CRITICAL SUCCESS FACTORS IN THE IMPLEMENTATION OF THE RE-ENGINEERED INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IN GOVERNMENT MINISTRIES, KENYA

BY

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DECLARATION

This research proposal is my original work and has not been presented to any other institution for the award of academic certificate.

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DEDICATION

This project is dedicated to God and my dear parents Mr. and Mrs. Sigei for their unconditional love and unwavering support.

ABSTRACT

The government of Kenya through the Ministry of National treasury set to carry out Public Financial Management (PFM) reforms with the development of the Integrated Financial Management Information System (IFMIS) in 1998 and its subsequent deployment to line ministries in 2003. The system faced a number of challenges prompting for its re-engineering which was started in 2011 as one of the ways of overcoming those challenges and to create a financial information system that was integrated, efficient and reliable. The purpose of this study was to investigate the critical success factors in the implementation of the re-engineered IFMIS in government ministries in Kenya. The researcher used survey research design. Stratified sampling technique was used to divide the population into three strata: finance officers, ICT officers and Key system users and obtained a sample size of 54. The study collected primary data through the use of a questionnaire. The study established the following 9 group of factors as being critical in the implementation of the re-engineered IFMIS: user involvement in the process and clear procedures for recruitment and risk management; proper management of resources; top level management support; good communication strategies among stakeholders, team spirit and good support teams, skilled team; clear and properly set goals and objectives; appropriate infrastructure; set timelines for capacity building and achievement of goals and objectives; and involvement of competent firms in the project. In addition, co-operation among departments, the availability of experts, adequate learning materials and adequate pre-testing of the system were found to have contributed to the success of the implementation.

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LIST OF ABBREVIATIONS

BPR	Business Process Reengineering
DC	Developing Countries
DOI	Diffusion of Innovation Model
FMIS	Financial Management Information System
IFMIS	Integrated Financial Management System
IS	Information Systems
LM	Line Ministries
MDA	Ministries, Agencies and Departments
MOF	Ministry of Finance
PEM	Public Expenditure Management

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Successful implementation of information systems (IS) projects is of critical importance to the prosperity and even survival of modern organizations (Umble et al, 2003). This is because effective use of IS usually leads to significant improvements in organizational productivity (Mandal and Gunasekaran, 2003) and often provides organizations with crucial competitive advantages (Poon and Wagner, 2000).

Diamond and Khemani (2005) observed that in the mid-nineties, most developing countries (DCs) either had manual or very old and inefficiently maintained software applications to handle and support their budget execution and accounting processes. This negatively affected the operation of their public expenditure management (PEM) systems as well as their budget management due to lack of reliable and timely data about revenue and expenditure. Therefore this has led to a large accumulation of arrears due to poor control measures in commitment of government resources, unnecessary borrowing which pushes up interest rates and crowds out private-sector investment; and a decline in effectiveness and efficiency of service delivery due to misallocation of resources(Diamond and Khemani, 2005).

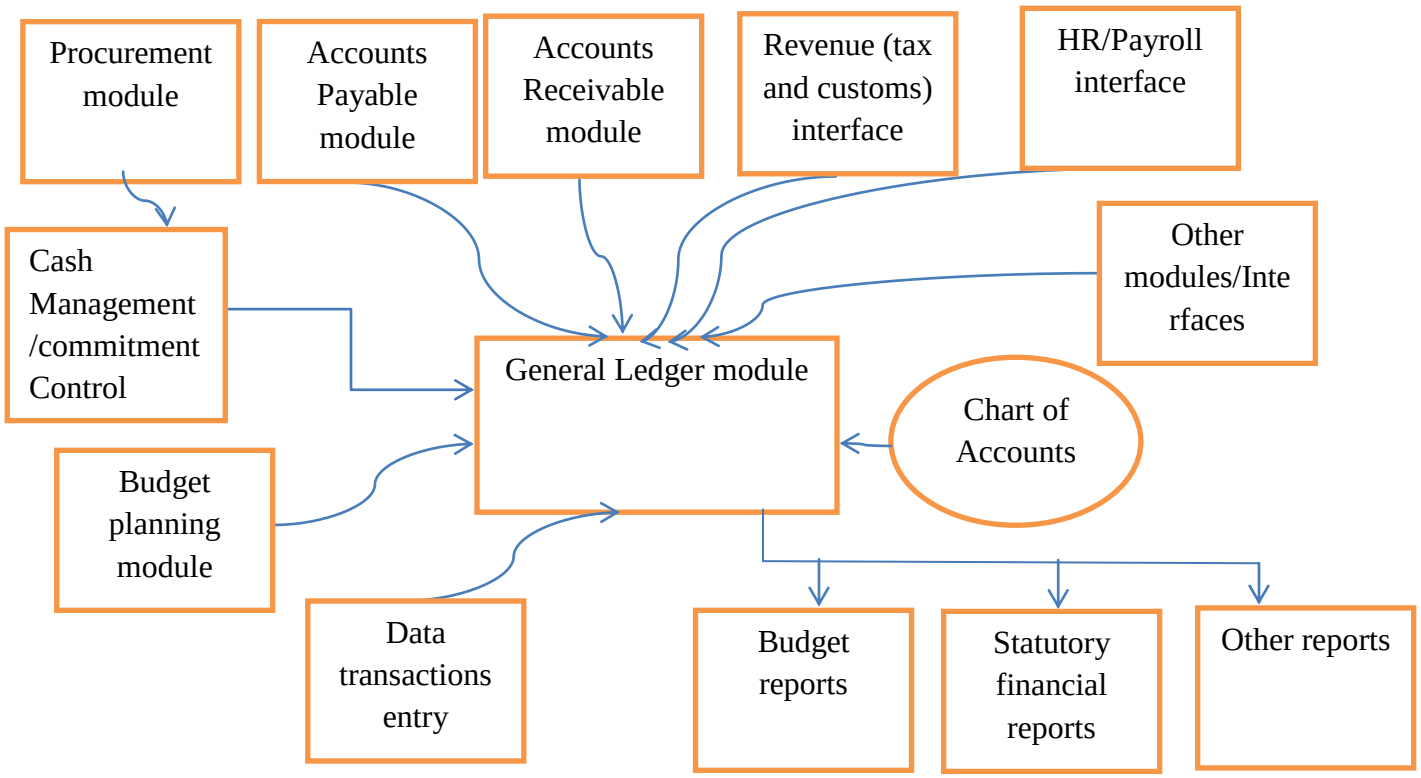
Additionally, it was tough for governments to be accountable to their stakeholders through providing accurate, complete and transparent accounts of their financial situation. This hindered transparency and accountability in government operations and eventually contributed to governance problems in many of these countries. In a bid to strengthen their PEM systems, many DCs pushed for or obliged to embrace financial management information systems(FMIS) adoption(Diamond and Khemani, 2005).The creation of a FMIS became a benchmark for a country's budget reform plan and was often regarded as a precondition for achieving effective management of the budgetary resources.

The benefits from the successful implementation of a FMIS are insightful although it would not be a solution for poor financial management. DFID (2003) discusses some of the benefits

as: firstly, improved recording and processing of government financial transactions allow prompt and efficient access to reliable financial data hence support enhanced transparency and accountability of the executive to stakeholders. Secondly, availability of a complete and updated representation of representation of revenue and expenditure as a result of strong financial controls provides an all-inclusive picture of budget execution. Lastly, the system provides comprehensive financial information which aids in better economic forecasting, planning, budgeting and budgetary control.

Integrated Financial Management information System (IFMIS) in government according to USAID practical guide (2008) refers to automation of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for financial management of line ministries and spending agencies and other public sector operations. Figure 1 illustrates the components of IFMIS.

Figure 1: Components of a typical IFMIS



Source: USAID practical guide (2008)

Many organizations have procured Enterprise Resource Planning (ERP) systems and it is obvious these implementations are demanding therefore success is not guaranteed (Esteves de Sousa, n.d). IFMIS being a type of ERP system does not have its implementation being as easy. According to Wong and Tein (1987), the future of successful ERP implementation does not rely on further improvements of technology but on bringing people and business up to speed on the appropriate use of ERP technology to fit their defined business needs and objectives. Therefore the identification of Critical Success Factors of an ERP implementation is paramount to ensure project success. Critical Success Factors are defined by Bruno and Leidecker (1984) as "those characteristics, conditions or variables that, when properly sustained, maintained or managed, can have a significant impact on the success of a firm competing in a particular industry".

