropriation of state funds without proper justification and worse still, the funds have continuously gone for good. Recent firm and decisive action on the auditor generals’ report by that saw interdict high ranking Government officials in connection with both the fraudulent payment of non-existing company’s in Judiciary trough IFMIS(Rodin, 2008). There were more than 1,000 different institutions by various U.S. government regulatory agencies from manufacturing firms which require examination of all arrangements, serviceable processes, approaches, instructions and principles, lawmaking, banking provisions and linked processes, new measures will have to be recognized and standardized all over the operations of government. (Morgan, 2014).

Supply chain measures approaches, expertise and performance of the large-scale manufacturing organizations in the republic of Kenya which recognized that when ICT tools are well implemented, the organization will profit from them and consequently, the firm will be able to save on costs and ultimately realize high revenues (Magutu, 2013). The procurement
performance and IFMIS in the public sector in Kenya have been to a moderate level of enactment of IFMIS among the national government ministries in Kenya (Mutui, 2014).

Regardless of reality of manual grounded control systems, lack of accountability in the budget made by the government that has been of a great concern to the general public and worldwide organizations such as World Bank and IMF (Kishor, 2013). The impact of IFMIS execution on Supply Chain Performance in Decentralized governments in Kenya and resolved that the implementation of IFMIS affects SCM effectiveness, efficiency, cost savings, functionality and the increased quality in Nairobi City County Government (Beverlyne & Lundu 2015).

There has been an influential factor to public sector procurement in Kenya continuously lasting and being susceptible to all means of indiscretions with a spate of court cases and controversies continuing to plague procurement procedures for a number of public projects as stated by Mosoba (2012) and Aketch (2013). However, the Kenyan national government is still devoted to implementing the reforms to produce a leaner, effective, interested and more creative public service, public procurement encompassed. There have been several other studies linking IFMIS implementation and performance of SCM in various sectors and industries around Kenya and the world such as IFMIS and Procurement Performance in the Kenyan Public Sector (Mutui, 2014). IFMIS implementation and its impact on public procurement performance on the national government of Kenya. [Biwott, 2015]. According to the researcher’s best knowledge, little or no study done that has sought to investigate influence of aligning technical capability with IFMIS and Supply Chain Measures hence the research gap. A study to understand the effect of aligning technical capability with IFMIS and SC Measures of the public sector within the Kenya context
was therefore carried out. The research therefore seek to provide answers to the question, what is the effect of aligning technical capability with IFMIS and supply chain measures in the public sector?

1.3 Objective of the study

1.3.1 General objective
The purpose of the study was to investigate aligning technical capability with integrated financial management information system and supply chain measures in the Kenyan public sector

1.3.2 Specific Objective
The specific objectives were:

i. To determine how technical capability aligns with IFMIS and Supply Chain Measures in the Kenyan public sector.

ii. To establish the relationship between technical capability and IFMIS and Supply Chain Measures in the Kenyan Public sector

iii. To investigate the impact of IFMIS on supply chain measures in the public sector.

1.4 Research questions.
The study sought to answer these questions;

i. How does technical capability align with IFMIS and SCM in the Kenyan public sector?

ii. What is the relationship between IFMIS and SCM in the public sector?

iii. What is the impact of IFMIS on supply chain measures in the public sector?

1.5 Value of the study
The Government department such as Accounts, Procurement, Finance, Internal Audit, ICT and The Kenya National Audit Office who uses the IFMIS and understands its functions, will rely on
the Research. It will also help to resolve some of the impediments faced by the officers, while it’s being re-engineered, thus it will act as a source of efficiency and effectiveness in daily operations. Moreover, the study findings will assist the government to formulate strategy to ensure IFMIS implementation is successful.

Further, by this study showing the impact of IFMIS on supply chain measures, the government and policy formulators will be able to plan, design and get empirical evidence on the need of developing sound enterprise resource management system that will align itself to the overall economic strategy and lead to efficient service delivery. This study will give an opportunity to public service commission management and policy makers with the right knowledge they need to accomplish their managerial functions meant at refining the information availability required at numerous phases of management in financial matters, like supply chain management, budgeting, treasury management, auditing and accounting. To the practitioners, this information will help supply chain practitioners in taking corrective actions aimed at maximizing the value that the ministry can get by having fully implemented information system. They will also be able to determine the effects of adopting IFMIS on their supply chain Measures.

To the general public, this study is equally beneficial since private enterprises for example are also interested in building sound Supply chain management system. The improved service delivery because of adoption of this study findings will of huge benefits the general public and more so to the national government suppliers. The findings of the study are also beneficial to future researchers since it highlighted areas requiring further research in the operations of the IFMIS in the government.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter the study present a detailed review of literature on the topic under study by different scholars, researchers, academics, experts and authors. The researcher drew materials from several sources which are closely related to the topic and the study objective. The research under review has attracted quite a number of writers because many countries have started implementation of IFMIS. This concern poor performance of basic financial functions, failure of main server linked to internet connectivity, automation linkages with other software, lack of financial information, poor regulations, low employee incentive and inadequate accounting knowledge and lack of accountability. Consequences of the shortcomings are: lack of information for decision support, lack of confidence in what information is available because it is incomplete and contains errors; and a demotivated accounting cadre and overall poor performance.

2.2 Theoretical Review

This study presents two theories which are resourced based theory and the weick’s model theory based on the IFMIS and SCM. They are discussed in line with the main purpose of the study.

2.2.1 Resource-based theory

The ICT pursuit has for quite some time been a fundamental principle in the sector of supply chain management (Pressutti, 2003). In this sector, resource-based theory (RBT) has developed as a favorable new background for investigating the springs and sustainability of Information Technology (Baily, 2008). According to RBT, IT- measured as commercial rent (Caridiet al, 2004) - arises from planned means. Such IT is sustainable to the degree that the resources on
which it is based are inimitable, non-substitutable valued and rare (Bales & Fearon, 2006). Additionally, the theory rests on the grounds that resources managed by organizations are diverse and comparatively immovable (Pearcy & Guinipero, 2008). The IT resulting out of such resources might be continued since other organizations which try to replicate them do not have the obligatory governmental knowledge, the learning competence, or the period necessary to accrue them. Assumed dynamic nature of the IT, there is a belief that the sustainability of such an improvement must be well-defined in vibrant, time delicate terms.

2.2.2 Weick's model theory
One of the refined concepts of governmental structure is Weick's model theory of establishing. It takes into account the fast-paced, non-substitutable nature of today's business decline (Czarniawska, 2014). Equivocality simmers down to any lack of production because of the staff, on any given position having to confirm with the superiors brought about by bureaucracy and not aligned administrative assembly which significantly affect the supervision style of the business (Lecose, 2013). The Weick's model gives us an information system, which comprises regularly and occasionally previously tackled matters (Langley, Smallman, Tsoukas & Van de Ven, 2013). The staff of the organization have right of entry to this information and practice it to prevent any ambivalence or inertia that might delay production of the business decisions (Feldmann, 2013). The certainty gained in the information system leads to advanced efficiency because with the ease of which arrangements and strategies can be reformed to ensemble the current or estimated needs. The Wieck model theory of establishing narrates to the regime strategies on the performance of IFMIS (Kotter, 2007).
2.3 Technical capability with IFMIS and Supply Chain Measures

Several countries have undertaken the public sector changes such as Australia, the UK, New Zealand, undertook to break away from the old-fashioned bureaucratic concept of public administration stated by (Sigei, 2013) which involved the breaking of the larger units into smaller manageable otherwise equated to devolved units in Kenya today. The public administrations have begun to: sell off public assets, constrain public spending, and outsource many services which previously were provided wholly by the public sector to the develop public asset performance measurement, private companies, output, business-type accounting and outcome-based budgeting (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, national government came into the decision to approve and implement an EPICOR based IFMIS after the case study tour of Tanzania in March 2005. In the subsequent months from June same year, a Memorandum of Understanding was signed by the Government of Malawi and Tanzania republic to support the Malawian Government profit more from the exchange visits they again signed a contract with the soft-Tec consultants in July 2005, to help in the carrying out of IFMIS implementation in Malawi (Nyambok, 2005).

