

**FACTORS INFLUENCING PERFORMANCE OF
INTEGRATED FINANCIAL MANAGEMENT
INFORMATION SYSTEMS PROJECT IN THE PUBLIC
SECTOR; A CASE OF MACHAKOS COUNTY, KENYA**

**BY
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DECLARATION

I the undersigned declare that the project is my original work, any material derived from any other source have been duly acknowledged and it has not been submitted to any other University for academic credit.

Signature Date.....

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L50/84849/2016

This is project has been submitted for examination with my approval as the University supervisor.

Signature Date.....

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DEDICATION

I dedicate this research to my parents who laid the moral groundwork in my life and for constantly pushing me to be the best that I can be. I will always treasure you. I also dedicate this research to my loving Husband Jackson M. Kalla and my two loving daughter Claire and Karen who has stood by me through thick and thin to ensure I have gone this far.

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ABBREVIATIONS & ACRONYMS

ANT Actor Network Theory

DFID Department for International Development

ICT Information and Communications Technology

IFMIS Integrated Financial Management Information System

IMF International Monetary Fund

PFM Public Financial Management

SPSS Statistical Package for Social Sciences

ABSTRACT

The Kenya Government has implemented the Integrated Financial Management Information System (IFMIS) since the year 2005 as its sole accounting system. The reason why the Kenyan Government adopted the use of this system was as a result of the numerous benefits envisaged from its effective use. However, for now over 11 years of implementation, this system has a few financial hiccups and therefore does not fully provide the expected benefits of integrated financial planning, implementation and control of public expenditure. The purpose of this study was to establish the factors influencing performance of Integrated Financial Management Information Systems project in the public sector in Machakos County. The specific objectives of this study were; To establish how internal control system influence performance of IFMIS in the public sector, to determine how personnel management influence performance of IFMIS in the public sector, to determine the level of implementation of IFMIS in the public sector and to determine how personnel management influence performance of IFMIS in the public sector. Three major theories that were discussed in relation to the study: System Theory, Actor Network Theory and DeLone and McLean Model of Information Systems Theory. The study adopted descriptive research design for the target population of 300 government officers at Machakos County. A sample size of 30 respondents and a stratified sampling technique was used and data collected through the use of questionnaires as a research instrument. On the other hand, secondary data was obtained from published documents such as journals, periodicals, magazines and reports to supplement the primary data. The quantitative method of data analysis was employed to analyze data with help of SPSS version 23 and Excel. Findings of the study were that the variables that were measured they all influenced the performance of IFMIS in Machakos County. The study recommended that internal control systems with respect to vulnerability and authentication of the system should be properly scrutinized and monitored to avoid negative influence on performance of IFMIS in the County.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

It has been a trend for developing countries to employ the idea of computerizing their government operations especially with respect to Public Sector. The developing countries have over the years portrayed a demand in the quality of public sector financial management by the aid communities. In contrast during the cold war aid was generous but mostly was given to political allies with few questions (Hashim. 2006). Since 1989 interest in the state affairs had been hindered but using the World Bank's report, the role of the state became increasingly stronger in development efforts, and especially in poverty alleviation (World Bank. 2008). The introduced agenda recognized that, while there may be too much interruption in the state economy too little government capacity may seem to appear to come up with policy, perform basic administrative functions, partner and/or work with private investors, and ensure the development of infrastructure and public services (Hopelain. 2004). In 2003, the UK's Department for International Development (DFID) gave out its guide on public expenditure management which highlighted that there had been a dramatic flow of interest in public expenditure issues amongst governments, development agencies and the wider public. This change was observed in the eyes of World Bank to offer Africa a chance to boost intermediate stages of development (DFID. 2003). According to World Bank (2004), due to this consultants and other advisors to governments in Africa took the idea of the introduction of modern information technology the Integrated Financial Management Information Systems for granted.

The government of Kenya has introduced strategies to bring about transparency and efficiency as a result of the continuous concerns of the poor performance in financial management such as lack of reliable and timely information for decision-making in the public sector the government of Kenya has come up with strategies to bring about transparency and efficiency. According to the National Treasury of Kenya (2003), financial management, accounting systems and the role of audits show weaknesses in the management of financial information. The review of Treasury focuses on the need to

come up with a strategic plan with the aim of improving the financial management systems: skills and capacity within the government financial operations units. It also states how timeliness of financial information, if improved could form the basis for improving control of expenditure against budget (Kinyua, 2003).

In addition, e-government led to the adoption and implementation of Integrated Financial Management Information System (IFMIS) within the Public Financial Management (PFM) system Dorotinsky (2005): Cho (2005): Kasumba (2009). The major objective was to ensure there is support for the achievement of fiscal discipline strategic and efficient distribution, disbursement and use of funds, value for money and accountability in the use of public funds.