IFMIS implementations experience many challenges. Hendricks (2012) found that lack of commitment, lack of capacity, institutional and technical challenges were risk factors to successful implementation. In addition, USAID practical guide (2008) identified challenges which were common to IFMIS around the world, these include: inadequate planning; poor communications between implementers, donors and government; shortage of management capacity and resources; changes in systems design documents without full agreement; poorly implemented trainings and unnecessary and spurious project expenditures

Various researchers have pointed out several factors as being critical in IFMIS implementation. Wong and Tein (1987) established that top management commitment and support; business process engineering, use of project management to manage implementation, change management culture and program; business plan and vision as some of the critical success factors in any ERP implementation. IFMIS is a type of ERP which focuses on finance modules. The success factors in any ERP implementation process are also applicable to IFMIS implementation.

1.1.2 IFMIS implementation in Kenya

The constitution of Kenya, Cap VII Sections 99-103 gives the National Treasury the mandate for proper budgetary and expenditure management of government financial resources.

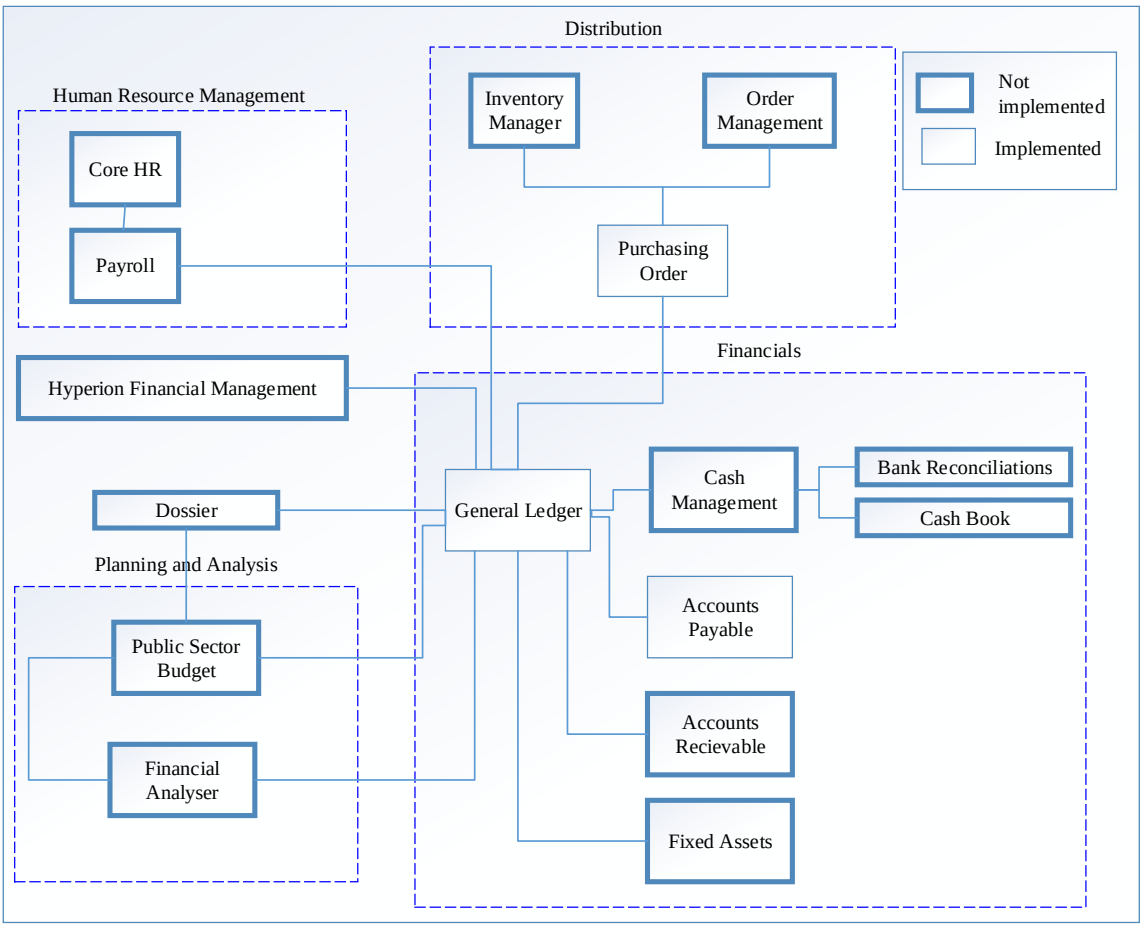
The Ministry's main function concerns the formulation of financial and economic policies that will create an enabling environment for all sectors of the economy to function effectively and efficiently (National Treasury, 2012). Therefore the Ministry takes the responsibility of initiating and guiding the financial operations of all government ministries and departments.

The National Treasury created IFMIS as a department within it to support the automation of budgetary and financial transactions. In accordance with the new constitution (Article 26) and the Public Finance Management (PFM) Act, the Ministry has connected Ministries, Agencies and Departments (MDAs) and all the 47 county governments to IFMIS.

The IFMIS in Kenya was developed by the National Treasury in 1998 while deployment of the system to line ministries started taking place in 2003. The system was Enterprise Resource Planning (ERP) software based on Oracle. Enterprise Resource Planning software is an organization-wide application that integrates its operations through a centralized database which is accessed using a secure network. However, various changes were made to fit the system to the government processes. The National Treasury implemented an Integrated Financial Management Information System (IFMIS) as part of its Public Financial Management (PFM) reforms. This was to ensure the government managed public resources in the most efficient, effective and transparent manner. A fully functioning IFMIS can lead to improved governance by providing real-time financial information that managers can use to administer programs effectively, formulate budgets and manage resources (Muigai, 2012).

In the year 2011, The Ministry of Finance embarked on a re-engineering process that sort to alter the IFMIS from the modular approach where separately implemented modules were loosely linked to the General Ledger to a full cycle end-to-end integrated approach. This was due to the challenges that were experienced in its initial implementation. The IFMIS that was in use was limited to only three modules: the General Ledger (GL), purchasing(PO) and Accounts Payable (AP) modules which had technical limitations with functionalities that were not sufficiently interlinked and manual processes were still relied on to a great extent (IFMIS Strategic Plan, 2011-2013). Figure 1 shows the modules that were implemented and those that were not implemented before the re-engineering process began.

Figure 2: Expected modules of IFMIS and what was initially implemented.



Source: IFMIS Re-engineering Strategic plan 2011- 2013.

According to the IFMIS Strategic plan 2011-2013, the re-engineering process focused on automation of three high-level processes: the budget process, the exchequer process and the payment process. Budget planning, the process through which government formulates budgets for the coming fiscal year, was not fully integrated with IFMIS in the initial implementation. Therefore the re-engineering aimed to provide a real-time linkage between the budget planning application and IFMIS. The exchequer process involves the function of distributing available funds to ministries in accordance with their budget plans and cash-flow forecasts. With the initial IFMIS implementation, no tools were available to manage release of funds and manual upload of individual figures had to be done by the IFMIS department. The re-

engineering module introduced the cash management module which provided the exchequer unit with key functionalities and information which would assist in managing exchequer releases and ensure better management of ministry accounts. The payment process represents the government's expenditure approval process. Most of the processes are executed manually which prompted the need for re-engineering in order to automate them.

The IFMIS components introduced in the re-engineering process include: Re-engineering for business results component which looks to adjust existing business processes in organizations for improved financial management. The plan to budget component introduces a fully integrated budgeting process which includes budget planning, policy objectives and budget allocation. The Procure to pay component automates the procurement process from requisitions, tendering, and contract award to payment. The Revenue to cash component which involves management and control of actual and forecasted cash inflows and outflows seeks to auto-reconciliation of revenue and payment and use of Electronic Fund Transfer (EFT) to make payments.

The records to report provides a structure for effectively recording transactional data from all processes, processing that data right through to the production of regulatory, financial and management reports. This would provide up to date information on the financial position of the government and statutory reports produced real time. ICT to support provides support functions for software, hardware and infrastructure. Communicate to change focuses on aspects of change management, capacity enhancements as well as information generation and dispersion, education and effective communication among IFMIS stakeholders (IFMIS Strategic Plan 2011-2013).

1.2 Statement of the Problem

Implementation of an information system projects successfully is not easy for any organization. This is because the implementation process often leads to significant organizational changes and may result in fundamental reorganization of the business processes (Boddy and Macbeth, 2000).

According to Mburu (2008), there is a high failure rate of ERP systems implementations in organizations and therefore the focus and awareness should be on what factors will be critical for successful implementation of such systems. Nyagah (2006) identified the following factors as critical for successful implementation of an ERP system in Kenya: a cross-functional team (implementer, vendor, consultant), a change management program and culture; top management support, a business plan and vision; effective coordination and communication between the implementation partners, partnership and team spirit; user training, education and support; project management skills, software development skills; Business Process Reengineering (BPR) and slight customization; project champion, monitoring and evaluation of performance, testing and troubleshooting; appropriate business and IT legacy systems. These measures can be adopted during an IFMIS implementation to increase the probability of success in the process.