According to the IMF 2005 working paper, the Tanzanian IFMIS seems to be the most positively implemented system in the public sector in an Anglophone African country. The background of a determined public sector finance management transformation started in 1994, Tanzanian republic implemented IFMIS in 10 ministerial departments and agencies 1998. The
Information Technology -solution chosen was a medium-sized accounting and management package, importantly less complex compared to the ones being used in Ghana. The roll-out strategic plan was grounded on an incremental methods and centered firstly on the Accountant Department and 10 pilot governmental Ministries. Once the consolidation phase was over, the system was set rolling to all 43 ministries and departments in the capital, then slowly with time to the entire central government and finally familiarized at the local level.

The implementation process of IFMIS in Ethiopia faced major challenges of infrastructure, resource, changes in government, capacity and dependency on foreign aid policies. So the transformation strategic plan gave priority to a practical consecutive approach grounded on the logic to guarantee that the “basics” are in place before changing to more complex systems. A strategic plan selection was created to implement the IFMIS process from the principle requirements which were described by the users, over an incremental and iterative method, with government employees broadly being involved. The transformation process of IFMIS first focused on bringing prevailing system up to date through backlog elimination, simplification and consecutive bureaucratic changes before the introduction of new systems.

2.4 IFMIS and Supply Chain Measures

IFMIS builds a structure in which the government agencies such as buyers can be able to hand the procurement of goods and services by checking on the catalogues publicized by contractors hence a one-stop Gateway for the public sector process of procurement (Chene & Hodess, 2009). The area and responsibility of an IFMIS however can vary from a basic general ledger accounting application to a comprehensive system covering budgeting, accounts receivable or payable, cash management, commitment control, debt, assets and
liability management, procurement and purchasing, revenue management, human resource management and payroll (Wainana, 2014). Its role is to connect, accumulate, process and then provide information to all parties in the budget system on a continuous basis. The features and requirements of the supply chain must be compatible to the available technology that is the software component architecture for the system to provide valid output (Giner et al., 2011).

The internal users are however very critical if the IFMIS was to succeed (Giner et al., 2011). This is attributed to the fact that the internal users may not be willing to adopt the new system due to the fear of the unknown or due to being so attached to using the old manual system thus changing would seem difficult. Thus they pose some resistance to the IFMIS implementation and this highly slows down the implementation process and it doesn’t attain its full potential in influencing procurement performance. Globally, governments are investing a great deal of resources to streamline and improve public supply chain management and are implementing new supply chain management systems that manage tenders through a website. This enhances accessibility of tenders, increasing efficiency and saving costs in the public sector and improving transparency in supply chain management services (Baily, 2008). It has in also been advocated to bring about efficiency, effectiveness, accountability, reduction in wastages and lead times in the procurement processes. Some stages in public procurement, such as the invitation, submission and evaluation stages are automated hence prompt response and fastening the procurement process. IFMIS works to manage suppliers, requisitions, quotations, contracts and receipts which have been moved online for a more cost efficient transaction.

Its main objective is to improve the efficiency and effectiveness of the processes, involved in management of public funds. The ultimate goal of IFMIS is to enhance the quality of public
service delivery by providing timely accurate information needed in financial accounting in the public sector. The components of the IFMIS as an automated process for procurement is the procure to pay (P2P) used in tendering, requisition and contract awarding which has led to a lot of effort being put in order to bring together all the existing SCM regulations and ministerial directives into a single plan (Diamond & Porkar, 2005).

To do away with ghost workers and the employees who abuse leave days in the government departments’ payroll system the implementation of the HR module will enable the management to monitor and supervise all the activities which go on in the public sector and also automate declarations by senior managers of their financial investments and assets. IFMIS will make easier control by the government of its services provisions, making the budget process to have a higher transparency level, accountability and accelerating the operations of the government (Peterson et al., 2008). Kiilu and Ngugi (2014) in the line of IFMIS adoption in the government systems argues that it has led to public fund effective management in the centralized operations of the National treasury. It has also boosted government processes automation, improved record keeping, financial reporting, faster communication, supply chain integration and government processes customization. According to Nzuve (2012), he confirms that aligning technical capability with IFMIS and SCM provides effective and efficient financial management transparency, standardized reporting system for financial management and accurate timely financial information.

Njonde and Kimanzi (2014) in their analysis of IFMIS performance in the public sector they investigated four variables financial reporting, budgeting, supply chain effectiveness, internal control of the existing implemented projects of the government. Their study concluded that the
IFMIS has been very much effective in internal control, supply chain effectiveness, budgeting and financial reporting on the implemented government projects with little challenges on internal control. Positive relationship between the independent variables (budgeting, internal control and financial reporting) and IFMIS effective performance in the public sector as revealed by the study. The report given by USAID (2008) IFMIS is a system that tracks and traces financial transactions and then give a summary of the information. Broadly IFMIS bring about the use of ICT in financial transactions to aid budget decisions, management responsibilities and financial report preparations and statements.

According to the government realm, IFMIS and SCM is associated directly with automation of PFM process right out of the preparation of the budget and effecting to the reporting with the support of the integrated system in the public sector financial management and other public institutions management. IFMIS is integrated with series of common database out of which all data with financial information flow. (Casals, 2004).

The government all over the world has been executing from 1990 technological barriers which are major so as to take advantage of the emerging ICT network. IFMIS system improves efficiency and effectiveness of the financial system by the computerization of the public sector financial information management. However the global outcome experiences with aligning technical capability with IFMIS and SCM including IMF and the World Bank have been diverse. Whereas some countries as represented in an E-transparency seminar organized by the Institute for Development and Policy Management Report (IDPM) in implementing IFMIS in their financial operations have not been successful in reducing and fighting corruption. (IDPM, 2013). The report also indicated that IFMIS has numerous sub-systems in planning, processing and
reporting public sector financial resources. The basic subsystems include cash management, budgeting, debt management, accounting and other interrelated major treasury systems.

According to Fred (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, Make (2007) states that the major challenges experienced by South Africa in aligning technical capability with IFMIS and SCM include lack of IT expertise in the functional departments, human resource challenges in implementing the ICT skills in IFMIS. This shortage is caused by the emigration of the country’s highly skilled personnel to developed countries and also joining the private sector from the public sector (Farelo & Morris, 2006). Additionally, according to Chene (2009), the successful alignment of IFMIS and SCM more so in developing countries is affected by inadequate experts in ICT and search for greener pastures by the professionals to developed countries, capacity building is also another major factor which affects IFMIS.