The International Monetary Fund (IMF) conducted a survey in government accounting systems in 1993 followed by an analytic study sponsored by the World Bank; this led to the introduction of IFMIS. The need to computerize the entire accounting and auditing system in the country was the main objective. The idea behind computerizing the whole system was as a result of the generation of transparent, accurate and reliable financial statements; to monitor fiscal deficit; to predict flow of cash; to manage public debt and to achieve effective financial controls (Kinyua. 2003). Most of the previous accounting system never promised timeliness, accuracy and above all transparency. The most important tool for accounting in any organization are the accountants since they monitor cash flows and more importantly portray the overall inner picture of the organization to the stakeholders which help them take informed financial decisions (Kearney. 2004).

One of the major benefits of IFMIS project is that it increases the risk of detection of corruption. According to Chéne (2009), a well-developed IFMIS can perform key features that may help detect excessive payments, fraud and theft. These include, for example, automated identification of omissions to normal operations, patterns of unusual activities, automated cross-referencing of PIN for fraud, of asset inventories with equipment purchase to detect theft, automated cash disbursement rules and identification of non-existing workers.

According to Bartel (2009), there has been the ease of operating, reliability security and flexibility of IFMIS. This has provided timely, accurate, and consistent data for financial management and budget decision-making. On the other hand, it has also brought attention to the users who note that while IFMIS has been considered to be important. It has weaknesses that need to be addressed. Recent research on IFMIS has focused on various aspects of IFMIS design, systems development, implementation and sustainability Casals Bartel. (2009); Miranda & Keefe. (2003), but no study has effectively looked at the factors influencing the performance of IFMIS in public sector particularly on its vulnerability, its reliability and flexibility" factors which have had adverse effect on operationalizing IFMIS. It is against this background that I carry out a study on factors influencing the performance of IFMIS in the public sector case study in Machakos County.

Machakos County was listed by the office of the Controller of Budget and the Commission on Revenue Allocation as one of the counties that failed to fully implement their budget in 2010 and 2014. Gachithi (2010) who conducted a study on the challenges of budget implementation in the University of Nairobi established the challenges to include inefficient budget preparation procedures, insufficient funds, institutional weakness and poor funds allocation procedures.

The Public Procurement and Asset Disposal Act (2015) gave guidelines in order to help improve efficiency and accountability within Machakos County and other counties as well. The top level management suggested that the levels of fraud were low, observing that a lot had been done by the county management to deter fraud, including formation of county anticorruption committees and adoption of recommended financial system, IFMIS (Burugu, J. N., 2014).

1.2 Statement of the Problem

The government had consistently experienced misappropriation of funds and lack of appropriate control mechanisms in PFM of funds which leads to poor service delivery and overspending (Kinyua, 2003). Despite existence of manual based control systems failure to account for government expenditure has been an area of interest to the public

and international institutions such as World Bank and International Monetary Fund (Kinyua, 2003). The Integrated Financial Management and Information System (IFMIS) system was first launched in 2003 in Kenya. This however introduced only limited modules, with other financial management processes remaining manual. IFMIS Re-engineering was therefore deemed necessary to introduce a full cycle end-to-end integrated approach for efficient and effective public financial management and service delivery to citizens. In the year 2005, IFMIS was introduced to mitigate the government against loss of revenue against unauthorized expenditure. The IFMIS Re-engineering has promoted transparency, accountability and responsiveness of public financial resources. Other benefits include curtailing wasteful spending and corruption, enhancing controls and audit procedures as well as strengthening fiscal planning and reporting (Selfano, O. F., Peninah, A., & Sarah, C., 2014).

According to Njonde and Kimanzi (2014), IFMIS has been effective in budgeting financial reporting and internal controls. Also, it is effective in implementation of government projects, although there were challenges faced in internal controls. According to Wamunyu (2003), IFMIS has led to significant improvement in both public financial management and service delivery in government ministries in Kenya. Chumba (2014) showed that a reliable system is basically one that is accurate, timely, complete and consistent in collection of information. The infrastructure which supports IFMIS is deemed to be secure from destruction, unauthorized access breach of confidentiality and corruption so that there is efficient cash management. The flexibility of local IFMIS design can decrease chances of failure in cash management (Selfano. O, F., Peninah, A., & Sarah. C, 2014).

Following the establishment of devolved governments in Kenya, county governments were expected to collect their own revenue to mitigate between allocation of revenue from central government and their own budget. This called for automation of revenue collection systems from Local Authority Integrated Financial Operations Management System (LAIFORM) to Integrated Financial Management Information System (IFMIS) (Mutisya J.M, 2014). The County Government of Machakos wished to implement a revenue collection system that stopped revenue leakages, ensured adequate information

to the County customers, maximized on revenue collection to support the Government's development agenda and services delivery to her citizens. The proposed solutions were to ensure transparency of the revenue collection processes, embedded control mechanisms, data security and reliability (Mathew, J. M, 2014).