Muigai (2012) in his study of Government ministries in Kenya found that IFMIS has significantly contributed to improvement in financial management in Kenya. This improvement from using the system can only be realized if the implementation process is successful. Factors such as effective training of technical staff and end users; minimal resistance to change as a result of staff being sensitized on the need for the new system; a core team appointed to oversee the IFMIS implementation process, fully committed senior management, availability of funding by treasury, a standard chart of accounts, availability of ICT infrastructure and a legal and regulatory framework were factors that contributed to successful implementation (Mugambi, 2011). However, there are challenges that came with the implementation and use of the system. Lack of top management support, training and hurried implementation were some of the challenges faced in the implementation and use of the IFMIS in Government ministries (Kimwele, 2011). The re-engineering process focused on overcoming these challenges and added more modules to the system which would be sufficiently interlinked to make the system more reliable and useful.

With the operationalization of the re-engineered IFMIS in Kenya's government ministries, the government has completed the process of rolling out IFMIS to county governments. The roll out and support processes can be successful if it draws from the lessons of previous

implementations of IFMIS in government. This study seeks to investigate the critical factors that led to the successful implementation of the re-engineered IFMIS in Kenya's government ministries. As a result, the following research question will guide this study: What are the factors that are critical in the successful implementation of re-engineered Integrated Financial Information Management Systems?

1.3 Objectives of the Study

To determine the Critical Success Factors in implementation of the re-engineered Integrated Financial Management Information System (IFMIS) in Kenya

1.4 Value of the Study

The findings of the study are important to the following groups:

Government policy makers will find the study useful in identifying the shortcomings of the implementation procedures they used. This will guide the ongoing re-engineering processes to be more effective and efficient. In addition, government policy makers may use the research findings in the formulation and enforcement of effective implementation regulations and procedures. With the implementation of IFMIS in the counties, the findings will be used to guide any future re-engineering activities. The research will guide future implementation of Information Technology (IT) applications in Kenya.

The general public and stakeholders need to build confidence in the procedures set up by government departments and line ministries in carrying out projects. The research findings will help them to understand what procedures the government puts in place. The findings will also be an eye opener; to the policy makers so that they involve the stakeholders in the tasks forces while reviewing government projects because that impacts heavily on service delivery to the public. Finally, academic researchers may need the study findings to stimulate further research in this area of integrated financial systems in other government agencies and as such form a basis of good background to further research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Integrated Financial Management Information System

In government operations, IFMIS refers to the computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for the purpose of financial management (Lianzuala & Khawlhring 2008). According to Diamond and Khemani (2006) and Chene (2009), a well-designed Integrated Financial Management Information System (IFMIS) is a management tool that provides a wide range of non-financial and financial information. Bhatia (2003) defines IFMIS as an information system that integrates budget preparation, budget execution, accounting, financial management and reporting activities for effective financial management.

Integrated financial system involves computerization of public expenditure management processes including budget formulation, budget execution, and accounting with the help of a fully integrated system for financial management of the line ministries (LMs) and other spending agencies (DFID, 2003). Such system puts in place effective controls that ensure transparency and accountability. The system also provides real-time financial information that end users can use to formulate budgets, manage resources and oversee projects and programs effectively. According to the USAID practical guide (2008), sound IFMIS systems coupled with the adoption of centralized treasury operations help developing country governments gain effective control over their finances, and enhance transparency and accountability, reduce political discretion and act as a deterrent to corruption and fraud.

The success of a project implementation is characterized by many factors. “A project is generally considered to be successfully implemented if it: comes in on-schedule (time criterion), comes in on-budget (monetary criterion), achieves basically all goals originally set for it (effectiveness criterion) and it is accepted and used by the clients for whom the project is intended (client satisfaction criterion)” (Pinto & Slevin, 1987). Alternatively, implementation is assumed to be a success if it achieves a large fraction of its potential benefits for example personnel reductions or a decrease in the cost of information technology. Another description

would be that the system accomplishes the level of Return on Investment identified in the project approval thus an ERP implementation should be evaluated based on cost of ownership against quantifiable benefits, taking into account the time (Umble et al, 2003).

The initial implementation and use of IFMIS faced challenges that pressed for a re-engineering process where business and system processes would be modified to enable full automation of the processes as well as proper functioning of the system. This would be in line with the vision of IFMIS which is "An excellently secure, reliable, efficient, effective, and fully integrated financial management system" and its mission which is "To passionately and with commitment continuously enhance our capacities to innovate, and leverage the best of technology, to provide for a fully integrated financial management" (IFMIS Strategic plan, 2011).

2.2 Drivers and Inhibitors in IFMIS Implementation

Cooke-Davies (2002) describes success factors as those inputs to the management system that lead directly or indirectly to the success of the project or business. IT projects are well known for having high failure rates (Randeree & Ninan 2009). It is estimated that about one-third of all IT projects either fail or are abandoned, and around 40 per cent of application development projects are cancelled before completion (Randeree & Ninan 2009). According to Rockart (1999), the process of identifying CSFs helps to ensure that those factors receive the necessary attention.

The Project Management Institute (PMI) defines projects as a means of achieving organizational goals and objectives, often in the context of a strategic plan. Payne (2010) notes that, it is important to set out key goals and objectives that need to be achieved in order to give purpose to the vision and mission. Payne (2010) further notes that specific strategic actions then need to be developed against these key goals and objectives and that these actions should be measurable, achievable and have resources and timeframes allocated.

Ang*et al.* (1995) identify clear goals and objectives as the third most critical success factor in a study of IT system implementations. Slevin and Pinto (1997) stated that the initial phase of any project should begin with a conceptualization of the goals and possible ways to

accomplish these goals. Ross (1999) found that clearly communicated goals helped companies achieve continuous improvement in system implementations. Attaining the stated goals or benefits is important to sustain organizational commitment to the IFMIS system implementation and that a clear business plan and vision are needed to steer the direction of the implementation and that such goals should be clearly defined and well-understood (Shanks *et al.*2000). Fawaz*et al.* (2008) state that a clear business plan and vision was needed to guide the project throughout the life cycle and that goal should be specific and operational to indicate the general direction of the project. Fawaz*et al.* (2008) found that one of the biggest problems IFMIS systems project leaders face come not from the implementation itself, but from expectations of board members, senior staff, and other key stakeholders. It is thus important to set the goals of the project before even seeking top management support. Doom *et al.* (2009) state that the goals should be realistic in terms of required quality, time and money.

Holland and Light (2000) note that the implementation strategy is concerned with the broad approach to the implementation process. Holland and Light (2000) cite the example of having a skeleton version implemented initially with extra functionality added gradually once the system is operating and the users are familiar with it. This approach is then contrasted against the ambitious strategy of implementing full functionality in a single effort. It is further highlighted that a decision on the implementation strategy is needed prior to considering issues around how the project should be managed.

Kalbasi (2007) found that it is critical to build a cross-functional team. A team with a mix of consultants and internal staff should be created to enable internal staff to develop technical skills for design and implementation. Grabski and Leech (2007) found that an organization, however, cannot completely rely on consultants to implement an IT system, as consultants have limited specific knowledge of the organization's detailed operations. Thus, a close working relationship between consultants and the organization's project team could lead to a valuable skill transfer (Bowen 1998). Somers and Nelson (2001) found that many organizations use consultants to facilitate the implementation process and that these

consultants generally have experience in specific industries with comprehensive knowledge about certain modules.

Wee (2000) found that the team should be given compensation and incentives for successfully implementation of the system on time and within the assigned budget. Nah *et al.* (2003) added that team members' compensation should be tied to project performance. In addition, the release of business experts with relevant knowledge onto the project on a full-time basis is very important and that it is critical for the project team and consultants to be assigned to the project on a full-time basis to ensure they focus completely on the project (Shanks *et al*, 2000).

Grabski and Leech (2007) found that a lack of project team expertise is often associated with software development risk. In a survey by Nah *et al*. (2003), it was found that having competent members in the project team is the most important success factor for IT system implementations. Both business and technical knowledge are essential for IS success (Bingi *et al.* 1999; Sumner 1999). Grabski and Leech (2007) identified that knowledge; skills, abilities, and experience in both technical and business aspects are all critical factors in determining a project's success or failure. Doom *et al.* (2009) noted that attention should be paid to the composition of the project team which should contain both business and well trained technical team members.

Monitoring and feedback are essential to ensure that the project is progressing as planned in technical and organizational terms particularly given the mix of internal and external staff working on the project and the resulting relationships (Holland & Light 2000).Francoise *et al*. (2009) noted that, in order to be able to pilot the project, one must put indicators in place that will allow for adequate visibility. In that sense, it is essential to define a monitoring plan from the onset. Each objective must be reflected in one or more indicators that are updated regularly and are associated with an adequate correction of disparities. Francoise *et al*. (2009) found that the monitoring processes facilitate communication with management and allow for true transparency. Holland and Light (2000) note that the project schedule/plan is the formal definition of the project in terms of milestones and critical paths and that it provides a clear view as to the boundary of the project. Nah *et al.* (2003) recognize that the milestones and

targets identified, need to be actively monitored throughout the project life cycle in order to track the progress of the project.