2.5 Conceptual Framework

The charter represents concepts which are put together so as to show the relationship between the research variables (Orodho & Kombo, 2002). The conceptual framework in figure 2.1 below shows the alignment of technical capability with integrated financial management information system and supply chain measures. Technical capability focuses on skilled manpower and experiences as the success of IFMIS implementation and directly influence the supply chain measures.
Figure 2.1 Conceptual Framework

Conceptual framework is a visual product or written product, which describes information clearly in a chart form showing the relationship among the variables (Miles and Huberman, 1994). Modern IFMIS as a variable on SCM is an important strategic instrument for exciting public sector performance, contribution of reimbursements of superior productivities and usefulness in government processes and improved communication, service delivery, coordination across organizational boundaries and levels of government, and better transparency and accountability in government operations. When Information communication technology systems are well implemented, institutions will benefit to save on costs, make high profits and eventually accountability and transparency among stakeholders. The greater impact of IFMIS on supply chain measures requires staff with the necessary knowledge in ICT and skills for effective implementation, operation and maintenance. It is important to have human resource professional training on their roles and responsibilities to all standards and regulations involved in the alignment of technical capability of IFMIS on supply chain measures.
The alignment of technical capability with IFMIS and SCM requires timeliness in the delivery of the products and services, controlled public financial management, integrity of the database for reduced corruption. The traceability in supply chain measures will have to involve communication with the suppliers and contractors of their services and products. When the goods are damaged or affected the system should be able to create an alert system that will see the goods returned to supplier for effective IFMIS performance in the public sector to ensure quality of service, accountability and efficiency. The skilled manpower and experienced workforce in ICT, procurement, public finance management and qualified accountants should be involved in the steering committees and in the alignment of technical capability with IFMIS and SCM to provide expertise in the management of the system.
CHAPTER THREE : RESEARCH METHODOLOGY

3.0 Introduction

The chapter highlights the research methodologies to be used for the study and assumed this outlined structure for the methodology: research design, population description, data collection methods, research procedures and data collection and analysis and methods.

3.1 Research Study Design

The study adopted a descriptive research design. According to Churchill (1991) descriptive research design was applicable since research describes certain group, does estimate of the proportion of persons who possess certain features, make comparisons and predictions. The research study aims at the collection of information from the respondents on IFMIS on SCM. Khan (1993) endorses descriptive survey design since it has the ability to yield statistical information which is beneficial to education researchers for policy making.

Descriptive research study designs helps in exploratory and preliminary readings to permit investigators to collect data, summarize, present and analyze data for purposes of clarification (Orodho, 2003). Mugenda and Mugenda (2003) states that the main reason for using descriptive research design is to determine, regulate and then give a report on how things are and assist in knowing the population under study its current status. The study design was selected because of its ability in ensuring bias minimization and maximization of collected evidence reliability.

3.2 Study Population

The study population consisted of five ministries under the National Government of Kenya, 30 respondents from selected ministries. These respondents were the Information
Technology officers, Accountants, finance officers and procurement officers in the Ministries.

### 3.3 Sample Design

The respondents from each ministry were picked randomly. To determine the sample size to be used, Yamani (1967) formula applied. Target population sample size to maxima margin error accepted is a function (sampling error) and expressed mathematically as:

\[
    n = \frac{N}{1 + Ne^2}
\]

\( e = \) maximum margin of error acceptable (5%), \( n = \) sample size, \( N = \) target population

Thus, in this research study, the desired population size for this study is 240 staff in the procurement, IT and Accounting and Finance department employed in the five ministries. The five ministries were chosen because they are the ones majorly take part in the technical alignment capability of IFMIS in the National Government of Kenya.

\[
    n = \frac{240}{1 + 240(0.05)^2} = 150
\]

The research will use a 5% margin of error; therefore, 150 respondents were targeted by the use of questionnaires. Statistically, for generality to happen, a minimum 30 of the total population must exist (Wiersma, 2005). The 30 respondents were derived from each of the five ministries namely; Foreign Affairs, ICT, Transport, Education and Treasury.

### 3.4 Data Collection

Primary data were collected from respondents using open ended questionnaire through a drop and pick later method. The results were available immediately after filling the questionnaire. The research study relied on the data collected from structured
questionnaire distributed to meet the study objectives. According to Orodho and Kombo (2002), the questionnaires are used to obtain significant data of population under study. Each respondent was approached and briefed on the way to fill in the questionnaire. Appropriate time frame will be allocated to the respondents. Questionnaires were used since they are financially affordable and not time consuming.

3.4 Reliability

Reliability is the trustworthiness, consistency and dependability of a test. Research instrument to be given is self-administered questionnaires. The items (questions) would sample same content. Pretesting of questions was done before the actual study for relevancy and appropriateness of the study. The scores were recorded for analysis. (Cohen, Manion & Morrison, 2007).

3.5 Data Analysis

The returned questionnaires were edited for totality and dependability to guarantee the data collected was valid, useable and consistent. The data collected was coded to check for errors and omissions (Kothari, 2004). Percentages and frequency tables will be used to present findings. Questionnaires responses were tabulated and processed by use of SPSS for data analysis. The analysis of data characterizes the process of obtaining information from the data collected and presenting them. To show the relationship between IFMIS and SCM at national government, the study conducted a multiple regression analysis.
The regression equation was as follows:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha \]

Where: \( Y \) is the dependent variable (IFMIS performance),

\( \beta_0 \) is the regression coefficient/constant/\( Y \)-intercept,

\( \beta_1, \beta_2, \beta_3 \) and \( \beta_4 \) are the slopes of the regression equation which are the sensitivity estimates of the variables, that is they represent the standard deviations of variables.

\( X_1 \) is the Timeliness

\( X_2 \) is the Reduced Corruption

\( X_3 \) is the Traceability

\( \alpha \) is the error term

Regression analyses were used to determine the relationship between technical capacity and IFMIS implementation elements to discover likely strengths and trend of relationships. The correlation coefficient is a measure of linear relationship between variables. In order to test significance of model in measuring the relationship between technical alignment of IFMIS and SCM in the national government in Kenya, significance was tested using the analysis of the variance (ANOVA), at 95% confidence,
CHAPTER FOUR : DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.0 Introduction

The purpose of this study was to investigate aligning technical capability with integrated financial management information system and supply chain measures in the Kenyan public sector. The objectives of the study were to determine how technical capability aligns with IFMIS and Supply Chain Measures in the Kenyan public sector; to establish the relationship between technical capability and IFMIS and Supply Chain Measures in the Kenyan Public sector and to investigate the impact of IFMIS on supply chain measures in the public sector. The chapter the study presents the analysis, presentation and interpretation of data obtained on the Aligning Technical Capability with IFMIS and SCM in the Kenyan Public Sector the case study of five National government ministries; Foreign Affairs, ICT, Transport, Education and Treasury.

4.1 Response Rate

The research study intended to have a collection of data from the 150 sample respondents out of a target population of 240 in relation to the Aligning Technical Capability with Integrated Financial Management Information System and Supply Chain Measures in the Kenyan Public Sector. Orodho, (2003) describes the rate of response as the level to which the concluding data groups comprises entirely sample participants and is designed as the total number of respondents with whom interviews are done over the overall number of respondents in the whole study sample population including non-respondents.
Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Frequency</th>
<th>Percent [%]</th>
<th>Valid Percent</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>120</td>
<td>80.0</td>
<td>80.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Not Returned</td>
<td>30</td>
<td>20.0</td>
<td>20.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author (2016)

From 120 respondents out of the sampled 150 respondents in the population completed the questionnaire leading to 80%. Kothari (2004) says that minimum of 30% of the sample population is good to generalize for the study outcome. The response rate basically proves a good readiness of the respondents to contribute in the study.

4.2 Demographic Distribution

The study involved the staff at the National Government Ministries comprising of procurement, finance, ICT and accountants since they are the ones conversant with the Aligning Technical Capability with Integrated Financial Management Information System and Supply Chain Measures.