Implementing any system in the organization brings about changes in processes, roles policies and functions. With these changes come resistance from some of those affected. Hendricks (2012) asserts that resistance to change may come from various stakeholders in the organization such as individuals with vested interests who benefited from previous methods, civil servants who see it as a threat to their jobs and people who resist change for the fear of the unknown. Change management is therefore the process of creating, maintaining and systematically evaluating changes that occur in the organization (Barcan, 2010). This can be done through clear communication, education, training and other methods that emphasize on the need and benefits of the change. This can be done through various channels such as the media, workshops, seminars or conferences.

The objectives for a project provide the overall guidance for the upfront planning that translates into the future vision for the organization, and the steps needed to accomplish the IT system implementation. This should also result in specified measures of success that can be used to evaluate the outcome of the system implementation. The requirements provide the checklist as to what needs to be accomplished and what needs to be embodied in the software itself, and the implementation plan provides the actual steps to be performed. The project team and project manager should then be evaluated against these outcomes (Grabski& Leech, 2007).

2.3 Inhibitors in the Implementation of IFMIS

Governments in developing countries are increasingly exploring methods and systems to modernize and improve public financial management. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (IFMIS) as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting.

An IFMIS generally implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of processes, procedures, user profiles and requirements that the system will support (Chene, 2009). Key high-level government goals will only be achieved if the IFMIS solution supports a wide range of business processes that transcend functional, business, organizational and geographic boundaries. IFMIS design should, therefore, be preceded by detailed functional analysis that underpins current functional processes, procedures, user profiles and requirements that the new system will support (Rozner, 2008).

The introduction of an IFMIS can be regarded as an organizational reform which deeply affects work processes and institutional arrangements governing the management of public finance. Challenges and obstacles can have a devastating effect on the success of the implementation and management of the process and should not be underestimated (Rodin-Brown, 2008; Hove & Wynne, 2010).

The sheer size and complexity of an Integrated Financial Management Information System (IFMIS) poses significant challenges and a number of risks to the implementation process that go far beyond the mere technological risk of failure and deficient functionality. Studies conducted in various countries such as Tanzania, Ghana, Uganda, Malawi and Rwanda indicated that there are a number of challenges that may influence the successful implementation of an IFMIS (Diamond & Khemani, 2006; Rodin-Brown, 2008). Some of the most common challenges faced by developing countries are discussed in the subsections that follow. It is necessary for these challenges to be discussed in order to develop guidelines for better implementation of an IFMIS.

The effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. Lack of capacity is regarded as one of the main causes for the delay in the implementation process experienced by Ghana, whilst the emphasis that was put on capacity building through training in Tanzania was one of the main contributors to their success. The lack of staff with IT knowledge and experience cannot be easily remedied by training and hiring. The salary structure and terms of employment in the public sector are usually not attractive enough to compete with the private sector and to incentivize candidates

with the required IT-skills levels (Chene, 2009). Trained personnel also leave the government service, often for better job opportunities.

Brar (2010) argues that one of the key challenges in implementing of an IFMIS in developing countries is the low capacity for system implementation at sub-national level for example provincial and regional governments. This was experienced in an IFMIS implementation in South Africa where a total of nine provinces were involved. Farelo and Morris (2006) argue that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within government.

The implementation of an IFMIS is a complex, risky, resource-intensive process that requires major procedural changes and often involves top-level management officials who lack incentives for reform (Chene, 2009). It demands a commitment to change: change in technology; in processes and procedures; as well as changes in skills, responsibilities and behaviours (Rodin-Brown, 2008). Therefore, it is essential for all participants to be fully aware of the magnitude of the undertaking. Decision-makers must be convinced that the benefits of an IFMIS exceed the risks, and participating departments must recognize the need for a new system (Chene 2009).

According to Peterson (1998), the commitment of senior managers is one of the most frequently cited factors deciding the success or failure of an information system. Chene (2009), however, argues that the Ethiopian case study has proven that what matters most in the process is mid-level management's commitment to reform, as the changes ultimately have to be implemented at this level.

Diamond and Khemani (2006) argue that project commitment at the highest levels of the political system, as well as bureaucracy, and continuous participation from the direct users of the system and other stakeholders in all phases of the project, is necessary for success. Case studies of more successful countries, such as Kosovo, the Slovak Republic, Tanzania and

Ethiopia, indicate that the clear commitment by the relevant authorities is one of the main factors supporting successful implementation of an IFMIS (Chene, 2009).

The introduction of an IFMIS involves more than only the automation of public finance tasks and processes. An IFMIS must be supported by a coherent legal framework governing the overall public finance system (Chene, 2009). Amongst other things there should be clear legal guidance on the roles and responsibilities of all institutions in managing, controlling, and monitoring budget execution; the authorization, commitment and release of funds; the basis of accounting (cash or accrual); reporting requirements; and, asset management, public investment and borrowing (Rozner 2008). According to Chene (2009), the implementation of IFMIS in Tanzania was distinguished by revising and developing an enabling legislation which contributed to the success of the system.

An IFMIS generally implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of processes, procedures, user profiles and requirements that the system will support (Chene, 2009). Key high-level government goals will only be achieved if the IFMIS solution supports a wide range of business processes that transcend functional, business, organizational and geographic boundaries. IFMIS design should, therefore, be preceded by detailed functional analysis that underpins current functional processes, procedures, user profiles and requirements that the new system will support (Rozner, 2008).

In Ghana the design and development of IFMIS was not sufficient due to problems with the reporting functionality. This was because of a lack of clear specifications on the reporting requirements and approval from government on the design of various reports (Diamond & Khemani, 2006). Business process re-engineering is a critical aspect of any IFMIS reform and requires a review of all systems, functional processes, methods, rules and regulations, legislation, banking arrangements and related processes (Rodin-Brown, 2008). It will be necessary to establish new, standardized procedures throughout the government to formalize job descriptions and to improve arrangements and systems for internal and external control.

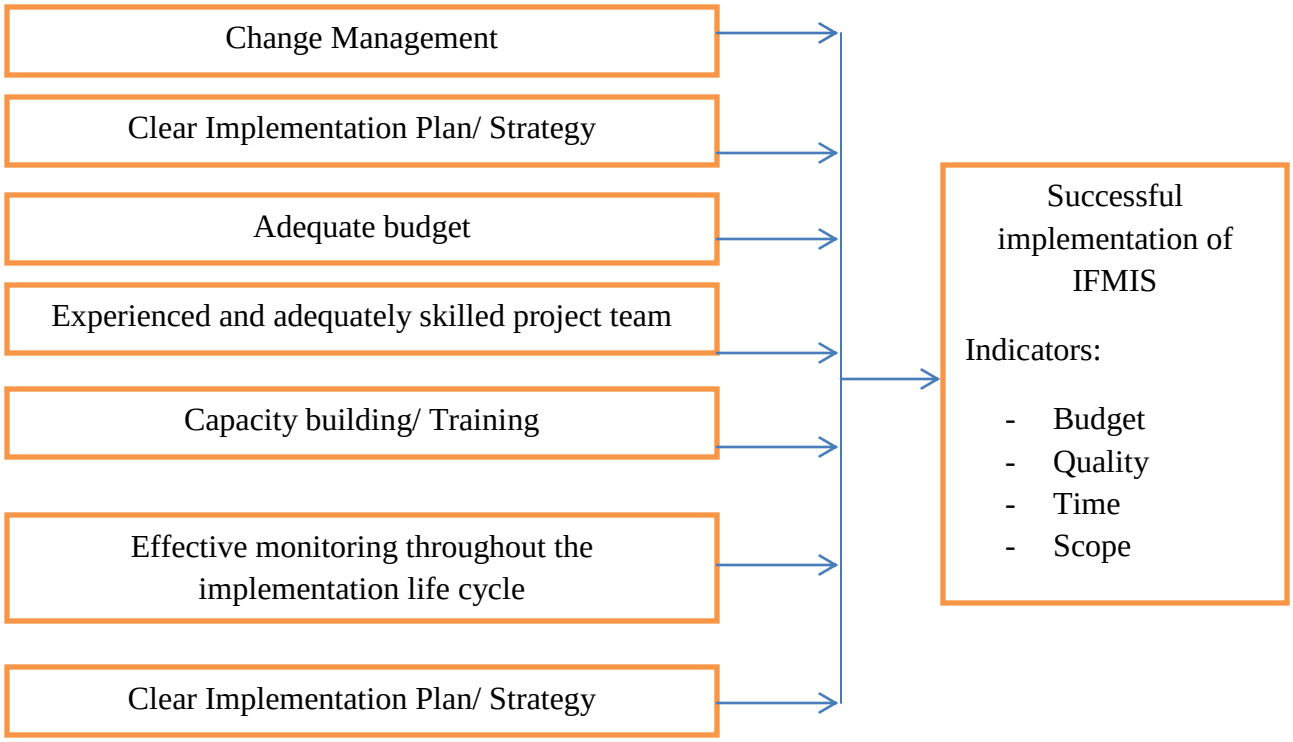
Many IFMIS projects have failed because the basic system functionality was not clearly specified from the onset of the intervention. Chene (2009) suggests that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf (OTS) or custom-built systems that fit the requirements of the specific country.