4.2.1 Age Respondents

Table 4.2 Age Respondents

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percentage [%]</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>21-30</td>
<td>13</td>
<td>10.8</td>
<td>10.8</td>
</tr>
<tr>
<td>31-40</td>
<td>45</td>
<td>37.5</td>
<td>48.3</td>
</tr>
<tr>
<td>41-50</td>
<td>39</td>
<td>32.5</td>
<td>80.8</td>
</tr>
<tr>
<td>51-60</td>
<td>16</td>
<td>13.3</td>
<td>94.1</td>
</tr>
<tr>
<td>Over 61</td>
<td>7</td>
<td>5.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
In table 4.2 most respondents were aged between 31 - 40 years which is 37.5%, 32.5% aged between 41-50 years, 10.8 aged between 21-30 years, 13.3% showed that they were between 51-60 years old, while 5.9% were above 61 years old. The findings indicate majority of respondents were well distributed in terms of age and actively in productivity age hence can participate constructively in 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.

### 4.2.2 Gender Distribution

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent [%]</th>
<th>Valid Percent</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>71</td>
<td>59.2</td>
<td>59.2</td>
<td>59.2</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>40.8</td>
<td>40.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The study results showed that 59% of the respondents were male, while 41% were female employees. This shows that male respondents are more than female respondents though with less disparity meaning that there is gender balance among the employees in the government ministries. 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.
4.2.3 Academic Qualification

The research sought to find out the educational level of the employees at the ministries.

Table 4.4 Education Level

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>Percent [%]</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>14</td>
<td>11.7</td>
<td>11.7</td>
</tr>
<tr>
<td>Diploma</td>
<td>26</td>
<td>21.7</td>
<td>33.4</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>60</td>
<td>50.0</td>
<td>83.4</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>20</td>
<td>16.6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The study indicated that 50% had undergraduate degrees, 22% had acquired diplomas, while 17% had post graduate level and 11% had college certificate. Hazernberg (2012) associated the education level of project managers with findings that, higher levels of education offers knowledge and modern skills, and therefore helps in application to use learning capabilities enhancing project implementation and delivery. The findings therefore indicate that the respondents have the capacity, skills and management acumen to facilitate performance of technical alignment of IFMIS and SCM in the organization. These skills may help them handle and interpret their respective services and the emerging issues on technical alignment and performance of the IFMIS and SCM to the best level possible. The results further depicts that employees were academically qualified could dispense responsibilities professionally.
4.2.4 Duration of service

Table 4.5 Length of service

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>7</td>
<td>11.9</td>
<td>11.9</td>
<td>11.9</td>
</tr>
<tr>
<td>6-10</td>
<td>16</td>
<td>27.1</td>
<td>27.1</td>
<td>39.0</td>
</tr>
<tr>
<td>11-15</td>
<td>11</td>
<td>18.6</td>
<td>18.6</td>
<td>57.6</td>
</tr>
<tr>
<td>16-20</td>
<td>13</td>
<td>22.0</td>
<td>22.0</td>
<td>79.7</td>
</tr>
<tr>
<td>21-25</td>
<td>12</td>
<td>20.3</td>
<td>20.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

In Table 4.5 it shows that at least 88.1% (52) of the employees have worked for more than 6 years thus ability to provide a lot of useful information. This shows that the employees had functioned for a substantial period of time in the Government ministries and were thus conversant with IFMIS and SCM.

4.2.5 Departmental Response

The departmental response results were as follow shown in Table 4.6

Table 4.6 Departmental Response

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percent [%]</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>45</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Finance</td>
<td>20</td>
<td>16.7</td>
<td>54.2</td>
</tr>
<tr>
<td>Accounts</td>
<td>25</td>
<td>20.8</td>
<td>75.0</td>
</tr>
<tr>
<td>ICT</td>
<td>30</td>
<td>25.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
In table 4.6 showing the departmental response the study showed that 37.5% majority were from procurement, 25% were from ICT, accounts department were 20.8% and finance department were 16.7%. This indicates that respondents were drawn from all departments and had views expressed on technical alignment capability with IFMIS and SCM.

### 4.3 The Technical Alignment of IFMIS and SCM in the Public Sector Operations

The first objective of the study was to determine the Technical Alignment capability extent with IFMIS and SCM in the Ministries Operations.

**Table 4.7 The Technical Alignment of IFMIS and SCM**

<table>
<thead>
<tr>
<th>Extent</th>
<th>Frequency</th>
<th>Percentages [%]</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very great extent</td>
<td>18</td>
<td>15.0</td>
<td>15.0</td>
</tr>
<tr>
<td>To a great extent</td>
<td>20</td>
<td>16.7</td>
<td>31.7</td>
</tr>
<tr>
<td>To a moderate extent</td>
<td>72</td>
<td>60.0</td>
<td>91.7</td>
</tr>
<tr>
<td>To a little extent</td>
<td>10</td>
<td>8.3</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

In table 4.7, 60.0% of the respondents solidly indicated moderate extent that government ministries have implemented Technical Alignment of IFMIS and SCM, 16.7% showed great extent, 15.0% recapped a very great extent, and 8.3% indicated a little extent of Technical Alignment of IFMIS and SCM. They were further asked to show the extent in which aligning technical capability with Integrated Financial Management Information System [IFMIS] has affected Supply Chain Measures in the government ministry for each of the following technical alignment parameters? Rate on a scale of 1= no extent, 5= very large extent.
Table 4.8 Aligning technical capability with IFMIS and SCM

<table>
<thead>
<tr>
<th>Technical alignment Capability</th>
<th>Count</th>
<th>Mean response</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Commitment and dedication</td>
<td>120</td>
<td>3.0244</td>
<td>1.109</td>
</tr>
<tr>
<td>Skilled Manpower</td>
<td>120</td>
<td>3.4213</td>
<td>1.002</td>
</tr>
<tr>
<td>Experienced Workforce</td>
<td>120</td>
<td>3.0012</td>
<td>0.991</td>
</tr>
<tr>
<td>Implementation Strategy</td>
<td>120</td>
<td>3.1956</td>
<td>1.874</td>
</tr>
<tr>
<td>Employee Accountability</td>
<td>120</td>
<td>2.7690</td>
<td>0.871</td>
</tr>
</tbody>
</table>

Source: Author (2016)

Majority of the respondents reiterated that skilled manpower, implementation strategy, employee commitment and dedication affect the Technical Alignment capability with IFMIS on SCM in their ministries to a great extent depicting a mean of 3.4213, 3.1956 and 3.0244 respectively. However they reiterated that experienced workforce and employee accountability affect Technical alignment of IFMIS on SCM to a moderate extends in the Government ministries as shown by mean scores of 3.0012 and 2.7690 respectively. This shows that there are other factors which may also be playing a role in aligning technical capability with IFMIS and SCM.