An analysis of the different systems used by developing countries indicates that they make use of both off-the shelf systems as well as custom-built systems. For example, Ghana and Uganda opted for a system designed and developed to fit their specific requirements, whilst Tanzania and Malawi opted for off-the shelf systems. It is important to note that a determining factor in the success of the implementation is not in the type of system, (i.e. off-the-shelf or custom-built) but rather in how complicated the system is. One of the reasons for the success of Tanzania's project is, for example, their decision to purchase a less complex, mid-range commercial package (Diamond & Khemani 2006).

2.6 Conceptual Framework

Based on the review of various literature sources above, a conceptual framework with several factors that have been postulated to influence success implementation of IFMIS was formulated below. In this case, Critical Success factors include; clear implementation strategy, Realistic goals and Objectives, Adequate budgets, capacity building and training, Teamwork, clear measures of success among other factors. For the purpose of this study, the diagram below will illustrate relationships between Critical success factors and influences in implementation of IFMIS in Kenya.

Figure 3: Critical Success Factors



Source: Literature Review, 2013

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This section outlines the research design, target population, sample, data collection methods and data analysis.

3.2 Research Design

The study adopted a survey research design. This enabled the researcher to capture a representative picture of the attitudes and opinions of a large population of system users in the government ministries towards the re-engineered IFMIS implementation process.

3.3. Population

The study covered the 18 government ministries in Kenya. This is because, the IFMIS implementation had been rolled out to all ministries and therefore ideal to involve all the ministries. Since it was not easy to select specific respondents from a large population, care was taken to select those who had key information in regard to IFMIS implementation. Finance officers, ICT officers and key system users formed the population of this study, giving a population of 121 individuals.

3.4 Sample

Stratified sampling technique was used to split the population to three strata (finance officers, ICT officers and key system users). The respondents were picked based on their involvement in the implementation of the re-engineered IFMIS. In addition, the study adopted simple random sampling to pick representatives from each category of the population. According to Mugenda & Mugenda (2003), a sample ratio of 0.3 should be sufficient to obtain sample representation of each stratum of respondents from all the three groups as shown in Table 3.1. The sample size therefore was 54 respondents derived from the target population.

Table 3.1 Sample Population

Clusters	No. of target population	Sampling ratio	Sample size
Finance officers	52	0.3	16
ICT Officers	18	0.3	5
Key system users	51	0.3	15
Total	**121**		**54**

3.4 Data Collection

The study depended on primary data which was collected using structured questionnaires (See Appendix I). The questionnaire comprised of open-ended and close-ended questions aimed at achieving the objectives of the study. The questionnaire had four sections: Part A provided general information on the respondents; Part B gathered information on the general evaluation of the re-engineered IFMIS implementation while Part C collected information on the success factors in the re-engineered IFMIS implementation. The Questionnaires were dropped and picked from the selected staff at the Government ministries.

3.6 Data Analysis and Presentation

The research used descriptive statistics to carry out analysis of data. With help of Statistical Package for Social Sciences software (SPSS) package and Microsoft Excel, statistical measures were used to summarize descriptive survey data, the measures of central tendency or statistical averages; mean, median and mode were obtained. Section A was analyzed using mean, mode and median. Factor analysis was used to determine the critical success factors in the implementation of the re-engineered IFMIS in Kenya.

CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.1.2 Response Rate

A sample size of 54 respondents was targeted from which 45 of them completed and returned the questionnaires resulting in a response rate of 83.3% as illustrated in Table 4.1. This response rate was representative and excellent to make conclusions for the study. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on this assertion, the response rate was considered to excellent.

Table 4.1 Response rate

Respondents	Frequency	Percent
Responded	45	83.3%
Non-respondents	9	16.7%
Total	54	100%

Source: Survey, 2013

4.2 Demographic Information

Demographic factors from the study population were obtained. The results are shown in the following sections:

4.2.1 Age of the Respondents

Age groups of the respondents were acquired and are shown in Table 4.2.

Table 4.2 Age of the Respondents

Age of the Respondents	Frequency	Percent
21-30	7	15.6
31-40	19	42.2
41-50	11	24.4
Over 50	8	17.8
Total	45	100.0

Source: Survey, 2013

The findings indicate that most of the respondents (42.2%) were aged 31-40 years, 24.4% were aged 41-50 years, 17.8% were aged over 50 years and 15.6% were aged 21-30 years.

4.2.2 Respondents Departments

In trying to find out the work department of the respondents the results in Table 4.3 were found.

Table 4.3 Respondents Departments

Respondents Departments	Frequency	Percent
Finance	16	35.6
Information Communication Technology	10	22.2
Other(Procurement, public communication, records unit)	19	42.2
Total	45	100.0

Source: Survey, 2013

The findings indicate that most of the respondents (42.2%) worked in other departments outside finance and information communication and technology departments, 35.6% worked in the finance department and 22.2% worked in the information communication and technology department. Those who indicated that they worked in other departments in the open ended section of the question noted that they worked in procurement, accounts, public communication or the records unit department.

4.2.3 Length of Employment in the Ministry

Information was acquired on how long the respondents had been employed in the Ministry. The results are shown in Table 4.4.

Table 4.4 Length of Employment in the Ministry

Years	Frequency	Percent
1 to 5 years	26	57.8
6 to 10 years	14	31.1
11 and above	5	11.1
Total	45	100.0

Source: Survey, 2013

The findings indicate that most of the respondents had worked in the Ministries for 1 to 5 years, 31.1% had worked for 6-10 years while 11.1% had worked in the ministry for 11 years and above. This indicates that most of the respondents had worked in the ministries long enough to have an intricate knowledge and understanding of the ministry and how it works. Therefore, they were in a position to understand and provide the right information for this study.

4.2.4 Involvement in the Implementation Process

The research looked into whether the respondents' departments actively participated in the re-engineered IFMIS implementation process. Table 4.5 presents the results.

Table 4.5 Departments Involvement

Involvement of Departments	Frequency	Percent
Yes	41	91.1
No	4	8.9
Total	45	100.0

Source: Survey, 2013

The findings indicate that the majority of the respondents (91.1%) indicated their department actively participated in the re-engineered IFMIS implementation process while 8.9% indicated their department did not actively participate in the re-engineered IFMIS implementation process.

4.2.5 Departments Satisfaction with the Installation of the Re-engineered IFMIS

Table 4.6 represents information obtained about whether the respondents' departments were satisfied with the installation of the re-engineered IFMIS.

Table 4.6 Departments Satisfaction with the Installation of the Re-engineered IFMIS

Departments Satisfaction	Frequency	Percent
Yes	42	93.3
No	3	6.7
Total	45	100.0

Source: Survey, 2013

The findings indicate that the majority of the respondents (93.3%) indicated that they were satisfied with the installation of the re-engineered IFMIS while 6.7% indicated they were not satisfied with the installation of the re-engineered IFMIS.

4.3 Implementation Success Factors

Table 4.7 shows the opinions of respondents as to whether the system implementation process was a success or not.

Table 4.7 Implementation Success Factors

Implementation Success Factors	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Mean	Std. Deviation
The system is functioning as it should with minimum problems.	1 2.22%	43 95.56%	1 2.22%	0 0	0 0	2.0000	.21320
The implementation was completed within the set budget.	2 4.44%	11 24.44%	32 71.11%	0 0	0 0	2.6667	.56408
The implementation was accomplished within the planned timeline.	1 2.22%	13 28.89%	27 60%	4 8.89%	0 0	2.7556	.64511
All the system features or capabilities for IFMIS were delivered.	4 8.89%	18 40%	20 44.44%	3 6.67%	0 0	2.4889	.75745
The system can be used by system users to carry out transactions.	12 26.67%	31 68.89%	2 4.44%	0 0	0 0	1.7778	.51737

Source: Survey, 2013

The findings as illustrated in Table 4.7 indicate that the 68.89% of the respondents agreed that the system can be used by system users to carry out transactions while 95.56% were of the opinion that the system is functioning as it should with minimum problems.

71.11% of the respondents were uncertain about whether the implementation was completed within the set budget.44.44% were of the opinion that all the system features or capabilities for IFMIS were delivered. The findings also indicated that the respondents were uncertain on the statements the implementation was accomplished within the planned timeline as shown by 60% response.