4.4 Influence of aligning technical capability on the relationship between IFMIS and Supply Chain Measures.

The study sought to address Technical capability influence on the relationship between IFMIS and Supply Chain Measure which the government ministry experiences various challenges in the as shown in table 4.9.
Table 4.9: Alignment of technical capability influence on the relationship with IFMIS and SCM

<table>
<thead>
<tr>
<th>Alignment of Technical capability with IFMIS and SCM</th>
<th>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Structure</td>
<td>3.7533</td>
<td>1.1823</td>
</tr>
<tr>
<td>IT Expertise</td>
<td>3.6954</td>
<td>1.25435</td>
</tr>
<tr>
<td>Employee Cooperation abilities</td>
<td>3.5528</td>
<td>1.1843</td>
</tr>
<tr>
<td>Open relations services</td>
<td>3.5489</td>
<td>1.1812</td>
</tr>
<tr>
<td>Accounts managing expertise</td>
<td>3.5000</td>
<td>.5933</td>
</tr>
<tr>
<td>Public Relational skills</td>
<td>3.3714</td>
<td>.83703</td>
</tr>
<tr>
<td>Supply Chain Measures Legal Knowledge</td>
<td>2.7083</td>
<td>1.352</td>
</tr>
</tbody>
</table>

Source: Research Data (2016)

According to the results shown in Table 4.10, the government ministries experience relationship between IFMIS and Supply Chain Measure. Operational structure had a mean of 3.7533, IT expertise a mean of 3.6954, Employee cooperation activities showed a mean of 3.5528, Open relations services had 3.5489, Accounts managing expertise a mean of 3.5, public relations skills a mean of 3.3714 and supply chain measures legal knowledge a mean score of 2.7083.

The respondents were again asked to show their agreement on aligning technical capability with IFMIS and SCM. A scale of 1= strongly disagree and 5 = strongly agree.
Table 4.10: Agreement with statements on Technical alignment of IFMIS and SCM

<table>
<thead>
<tr>
<th>Technical alignment of IFMIS and SCM</th>
<th>Mean</th>
<th>Std dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced challenges due to centralized operations</td>
<td>3.0214</td>
<td>0.4965</td>
</tr>
<tr>
<td>Financial Capability needed for Technical alignment with IFMIS and SCM the ministry cannot afford</td>
<td>3.0672</td>
<td>1.3412</td>
</tr>
<tr>
<td>The technical alignment capability with IFMIS on SCM have failed since the objectives of the system are not well defined from the onset</td>
<td>3.0869</td>
<td>1.5901</td>
</tr>
<tr>
<td>The human resource training is required for the alignment of the system</td>
<td>3.1911</td>
<td>0.1562</td>
</tr>
<tr>
<td>Evident inadequate IT skills from the employees</td>
<td>3.2189</td>
<td>0.7812</td>
</tr>
<tr>
<td>The public sector needs to begin working with the common tools available for Technical alignment with IFMIS and SCM</td>
<td>3.2714</td>
<td>0.6782</td>
</tr>
<tr>
<td>Senior officers at the government lack shared IT skills which contribute to the poor technical alignment capability with IFMIS and SCM</td>
<td>3.4451</td>
<td>1.3521</td>
</tr>
<tr>
<td>There is no clear authority of who to align the system fully which lead to show technical alignment with IFMIS and SCM</td>
<td>3.4512</td>
<td>0.7812</td>
</tr>
<tr>
<td>Lack of exposure of the employees leading to slow technical alignment of IFMIS and SCM</td>
<td>3.5011</td>
<td>1.4378</td>
</tr>
<tr>
<td>The implementation of the public sector IT reforms are seen to be complex, intensive and risky which needs major bureaucratic changes</td>
<td>3.5028</td>
<td>0.1562</td>
</tr>
<tr>
<td>No shared IT vision among the senior management and the junior employees which leads to severe challenges in technical alignment capability with IFMIS and SCM</td>
<td>3.5 127</td>
<td>0.3918</td>
</tr>
</tbody>
</table>

Source: Research Data (2016)

Majority of the respondents agreed that No shared IT vision among the senior management and the junior employees which leads to severe challenges in technical alignment capability with IFMIS and SCM, The implementation of the public sector IT reforms are seen to be complex, intensive and risky which needs major bureaucratic changes, Lack of exposure of the employees leading to slow technical alignment of IFMIS and SCM, There is no clear authority of who to align the system fully which lead to show technical alignment with IFMIS and SCM, Senior officers at the government lack shared IT skills which contribute to the poor technical alignment capability with IFMIS and SCM with a mean of 3.5 127, 3.5028, 3.5011, 3.4512 and 3.4451
respectively. On the other hand Experienced challenges due to centralized operations, Financial Capability needed for Technical alignment with IFMIS and SCM the ministry cannot afford, The technical alignment capability with IFMIS on SCM have failed since the objectives of the system are not well defined from the onset, The human resource training is required for the alignment of the system, Evident inadequate IT skills from the employees, The public sector needs to begin working with the common tools available for Technical alignment with IFMIS and SCM with a mean of 3.0214, 3.0672, 3.0869, 3.1911, 3.2189 and 3.2714.

4.5 The impact of IFMIS on supply chain measures in the public sector.

The study sought to investigate the introduction of IFMIS and supply chain measures variables on timeliness, reduced corruption and traceability.

Table 4.11 Timeliness

<table>
<thead>
<tr>
<th>Timeliness</th>
<th>n</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely all systems supervision</td>
<td>120</td>
<td>3.1004</td>
<td>1.3491</td>
</tr>
<tr>
<td>Reduced costs</td>
<td>120</td>
<td>3.0040</td>
<td>1.1293</td>
</tr>
<tr>
<td>Reduced manual data entry</td>
<td>120</td>
<td>3.2236</td>
<td>1.0512</td>
</tr>
<tr>
<td>Improved visibility</td>
<td>120</td>
<td>3.0064</td>
<td>1.2149</td>
</tr>
</tbody>
</table>

In table 4.12 majority of respondents’ specified that IFMIS introduction has reduced manual data entry in line with the supply chain measures with a mean of 3.2236 followed by timely all systems supervision with a mean of 3.1004, improved visibility with a mean of 3.0064 and reduced costs with a mean of 3.0040.

32
Table 4.12 Reduced corruption

<table>
<thead>
<tr>
<th>Reduced corruption</th>
<th>n</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive public finance system</td>
<td>120</td>
<td>3.2142</td>
<td>1.3423</td>
</tr>
<tr>
<td>Accuracy of records</td>
<td>120</td>
<td>3.0341</td>
<td>1.6235</td>
</tr>
<tr>
<td>Integrity of database</td>
<td>120</td>
<td>3.1093</td>
<td>0.93453</td>
</tr>
<tr>
<td>Internal controls</td>
<td>120</td>
<td>3.0893</td>
<td>0.7219</td>
</tr>
<tr>
<td>Internal and External Audits</td>
<td>120</td>
<td>3.0032</td>
<td>0.9285</td>
</tr>
<tr>
<td>Reconciliation of bank, fiscal records</td>
<td>120</td>
<td>3.1489</td>
<td>0.9945</td>
</tr>
</tbody>
</table>

In table 4.14 it is shown that majority of the respondents depicted that IFMIS has brought comprehensive public finance system on the supply chain management with a mean of 3.2142 followed by reconciliation of banks statements and fiscal records while integrity of the database system with a mean of 3.1093, internal control with a mean of 3.0893, accuracy of records with a mean of 3.0341 and internal and external audit with a mean of 3.0032.