4.4 Success Factors

The general objective of the study was to determine the Critical Success Factors in implementation of the re-engineered Integrated Financial Management Information System (IFMIS) in Kenya. The collected data was analyzed and presented in Table 4.8.

Table 4.8 Success Factors

Success Factors	**Mean**	**Std. Deviation**
Effective training programs were drawn for the users.	3.4318	1.14927
The goals and objectives set could be realized within the project time frame.	3.3864	0.75378
IFMIS champions and change agents were effective in advocating for the implementation of system.	3.3864	1.06128
The Steering committee made good policy decisions.	3.3636	0.89159
The support team from the National treasury carried effective training on IFMIS.	3.3182	1.27175
There was sufficient manpower to carry out the implementation process.	3.2955	1.09075
Users were sensitized on changes to the legal and regulatory framework	3.2955	1.15294
Members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments.	3.2955	0.90424
The goals and objectives of the implementation process were measurable.	3.2500	0.86603

Success Factors	Mean	Std. Deviation
The project team members had clearly defined roles and responsibilities.	3.2500	1.0371
Managers showed initiative by attending implementation meetings and training sessions.	3.2045	0.82348
The process of the implementation was well executed.	3.2045	1.04725
The goals and objectives were achievable.	3.1818	0.89632
The goals and objectives of the implementation were communicated to all stakeholders.	3.1818	0.9947
The goals and objectives that were set could be achieved within the budget.	3.1818	0.86998
The goals and objectives of the implementation process clearly defined the activities that would be undertaken.	3.1591	0.91355
The goals and objectives were result-focused.	3.1136	1.03914
There was proper management of resources.	3.1136	0.68932
Adequate measures were put in place to monitor and control the progress of the implementation.	3.1136	0.86846
The implementation team had business and technical knowledge to carry out the implementation process.	3.0909	0.83019
A time-frame was set for the achievement of the goals and objectives.	3.0682	0.84627
The project team comprised of a cross-functional team.	3.0682	0.94985
The project team was knowledgeable in implementation of Information systems.	3.0682	0.94985
Proper processes for recruitment, selection, and training of members were set up and undertaken.	3.0682	0.99762
The need for acquiring the new system was clearly communicated through various channels.	3.0682	0.89955
Risk management policies, processes and procedures were put in	3.0227	0.92733

place.		
Top Managers ensured all the necessary resources were available.	3.0000	0.94006
Required and reliable infrastructure was acquired for the implementation process.	2.9773	1.02273
Effective communication strategies were set up among stakeholders.	2.9545	0.7138
Top Managers were approachable for any clarification.	2.9091	0.70935
Top Managers were available for any clarification.	2.8636	0.70185
Capacity building was undertaken on time.	2.8636	0.92989
Top Managers championed for IFMIS to be implemented in the organization.	2.8409	1.11945
There was Timely provision of relevant information at each stage of the implementation.	2.7045	0.87815
Staffs in the organization were willing to provide information on business processes to the IFMIS team.	2.7045	0.90424
There was adequate project funding.	2.5909	0.84408
Competent firms and consultants supported the implementation.	2.5227	0.9019
The process of requesting for additional funding was without any delays.	2.4773	0.76215

Source: Survey, 2013

The findings indicate that most of the respondents agreed that the process of requesting for additional funding was without any delays to a small extent as shown by a mean of 2.4773 and also agreed that competent firms and consultants supported the implementation to a small extent as shown by a mean of 2.5227. The respondents also agreed to a moderate extent that the goals and objectives of the implementation process clearly defined the activities that would be undertaken; the goals and objectives of the implementation process were measurable; the goals and objectives were achievable; the goals and objectives were result-focused; a time-frame was set for the achievement of the goals and objectives; the goals and objectives of the implementation were communicated to all stakeholders; the goals and objectives set could be realized within the project time frame; the goals and objectives that

were set could be achieved within the budget; top Managers championed for IFMIS to be implemented in the organization; top Managers were available for any clarification; top Managers were approachable for any clarification; managers showed initiative by attending implementation meetings and training sessions; the project team comprised of a cross-functional team; the implementation team had business and technical knowledge to carry out the implementation process and top Managers ensured all the necessary resources were available.

The findings indicate that IFMIS champions and change agents were effective in advocating for the implementation of system; the project team was knowledgeable in implementation of Information systems; the project team members had clearly defined roles and responsibilities; there was adequate project funding; there was proper management of resources; adequate measures were put in place to monitor and control the progress of the implementation; the process of the implementation was well executed; there was sufficient manpower to carry out the implementation process; effective training programs were drawn for the users and capacity building was undertaken on time. Additionally, proper processes for recruitment, selection, and training of members were set up and undertaken; risk management policies, processes and procedures were put in place; users were sensitized on changes to the legal and regulatory framework; required and reliable infrastructure was acquired for the implementation process; the need for acquiring the new system was clearly communicated through various channels; there was timely provision of relevant information at each stage of the implementation; staff in the organization were willing to provide information on business processes to the IFMIS team and effective communication strategies were set up among stakeholders. Furthermore, the Steering committee made good policy decisions; members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments and the support team from the National treasury carried effective training on IFMIS.

4.4.1 Factor Analysis

Responses collected on the research were subjected to further analysis. Communality is the proportion of variance that each item has with other items. The proportion of variance that is

unique to each item is then the respective items total variance minus the communality. Table 4.9 shows the communalities. The extraction method was the principal component analysis.

Table 4.9 Factor Analysis (Communalities)

Factors	Initial	Extraction
The goals and objectives of the implementation process clearly defined the activities that would be undertaken.	1.000	.788
The goals and objectives of the implementation process were measurable.	1.000	.851
The goals and objectives were achievable.	1.000	.831
The goals and objectives were result-focused.	1.000	.839
A time-frame was set for the achievement of the goals and objectives.	1.000	.777
The goals and objectives of the implementation were communicated to all stakeholders.	1.000	.870
The goals and objectives set could be realized within the project time frame.	1.000	.804
The goals and objectives that were set could be achieved within the budget.	1.000	.798
Top Managers championed for IFMIS to be implemented in the organization.	1.000	.824
Top Managers were available for any clarification.	1.000	.876
Top Managers were approachable for any clarification.	1.000	.904
Managers showed initiative by attending implementation meetings and training sessions.	1.000	.696
The project team comprised of a cross-functional team.	1.000	.870
The implementation team had business and technical knowledge to carry out the implementation process.	1.000	.835
Top Managers ensured all the necessary resources were available.	1.000	.745
IFMIS champions and change agents were effective in advocating for the implementation of system.	1.000	.850

Factors	Initial	Extraction
The project team was knowledgeable in implementation of Information systems.	1.000	.768
The project team members had clearly defined roles and responsibilities.	1.000	.762
There was adequate project funding.	1.000	.924
The process of requesting for additional funding was without any delays.	1.000	.868
There was proper management of resources.	1.000	.849
Adequate measures were put in place to monitor and control the progress of the implementation.	1.000	.865
The process of the implementation was well executed.	1.000	.914
There was sufficient manpower to carry out the implementation process.	1.000	.748
Effective training programs were drawn for the users.	1.000	.824
Capacity building was undertaken on time.	1.000	.751
Proper processes for recruitment, selection, and training of members were set up and undertaken.	1.000	.798
Risk management policies, processes and procedures were put in place.	1.000	.810
Users were sensitized on changes to the legal and regulatory framework	1.000	.910
Required and reliable infrastructure was acquired for the implementation process.	1.000	.764
The need for acquiring the new system was clearly communicated through various channels.	1.000	.766
There was Timely provision of relevant information at each stage of the implementation.	1.000	.748
Staffs in the organization were willing to provide information on business processes to the IFMIS team.	1.000	.840

Factors	Initial	Extraction
Effective communication strategies were set up among stakeholders.	1.000	.888
The Steering committee made good policy decisions.	1.000	.891
Members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments.	1.000	.730
The support team from the National treasury carried effective training on IFMIS.	1.000	.816
Competent firms and consultants supported the implementation.	1.000	.789
Extraction Method: Principal Component Analysis.		

Source: Survey, 2013

4.4.2 Factor Extraction

Figure 4.1 illustrates a scree plot of the factor Eigen values against the component numbers. According to scree plot in Figure 4.1, the study could only consider 9 factors because the curve tends to flatten from the fifth components onwards, due to relatively low factor Eigen values.