Table 4.13 Traceability

<table>
<thead>
<tr>
<th>Traceability</th>
<th>N</th>
<th>mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate with contractors</td>
<td>120</td>
<td>3.1614</td>
<td>0.9516</td>
</tr>
<tr>
<td>Create an alert system</td>
<td>120</td>
<td>3.1529</td>
<td>0.9729</td>
</tr>
<tr>
<td>Implement tracking system/software</td>
<td>120</td>
<td>3.1606</td>
<td>0.9610</td>
</tr>
<tr>
<td>Collaborate with suppliers</td>
<td>120</td>
<td>3.1131</td>
<td>0.9495</td>
</tr>
</tbody>
</table>
In table 4.14 the IFMIS system has helped in the communication with contractors with a mean of 3.1614 followed by implementing a tracking system/software with a mean of 3.1606, create an alert system with a mean of 3.1529 and collaborating with suppliers with a mean of 3.1131

4.6 Coefficient of Determination

The coefficient of determination was done to quantity by what means the statistical model was expected to forecast future outcomes. The coefficient of determination, \( r^2 \) is the square of the sample correlation coefficient between outcomes and predicted values. Coefficient of determination in the study will explain the variation of the three independent variables (Timeliness, Reduced Corruption, and Traceability) to the dependent variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>0.205</td>
<td>0.0420</td>
<td>0.041</td>
<td>0.648</td>
</tr>
<tr>
<td>Reduced Corruption</td>
<td>0.215</td>
<td>0.0462</td>
<td>0.024</td>
<td>0.791</td>
</tr>
<tr>
<td>Traceability</td>
<td>0.271</td>
<td>0.0734</td>
<td>0.053</td>
<td>0.583</td>
</tr>
</tbody>
</table>

In the table 4.12 traceability, reduced corruption and timeliness SCM the independent variable on the IFMIS performance had values of \( r \) squared 0.0734, 0.0462 and 0.0420 respectively. This shows that there was a positives relationship between the independent variables and the dependent variables.

The study again conducted a multiple regression so as to establish the relationship of the three independent variable (Timeliness, Reduced corruption and traceability) on the IFMIS performance.
Table 4.13: Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β0</td>
<td>Std. Error</td>
<td>Beta (β1, β2, β3)</td>
<td></td>
</tr>
<tr>
<td>Constant Term</td>
<td>3.817</td>
<td>.625</td>
<td>3.009</td>
<td>.000</td>
</tr>
<tr>
<td>Timeliness</td>
<td>0.190</td>
<td>.112</td>
<td>0.319</td>
<td>0.852</td>
</tr>
<tr>
<td>Reduced Corruption</td>
<td>0.271</td>
<td>.004</td>
<td>0.317</td>
<td>0.872</td>
</tr>
<tr>
<td>Traceability</td>
<td>0.429</td>
<td>.108</td>
<td>0.361</td>
<td>2.345</td>
</tr>
</tbody>
</table>

Source: Research Data (2016)

Predictors: (β0=Constant), X1=Timeliness, X2= Reduced Corruption and X3=Traceability and the dependent variable Y= IFMIS performance.

\( Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \) as the regression equation now becomes:

\[ Y = 3.817 + 0.319X_1 + 0.317X_2 + 0.361X_3 \]

In table 4.13 showing the regression model units in timeliness, reduced corruption and traceability will have a decline in IFMIS performance by 0.319, 0.317 and 0.361 respectively. From the results we can conclude that traceability contributes more to IFMIS performance succeeded by Timeliness then reduced corruption in the public sector.

Statistical significance level of p<0.05 shown by the variables (p=0.0021, P=0.0031 and P=0.0034). This indicates that the three variables as predictors are useful in predicting aligning of technical capability with IFMIS and SCM. In statistics, a significant level of p <0.05 is significant. This means that the three predictor variables are useful for predicting technical alignment of IFMIS and SCM.

The study again revealed the coefficient of the determination model for the variation of the predictor variables.
<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.788</td>
<td>.620</td>
<td>.691</td>
<td>.023</td>
</tr>
</tbody>
</table>

Source: Author (2016)

The significance value as shown in the table is 0.023 is statistically significant since it is less than 0.05 as the significance level. This shows that the SCM variables (Timeliness, reduced corruption and Traceability) are significant predictors in the IFMIS performance in the public sector. The relationship shows that good linear dependence between SCM and IFMIS performance. This suggests the three variables contribute to 62% from ($R^2$) values which was 0.62 and the other remaining factors 38% which contribute to the IFMIS performance.

Table 4.14: ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig or P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>56.916</td>
<td>3</td>
<td>18.972</td>
<td>46.1493</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>48.102</td>
<td>117</td>
<td>0.4111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>105.018</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The p value is 0.000 less than 0.05 as the significance level. This shows correlation existence between dependent and independent variables and how well the regression model fits the variables. The sum of the squares (SS) depicts the model fit to the regression model. The results show the F ratio of 46.1493 and the p value of 0.0000 depicts no much difference from the mean.

4.7 Discussion of the Finding

The study main aim was to investigate aligning technical capability with integrated financial management information system and supply chain measures in the Kenyan public sector. To a
moderate extent the five ministries under study have aligned technical capability with the IFMIS and SCM. The first objective was to determine how technical capability aligns with IFMIS and Supply Chain Measures in the Kenyan public sector. Majority of the respondents reiterated that skilled manpower, implementation strategy, employee commitment and dedication affect the Technical Alignment of IFMIS on SCM in their ministries to a great extent having a mean of 3.4213, 3.1956 and 3.0244 respectively. The respondents reiterated that experienced workforce and employee accountability affect Technical alignment of IFMIS on SCM to a moderate extends in the Government ministries as shown by mean scores of 3.0012 and 2.7690 in that order. This is a clear sign that the government has gone a great step in aligning technical capability with IFMIS and SCM in the public sector. The findings can be compared with those of Kimwele (2015) who concluded in his research that Government organizations are fast adopting IFMIS to enhance their supply chain performance. However, the attainment of the implementation alignment is hitherto to be achieved to a large extent.

The relationship between technical capability and IFMIS and Supply Chain Measures in the Kenyan Public sector as the second objective determined in the study where the majority of the respondents agreed that no shared IT vision among the senior management and the junior employees which leads to severe challenges in technical alignment capability with IFMIS and SCM. The implementation of the public sector IT reforms are seen to be complex, intensive and risky which needs major bureaucratic changes, Lack of exposure of the employees leading to slow technical alignment of IFMIS and SCM, There is no clear authority of who to align the system fully which lead to show technical alignment with IFMIS and SCM, Senior officers at the government lack shared IT skills which contribute to the poor technical alignment capability with IFMIS and SCM with a mean of 3.5 127, 3.5028,
3.5011, 3.4512 and 3.4451 respectively. On the other hand Experienced challenges due to centralized operations, Financial Capability needed for Technical alignment with IFMIS and SCM the ministry cannot afford, The technical alignment capability with IFMIS on SCM have failed since the objectives of the system are not well defined from the onset, The human resource training is required for the alignment of the system, Evident inadequate IT skills from the employees, The public sector needs to begin working with the common tools available for Technical alignment with IFMIS and SCM with a mean of 3.0214, 3.0672, 3.0869,3.1911,3.2189 and 3.2714. According to Charles (2014) argues the most significant part of IFMIS recognition is commitment of the management, therefore the entire management should effectively assess the current institutional conditions, allocate the appropriate budget for aligning technical capability with IFMIS and SCM and advice according to the other staff for the IFMIS to be fully implemented.

The third objective was to investigate the impact of IFMIS on supply chain measures in the public sector. Most of the respondents indicated that IFMIS introduction has reduced manual data entry in line with the supply chain measures with a mean of 3.2236 followed by timely all systems supervision with a mean of 3.1004, improved visibility with a mean of 3.0064 and reduced costs with a mean of 3.0040. In reduced corruption on supply chain measures majority of the respondents depicted that IFMIS has brought comprehensive public finance system on the supply chain management with a mean of 3.2142 followed by reconciliation of banks statements and fiscal records while integrity of the database system with a mean of 3.1093, internal control with a mean of 3.0893, accuracy of records with a mean of 3.0341 and internal and external audit with a mean of 3.0032.
In traceability IFMIS system has helped in the communication with contractors with a mean of 3.1614 followed by implementing a tracking system/software with a mean of 3.1606, create an alert system with a mean of 3.1529 and collaborating with suppliers with a mean of 3.1131. These results of the study in comparison with those of Mutui (2014) who concluded that impact performance of IFMIS was improving on supply chain management since employees had sufficient knowledge to not only be able to use the IFMIS but to also to maximize the output and efficiency of the information systems.

The study revealed that traceability, reduced corruption and timeliness SCM the independent variable on the IFMIS performance had values of r squared 0.0734, 0.0462 and 0.0420 respectively. This shows that there was a poitves relationship between the independent variables and the dependent variables. The study conducted multiple the regression model units in timeliness, reduced corruption and traceability and found out that there will be a decline in IFMIS performance by 0.319, 0.317 and 0.361 respectively. From the results we can conclude that traceability contributes more to IFMIS performance succeeded by Timeliness then reduced corruption in the public sector.

Statistical significance level of p<0.05 shown by the variables (p=0.0021, P=0.0031 and P=0.0034). This indicates that the three variables as predictors are useful in predicting aligning of technical capability with IFMIS and SCM.

P=.0034). In statistics, a significant level of p <0.05 is significant. This means that the three predictor variables are useful for predicting technical alignment of IFMIS and SCM.

The significance value as shown in the table is 0.023 is statistically significant since it is less than 0.05 as the significance level. This shows that the SCM variables (Timeliness, reduced
corruption and Traceability) are significant predictors in the IFMIS performance in the public sector. The relationship shows that good linear dependence between SCM and IFMIS performance. This suggests the three variables contribute to 62% from \( R^2 \) values which were 0.62 and the other remaining factors 38% which contribute to the IFMIS performance. The findings concur to those of Sababu (2001) who found that adoption of information systems increased organizational effectiveness and efficiency and ability of the organization to deliver goods and/or services.

This means that the three predictor variables are useful for predicting technical alignment of IFMIS and SCM. The regression \( Y = 3.817 + 0.319X_1 + 0.317X_2 + 0.361X_3 \) The findings concur with those of Wainaina (2014) and Kamotho (2014) who recognized that incorporation of IFMIS in directing supply chain measures highly heightened its performance. In the analysis of variance the p value is 0.000 less than 0.05 as the significance level. This shows correlation existence between dependent and independent variables and how well the regression model fits the variables. The sum of the squares (SS) depicts the model fit to the regression model. The results show the F ratio of 46.1493 and the p value of 0.0000 depicts no much difference from the mean.

CHAPTER FIVE : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
5.1 Introduction

The main of the study was to investigate aligning technical capability IFMIS and Supply Chain measures in the Kenyan public sector. The chapter presents the summary conclusion and the recommendations.

5.2 Summary

The study found that there has been a moderate level of aligning technical capability with Integrated Financial Management Information System [IFMIS] and Supply Chain measures in the Kenyan public sector. From the study, Timeliness, Reduced Corruption and Traceability affect aligning technical capability with Integrated Financial Management Information System [IFMIS] and Supply Chain measures in the Kenyan public sector to great extents. Bartel (2006) states that IFMIS offers integrated computerized financial package to boost the efficiency and effectiveness of resource management in the public sector through automating the management of the budget and accounting system.

The study revealed that technical alignment capability with IFMIS has a direct impact on the overall supply chain measures in the government ministries to a great extent. Timeliness, affect the IFMIS performance of the Government ministries to a little extents, whereas Reduced Corruption and Traceability affect the IFMIS performance of the ministries to moderate extents. The study further showed that aligning technical capability with IFMIS affects supply chain measures effectiveness, efficiency, functionality and cost savings to great extents while it leads to increased quality to a moderate extent. The findings of the study concurs with Otley (2001) who suggested that executive administration in every organization must also know the existing business principles and acquire to work within or change its parameters. Additionally, the most significant step when effecting a policy is the worker’s commitment to the policy direction itself.
The study revealed that no shared IT vision among the senior management and the junior employees which leads to severe challenges in technical alignment capability with IFMIS and SCM. The implementation of the public sector IT reforms are seen to be complex, intensive and risky which needs major bureaucratic changes. Lack of exposure of the employees leading to slow technical alignment of IFMIS and SCM, There is no clear authority of who to align the system fully which lead to show technical alignment with IFMIS and SCM, Senior officers at the government lack shared IT skills which contribute to the poor technical alignment capability with IFMIS and SCM. On the other hand Experienced challenges due to centralized operations, Financial Capability needed for Technical alignment with IFMIS and SCM the ministry cannot afford, The technical alignment capability with IFMIS on SCM have failed since the objectives of the system are not well defined from the onset, The human resource training is required for the alignment of the system, Evident inadequate IT skills from the employees. The public sector needs to begin working with the common tools available for Technical alignment with IFMIS and SCM. Looking at the review of the literature available, there exist high risks in technical alignment capability with IFMIS and SCM besides 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. According to Subramanian & Shaw (2002) he states that comprehending technological advances in its fullest potential is a challenge in the area of supply chain measures.

5.3 Conclusions
In conclusion, moderate level of aligning technical capability with IFMIS and SCM is being realized in the public sector. Supply chain measures adopted are effective in traceability, reduced corruption in implementing IFMIS. Through observing timeliness the employees should be the right people equipped with current ICT skills to handle internal and external supply chain process, management of labor and inventory management. If the alignment of technical capability is done this will avoid delays and boost clients’ satisfaction. Reduced corruption will be experienced if alignment of technical capability with IFMIS and SCM is done to a large extent which will avoid waste of public resources, final accounts preparation, enhanced control of the government budget and automated tax custom system for the suppliers and contractors.

The impact of the aligning technical capability with IFMIS and SCM will integrate traceability in recording movement and transformation of goods and services from the stores to warehouses. It will assist proper communication with clients and inform them of the delivery of the products. Traceability in SCM will improve effective performance of IFMIS in developing alert system to prevent sales of spoilt products.

The public sector management of financial current practices is beneficial for successful alignment of technical capability with IFMIS and SCM which plays a critical role in public finances control, improving transparency and accountability leading to reduced corruption.

The public sector has experienced aligning technical capability with IFMIS and SCM in these areas Operational structure, ICT expertise, Employee cooperation activities, Open relations services to the public by the ministries, Accounts managing expertise, public relations skills and supply chain measures legal knowledge.
These outcomes have indicated that more effort needs to be put by the government and the stakeholders to ensure a greater extent of aligning technical capability with IFMIS and SCM in the public sector. Alignment will achieve the intended functionality of IFMIS and Impact on the government budget management system which was initially expected with the system.

No shared IT vision among the senior management and the junior employees which leads to severe challenges in technical alignment capability with IFMIS and SCM, Lack of exposure of the employees leading to slow technical alignment of IFMIS and SCM and The implementation of the public sector IT reforms are seen to be complex, intensive and risky which needs major bureaucratic changes pose a serious risk for aligning technical capability with IFMIS and SCM successfully.

5.4 Recommendations

From the findings, the study recommends a review by government on all unreasonable legislations in relation to SCM and IFMIS to be accessible by anyone interested.

This encourages participation by the concerned public effectively in the process of IFMIS and SCM decision making that will promote positive performance. Any malpractice or irregularity observed against PPOA act by the public should be reported and disciplinary action taken like repossessing the assets and stricter penalties including being jailed.