Figure 4.1 Scree Plot

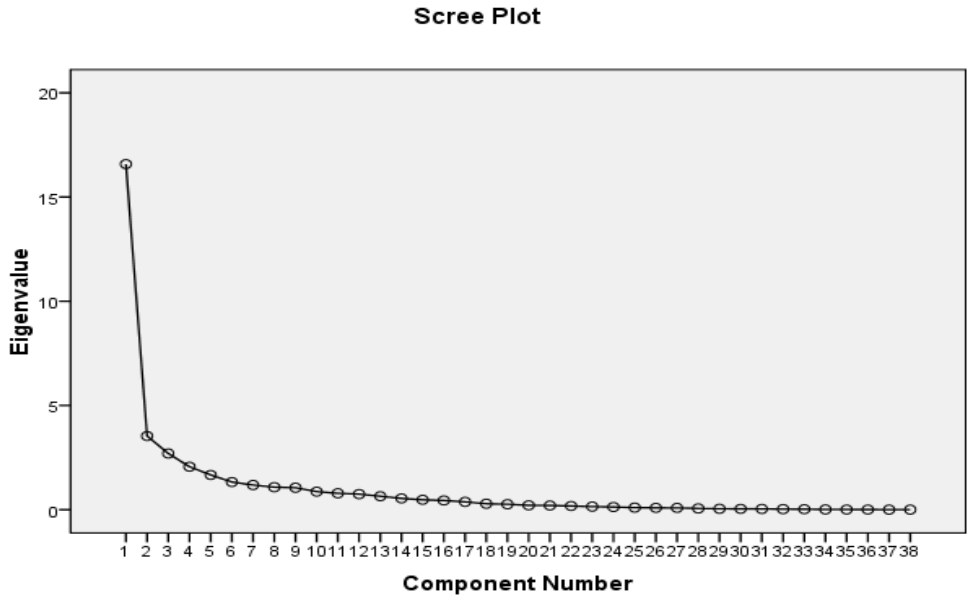


Table 4.10 presents the total variance of all the factors. Principal component analysis was used to extract factors which totaled 38. Eigen values indicate the relative importance of each factor accounting for a particular set and hence those with Eigen values greater than 1.0were selected. According to Table 4.10 only 9 factors which accounted for 82.055% of variation in success were significant for analysis.

Table 4.10 Factor Extraction (Total Variance)

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	16.580	43.631		16.580	43.631	43.631
2	3.535	9.304		3.535	9.304	52.935
3	2.695	7.092		2.695	7.092	60.027
4	2.062	5.425		2.062	5.425	65.452
5	1.666	4.384		1.666	4.384	69.836
6	1.326	3.491		1.326	3.491	73.326
7	1.182	3.111		1.182	3.111	76.437
8	1.079	2.840		1.079	2.840	79.278
9	1.055	2.777		1.055	2.777	82.055

Source: Survey, 2013

From Table 4.10 all variables that measure the Critical Success Factors in implementation of the re-engineered Integrated Financial Management Information System (IFMIS) in Kenya in one way or another are highly correlated with this factor.

Table 4.11 Factor Analysis (Rotated Component Matrix)

	Component								
	1	2	3	4	5	6	7	8	9
Effective training programs were drawn for the users.	.764								
The goals and objectives of the implementation process were measurable.	.704								
Users were sensitized on changes to the legal and regulatory framework	.661			.					
The project team members had clearly defined roles and responsibilities.	.645								
The goals and objectives were achievable.	.586								
Proper processes for recruitment, selection, and training of members were set up and undertaken.	.574								
Top Managers championed for IFMIS to be implemented in the organization.	.544								
The need for acquiring the new system was clearly communicated through various channels.	.534								
There was sufficient manpower to carry out the implementation process.	.514								

IFMIS champions and change agents were effective in advocating for the implementation of system.	.489								
Risk management policies, processes and procedures were put in place.	.487								
Top Managers were available for any clarification.		.887							
Top Managers were approachable for any clarification.		.863							
Managers showed initiative by attending implementation meetings and training sessions.		.701							
The goals and objectives were result-focused.		.628							
There was proper management of resources.		.562							
The goals and objectives of the implementation process clearly defined the activities that would be undertaken.		.550							
The process of requesting for additional funding was without any delays.			.860						
There was adequate project funding.			.793						

Adequate measures were put in place to monitor and control the progress of the implementation.			.703						
The Steering committee made good policy decisions.				.840					
The support team from the National treasury carried effective training on IFMIS.				.615					
Members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments.				.569					
Effective communication strategies were set up among stakeholders.				.550					
Staffs in the organization were willing to provide information on business processes to the IFMIS team.				.431					
The project team comprised of a cross-functional team.					.819				
The implementation team had business and technical knowledge to carry out the implementation process.					.791				
Top Managers ensured all the necessary resources were available.					.609				

The project team was knowledgeable in implementation of Information systems.					.498				
The goals and objectives that were set could be achieved within the budget.						.776			
The goals and objectives set could be realized within the project time frame.						.723			
The goals and objectives of the implementation were communicated to all stakeholders.						.579			
There was Timely provision of relevant information at each stage of the implementation.							.754		
Required and reliable infrastructure was acquired for the implementation process.							.558		
The process of the implementation was well executed.							.539		
A time-frame was set for the achievement of the goals and objectives.								.576	
Capacity building was undertaken on time.								.518	

Competent firms and consultants supported the implementation.									.661
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									
a. Rotation converged in 23 iterations.									

Source: Survey, 2013

4.4.4 Factor Isolation

Factor isolation involves isolating each of the variable factors and grouping them by these 9 extracted factors based on their factor loadings on each set. Table 4.12 shows the factors grouped with a minimum correlation of 0.4.

Table 4.12 Isolation of Factors

Factor Group	Variables
Factor 1	• Effective training programs were drawn for the users. • The goals and objectives of the implementation process were measurable. • Users were sensitized on changes to the legal and regulatory framework • The project team members had clearly defined roles and responsibilities. • The goals and objectives were achievable. • Proper processes for recruitment, selection, and training of members were set up and undertaken. • Top Managers championed for IFMIS to be implemented in the organization. • The need for acquiring the new system was clearly communicated through various channels. • There was sufficient manpower to carry out the

	implementation process. • IFMIS champions and change agents were effective in advocating for the implementation of system. • Risk management policies, processes and procedures were put in place.
Factor 2	• Top Managers were available for any clarification. • Top Managers were approachable for any clarification. • Managers showed initiative by attending implementation meetings and training sessions. • The goals and objectives were result-focused. • There was proper management of resources. • The goals and objectives of the implementation process clearly defined the activities that would be undertaken.
Factor 3	• The process of requesting for additional funding was without any delays. • There was adequate project funding. • Adequate measures were put in place to monitor and control the progress of the implementation.
Factor 4	• The Steering committee made good policy decisions. • The support team from the National treasury carried effective training on IFMIS. • Members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments. • Effective communication strategies were set up among stakeholders. • Staffs in the organization were willing to provide information on business processes to the IFMIS team.
Factor 5	• The project team comprised of a cross-functional team. • The implementation team had business and technical

	knowledge to carry out the implementation process. • Top Managers ensured all the necessary resources were available. • The project team was knowledgeable in implementation of Information systems.
Factor 6	• The goals and objectives that were set could be achieved within the budget. • The goals and objectives set could be realized within the project time frame. • The goals and objectives of the implementation were communicated to all stakeholders.
Factor 7	• There was Timely provision of relevant information at each stage of the implementation. • Required and reliable infrastructure was acquired for the implementation process. • The process of the implementation was well executed.
Factor 8	• A time-frame was set for the achievement of the goals and objectives. • Capacity building was undertaken on time.
Factor 9	• Competent firms and consultants supported the implementation.

The 38 success factors listed in the questionnaires were grouped together by their correlation with each other and a total of 9 main group factors were formed. Factor group 1 comprised of issues of user involvement in the process and clear procedures for recruitment and risk management. Factor group 2 focused on the importance of top level management support in the implementation. Factor group 3 looked at proper resource management specifically funding where there should be no delays in releasing of finances. Factor group 4emphasized on good communication strategies between stakeholders, team spirit and good support teams

as the main elements. A skilled team made up factor group 5. Factor group 6 entailed the setting up of goals and objectives, subsequent communication of them to stakeholders and the timeline within which they were to be achieved. The acquisition of appropriate infrastructure was captured in factor group 7 while factor 8 looked at project timelines for capacity building and achievement of goals and objectives. Factor group 9 looked at the importance of competence of external firms involved in the project.

In addition, respondents indicated that co-operation among departments, the availability of experts, adequate learning materials and adequate pre-testing of the system were among other factors that contributed to the successful implementation.

Respondents indicated some challenges experienced during the implementation process as insufficient manpower to manage the process, poor sensitization of users on the legal and regulatory frameworks, delays in releasing additional funds, short time limits set to complete the work, lack of capacity among users, staff unwillingness to provide information and poor network connectivity to the system. Some of the solutions to overcome the challenges that were suggested by the respondents were to have timely and more effective training programs, ensure sufficient manpower, proper sensitization of user, timely provision of adequate funds, assign for adequate time to test and deploy systems; and improve on the system's network connectivity.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusion and recommendations were made. The responses were based on the objective of the study which sought to determine the Critical Success Factors in implementation of the re-engineered Integrated Financial Management Information System (IFMIS) in Kenya.