The study also recommend that the IFMIS be designed in a way that it contains all monetary operation within the public sector to improve record keeping, lessen waste for planning and decreasing corruption. The ICT connectivity to all public sector institutions involving both National and County governments to make the IFMIS have a national face not associated with only Nairobi as the head quarter of all government ministries.
There should be a change agent employed by the government to supervise the alignment of technical capability with IFMIS and SCM in the Kenyan public sector and users to undergo training to boost their skills and expertise in using the system. Manual input of information should be done away with in the public sector since it creates environment for manipulations leading to corruption in the government supply chain measures operations.

5.5 Limitations of the Study

The study investigated three independent variables assumed to have major influence on technical alignment capability with IFMIS and SCM. Furthermore, factors which also has influence on the system effectiveness to the five Government Ministries that are based at the Headquarters, Nairobi City County. However, IFMIS application has also been rolled out to other departments in the field offices outside Nairobi -though at a lesser extent.

The Researcher used stratified sampling to choose a sample of 120 senior Ministry officials to obtain data from and generalize the findings as representing the whole population. This sample may not be fully representative of the population since more accountants than finance and procurement officers were selected. When this research was on -going, Treasury started re-engineering the same system (IFMIS) to improve some of its modules. Therefore, the findings/conclusions made by the researcher could already be resolved by the re-engineering process or even other factors may become significant. The researcher relied on secondary data obtained from Government publications for the period between 2005 to 2015. This data was used answer and make conclusions regarding the first research objective. Some of this data may not be valid since newer developments could have occurred especially since information technology is so dynamic.

5.6 Suggestions for Further Study
The focus of this study was National Government Ministries on the technical alignment of IFMIS and SCM, further research should be considered in other areas of public sector institutions so as to give an overview of the alignment of technical capability with IFMIS and SCM. Further studies can also investigate the factors which affect the adoption of the IFMIS and SCM like in procure to pay, reengineering modules, revenue to cash and plan to budget among the public sector in Kenya as a way to gather information for general recommendation guideline for policy making.

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Ministry of Water and Irrigation, Kenya


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Appendix I Questionnaire

Appendix I: Research Questionnaire

PART A: GENERAL INFORMATION

1. What is your gender?
   Male [ ]  Female [ ]

2. Indicate your age category:
   Below 20 years [ ]  41-50 years [ ]
   21-30 years [ ]  Above 51 years [ ]
   31-40 years [ ]

3. What is your highest level of education?
   Post Graduate [ ]  Diploma [ ]
   Graduate [ ]  Certificate [ ]
   Any other (specify) …………………………………………………… [ ]

4. Years of service/working period in the Ministry/public sector department (Tick as applicable)
   Less than 1 year [ ]  6-10 years [ ]
   1-5 years [ ]  Over 10 years [ ]

5. Indicate your Department
   Procurement [ ]  Finance [ ]
   ICT [ ]  Other (Specify……………….) [ ]

6. Please indicate your designation
   Procurement manager/head [ ]  Finance manager/head [ ]
   ICT manager/head [ ]  Others (Specify……………….) [ ]
PART B: EXTENT TO WHICH THE TECHNICAL ALIGNMENT OF IFMIS ON SCM HAVE IMPACTED MINISTRY OPERATIONS.
7. How would you rate the extent of IFMIS and SCM impact in this Government Ministry?
Rate on a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate, 4= large extent and 5 is to a very large extent

<table>
<thead>
<tr>
<th>To a very great extent</th>
<th>To a great extent</th>
<th>To a moderate extent</th>
<th>To a little extent</th>
<th>To no extent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. What impact does aligning technical capability with Integrated Financial Management Information System [IFMIS] affect Supply Chain Measures in the Kenyan public sector? in this Ministry? Rate on a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate, 4= large extent and 5 is to a very large extent.

<table>
<thead>
<tr>
<th>The Technical alignment Capability of IFMIS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training/capacity building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governance system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentives structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal framework in place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (Specify..................................)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART C: RELATIONSHIP BETWEEN IFMIS AND SUPPLY CHAIN MEASURE

9. How has the technical alignment impacted Integrated Financial Management Information System (IFMIS) on Supply Chain measures in the public sector.

<table>
<thead>
<tr>
<th>IFMIS Skills and knowledge areas</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiation skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Framework contracting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>legal knowledge in procurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication and Interpersonal skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Records management skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiency in IT applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public relations skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (specify…………………………)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. What is your level of agreement with the following statements that relate to the relationship of Integrated Financial Management Information System and Supply Chain Measurement Systems in the Ministry? Use a scale of 1-5 where 1 = strongly disagree and 5 = strongly agree.

<table>
<thead>
<tr>
<th>Relationship Factors of IFMIS and SCM</th>
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<th>2</th>
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<tr>
<td>I.T reforms are perceived as complex, risky, resource intensive and requiring major procedural changes, often involving high-level officials lacking incentives for reform.</td>
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<td>Many IFMIS projects have also failed due to the lack of clarity in ownership of the system and unclear authority to implement.</td>
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<tr>
<td>Implementing IFMIS requires that many government structures start working with common tools for SCM</td>
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<tr>
<td>There are challenges due to centralized treasury operations</td>
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<tr>
<td>IFMIS implementation requires major costs and resource implications that the ministry can hardly meet</td>
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<tr>
<td>There is lack of staff with required IT-knowledge at the ministry for the IFMIS implementation</td>
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<tr>
<td>Poor implementation is due to lack of a change management expert, IT-system experts and logistic experts.</td>
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<tr>
<td>Capacity building and training need to be scoped out during the needs assessment process.</td>
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<td>Lack of shared understanding between senior officers about an IT innovation and its contributions to organizational competitive advantage contributes to the most severe problems in IFMIS implementation and SCM</td>
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<tr>
<td>Others (Specify............................................................................)</td>
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PART D: IMPACT OF IFMIS ON SUPPLY CHAIN MEASURE

11. What is impact of Integrated Financial Management Information System (IFMIS) on supply chain measures in the public sector? Use a scale of 1-5 where 1 = strongly disagree and 5 = strongly agree.
<table>
<thead>
<tr>
<th><strong>Timeliness</strong></th>
<th>1</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>Timely all systems supervision</td>
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<td>Reduced costs</td>
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<td>Reduced manual data entry</td>
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<td>Improved visibility</td>
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<td><strong>Reduced corruption</strong></td>
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<td>Comprehensive public finance system</td>
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<td>Accuracy of records</td>
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<td>Integrity of database</td>
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<td>Internal controls</td>
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<tr>
<td>Internal and External Audits</td>
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<tr>
<td>Reconciliation of bank, fiscal records</td>
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<td><strong>Traceability</strong></td>
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<tr>
<td>Communicate with contractors</td>
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<td>Create an alert system</td>
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<td>Implement tracking system/software</td>
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<td>Collaborate with suppliers</td>
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</table>

12. Give any other information that you would like to share about the aligning of technical capability on IFMIS and its role on the supply chain measure in the public investor.

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THANK YOU!
Appendix II: List of Government Ministries

1. Interior and Coordination of National Government
2. Devolution and Planning
3. Foreign Affairs
4. Defense Ministry
5. Education, Science & Technology
6. The National Treasury
7. Health Ministry
8. Transport & Infrastructure
9. Environment, Water & Natural Resources
10. Land, Housing & Urban Development
11. Information, Communication & Technology (ICT)
12. Sports, Culture and the Arts
13. Labour, Social Security and Services
14. Energy & Petroleum
15. Agriculture, Livestock & Fisheries
16. Industrialization & Enterprise Development
17. East African Affairs, Commerce & Tourism
18. Mining Ministry