5.2 Summary of Findings and Conclusion

The findings indicated that 54 respondents were targeted from which 45 of them completed and returned the questionnaires resulting in a response rate of 83.3%. This response rate was representative and excellent to make conclusions for the study. The findings showed that respondents had worked long enough in the ministries to have an intricate knowledge and understanding of the ministry and how IFMIS works. They therefore were in a position to understand and provide the right information for this study.

In addition, the study found that the majority of the departments which participated in the study actively participated in the re-engineered IFMIS implementation process. Most of the employees in the ministry were satisfied with the installation of the re-engineered IFMIS.

According to the findings, the system can be used by system users to carry out transactions, that the system is functioning as it should with minimum problems and all the system features or capabilities for IFMIS were delivered while there is uncertainty as to whether the implementation was completed within the set budget and the implementation was accomplished within the planned timeline.

The research found that there were 9 groups of factors that were critical in the re-engineering implementation process. There were: user involvement in the process and clear procedures for recruitment and risk management; proper management of resources; good communication strategies among stakeholders, team spirit and good support teams, skilled team; clear and

properly set goals and objectives; top level management support; appropriate infrastructure; set timelines for capacity building and achievement of goals and objectives; and involvement of competent firms in the project. In addition, co-operation among departments, the availability of experts, adequate learning materials and adequate pre-testing of the system were mentioned to have contributed to the success of the implementation.

Some of the challenges that were brought out in the research included: insufficient manpower to manage the process, poor sensitization of users on the legal and regulatory frameworks, delays in releasing additional funds, short time limits set to complete the work, lack of capacity among users, staff unwillingness to provide information and poor network connectivity to the system. Some of the solutions suggested to overcome the challenges were to have timely and more effective training programs, ensure sufficient manpower, proper sensitization of user, timely provision of adequate funds, assign for adequate time to test and deploy systems; and improve on the system's network connectivity.

5.3 Recommendations

From the findings the study recommends that the following as ways through which some of the challenges can be overcome: putting in place timely and adequate training programs, ensure there is sufficient manpower to implement the project, carry out user sensitization throughout the implementation process, improving the processes of releasing funds to avoid any delays and assign adequate time to test and deploy systems.

5.4 Areas for further research

The study was carried out in order to determine the Critical Success Factors in implementation of the re-engineered Integrated Financial Management Information System (IFMIS) in Kenya. From the results the study found out 9 critical success factors. The study recommends a further study on the those specific factors should be done to expound on how those factors influence the successful implementation of Integrated Financial Management Information System in government ministries in Kenya. With the roll-out of IFMIS to the

county governments, a study should be done on the implementation process to find out the success factors and challenges experienced.

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APPENDICES

Appendix I: Questionnaire

Dear Respondent,

My name is Sylvia Chebet Sigei, a student at The University of Nairobi undertaking a degree in Master of Business Administration (MBA). I am conducting a research titled "**Critical success factors in the implementation of the integrated financial management information system in government ministries, Kenya"** as part of fulfilling the course requirements. I will appreciate your assistance in completing the following questionnaire as your input will be of value to this study. Information provided will be used only for the purpose of this research and will be treated in strict confidence. Any enquiries concerning this research can be directed to**sylviasigei@gmail.com.**

SECTION A: GENERAL INFORMATION

(Please tick where appropriate)

1. Age of respondent in years:

   20 and under [ ] 21-30 [ ] 31-40 [ ] 41-50 [ ] Over 50 [ ]

2. Department

   Finance [ ] Information Communication Technology [ ]

   Others [ ]

   Specify_____

3. How long have you been employed in this ministry?

   1 to 5 years [ ]

   6 to 10 years [ ]

   11 and above [ ]

4. Did your department actively participate in the re-engineered IFMIS implementation process?

   Yes [ ] No [ ]

5. Did you actively participate in the implementation process of the re-engineered IFMIS?

   Yes [ ] No [ ]

   If yes, please describe your role:

_____

_____

_____

6. Was your department satisfied with the installation of the re-engineered IFMIS?

Yes [ ] No [ ]

If No, state why:

_____

_____

_____.

SECTION B: GENERAL EVALUATION OF THE IMPLEMENTATION OF IFMIS

The following statements represent factors that determine whether a system implementation was successful or not. Indicate the extent to what you agree or disagree with each statement in regard to whether this was achieved in the IFMIS re-engineering implementation. (Please tick where appropriate where, 1= Strongly Agree, 2= Agree, 3=Uncertain, 4= Disagree,

5= strongly disagree).

System implementation status	1	2	3	4	5
The system is functioning as it should with minimum problems.					
The implementation was completed within the set budget.					
The implementation was accomplished within the planned timeline.					
All the system features or capabilities for IFMIS were delivered.					
The system can be used by system users to carry out transactions.					

SECTION C: SUCCESS FACTORS

Indicate the extent to which you agree or disagree with these statements on how each influenced the successful implementation of the re-engineered IFMIS. (Please tick or circle where appropriate, 1= No extent, 2= Small extent, 3=Moderate, 4= Large extent, 5= Very Large extent).

System implementation process influence factors	**1**	**2**	**3**	**4**	**5**
The goals and objectives of the implementation process clearly defined the activities that would be undertaken.					
The goals and objectives of the implementation process were measurable.					
The goals and objectives were achievable.					
The goals and objectives were result-focused.					
A time-frame was set for the achievement of the goals and objectives.					
The goals and objectives of the implementation were communicated to all stakeholders.					
The goals and objectives set could be realized within the project time frame.					
The goals and objectives that were set could be achieved within the budget.					
Top Managers championed for IFMIS to be implemented in the organization.					
Top Managers were available for any clarification.					
Top Managers were approachable for any clarification.					
Managers showed initiative by attending implementation meetings and training sessions.					
The project team comprised of a cross-functional team.					

The implementation team had business and technical knowledge to carry out the implementation process.					
Top Managers ensured all the necessary resources were available.					
IFMIS champions and change agents were effective in advocating for the implementation of system.					
The project team was knowledgeable in implementation of Information systems.					
The project team members had clearly defined roles and responsibilities.					
There was adequate project funding.					
The process of requesting for additional funding was without any delays.					
There was proper management of resources.					
Adequate measures were put in place to monitor and control the progress of the implementation.					
The process of the implementation was well executed.					
There was sufficient manpower to carry out the implementation process.					
Effective training programs were drawn for the users.					
Capacity building was undertaken on time.					
Proper processes for recruitment, selection, and training of members were set up and undertaken.					
Risk management policies, processes and procedures were put in place.					
Users were sensitized on changes to the legal and regulatory framework					
Required and reliable infrastructure was acquired for the implementation process.					

The need for acquiring the new system was clearly communicated through various channels.					
There was Timely provision of relevant information at each stage of the implementation.					
Staffs in the organization were willing to provide information on business processes to the IFMIS team.					
Effective communication strategies were set up among stakeholders.					
The Steering committee made good policy decisions.					
Members of the Technical committee effectively oversaw the implementation of IFMIS in their own departments.					
The support team from the National treasury carried effective training on IFMIS.					
Competent firms and consultants supported the implementation.					

1. Were there any other factors that contributed to the successful implementation of the re-engineered IFMIS?

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2. What were some of the challenges experienced during the implementation?

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3. In your opinion, what would you suggest as solutions for the challenges mentioned in 2 above?

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….THANK YOU FOR YOUR PARTICIPATION…..

Appendix II: List of Government Ministries

	CABINET/MINISTRIES	STATE DEPARTMENTS
1	Presidency Executive Office of the President	Interior and Co-ordination of National Government
2	Executive Office of the Deputy President Interior and Co-ordination of National Government Devolution and Planning	Devolution and Planning
3	Defence	Defence
4	Foreign Affairs	Foreign Affairs
5	Education, Science and Technology	- Education - Science and Technology
6	The National Treasury	The National Treasury
7	Health	Health
8	Transport and Infrastructure	- Transport - infrastructure
9	Environment, Water and Natural Resources	Environment, Water and Natural Resources
10	Land, Housing and Urban Development	Land, Housing and Urban Development
11	Information, Communication and Technology (ICT)	Information, Communication and Technology (ICT)
12	Sports, Culture and the Arts	Sports, Culture and the Arts
13	Labour, Social Security and Services	Labour, Social Security and Services
14	Energy and Petroleum	Energy and Petroleum
15	Agriculture, Livestock and Fisheries	Agriculture, Livestock Fisheries

16	Industrialization and Enterprise Development	Industrialization and Enterprise Development
17	Commerce and Tourism	Commerce and Tourism
18	Mining	Mining
	Office of the Attorney-General and Department of Justice	Office of the Attorney-General and Department of Justice