The above recent studies did not consider all factors of public financial management that are affected by IFMIS. Chumba (2014), only considered cash management and the rest of the study did not put emphasis on human aspect such as accountability, internal controls, financial reporting and transparency. This study therefore seeks to fill this gap by exploring the factors affecting of IFMIS on financial management in public sector in Kenya.

1.3 Objectives of the study

The purpose of this study was to establish the factors influencing performance of Integrated Financial Management Information Systems project in the public sector in Machakos County.

Specific objectives

- (i) To establish how internal control system influences performance of IFMIS in the public sector.
- (ii) To determine how human resource management influences performance of IFMIS in the public sector.
- (iii) To examine the influence of ICT infrastructure on the performance of IFMIS in the public sector.
- (iv) To establish what implementation strategies influences performance of IFMIS in the public sector.

1.4 Research Questions

- (i) Does the internal control system influence performance in terms of efficiency and reliability of IFMIS?
- (ii) How does the human resource support the implementation of IFMIS in the public sector?
- (iii) How does information communication technology infrastructure influence performance of IFMS in public sector?
- (iv) What are the various strategies of implementation of IFMIS in the public sector?

1.5 Significance of the study

This study sought to contribute greatly to the field of knowledge on financial management in relation to the current system, IFMS. The study is of value to decision makers because it aims to give recommendations on some best practices that can be adapted for effective implementation of IFMIS project. It also offers a chance for strategic policy considerations related to the influence of ICT in Kenya. An understanding of this study will help reduce the cases of misappropriation of funds proper budgeting, and above all facilitate accuracy and transparency if the system is used honestly. This will help the members of the county to identify the weak areas as well as improving the strengths on performance of IFMIS. In addition, the research provides a reference platform for other scholars to conduct similar studies in developing countries/counties since it is a new field both in private and public sector. The study is deemed to be of help to the government's relationship with financial institutions by ensuring credibility, accountability, transparency and reliability of financial process.

1.6 Limitations of the Study

The researcher faced a challenge of time of carrying out the study in the County. This was due to busy time schedules by the county workers (respondents). Another limitation was the respondents did not feel comfortable while answering some questions even after assurance of confidentiality. This was feared to lead to inaccurate data analysis and as a result wrong conclusion on the factors influencing the performance of IFMIS project in the County. The issue of frequent follow up of questionnaires issued to respondents

delayed collection of filled questionnaires thus late analysis of the data.

1.7 Delimitation of the study

This study was limited to Machakos County in scope. Questionnaires were issued to employees working under the finance, accounts, auditing and procurement departments who were randomly selected from a stratum of a population sample size.

1.8 Basic Assumptions of the Study

The researcher assumed that the sample size that was obtained will represent the population of the study where the results shall be analyzed and recommendation on the weak areas done. The researcher also assumed that the target respondents were familiar with the county, history and progress of IFMIS after implementation and ended up giving the most accurate information required for analysis.

1.9 Definition of Significant Terms

Actor network: Heterogeneous network of aligned interests, including people, organizations and standards.

Financial Management: This is the planning, monitoring, organizing and controlling of the financial activities such as procurement and utilization of funds of the public sector.

Financial management information system: Refers to 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 and other spending agencies.

Governance: This can be assumed as the systems and procedures concerned with ensuring the overall direction, usefulness, supervision and accountability of an organization through understanding of roles, ensuring delivery of organizational purpose, working effectively both as individuals or as a team, undertaking effective control, operating with integrity ,being open and accountable.

Information and Communication Technology: Refers to automatic acquisition, storage, manipulation, movement, control, display, switching interchange, transmission or reception of IFMIS data or information.

Information system: The mechanism providing the means for collecting, storing, producing, and distributing information serving the information needs of an organization, while supporting its operations, both at managerial and operational level, at planning and decision-making level for the organization.

Semiotics: The study of signs and symbols, both visual and linguistic, and their function in communication.

1.10 Organization of the study

This study was covered in Machakos County to establish the factors influencing the performance of Integrated Financial Management Information Systems project. The study was conducted between April 2017 and June 2017 by adopting a descriptive research design to describe and later analyze data. Data was collected through the administration of questionnaires for analysis using SPSS analysis. The major focus was in the Procurement, Auditing and Finance and Accounting department in the public sector.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses literature related to the determinants of performance of Integrated Financial Management Information Systems in Machakos County, Kenya. It focused on the effects of internal control systems on IFMIS, influence of ICT infrastructure and the human resource capacity. The literature was reviewed from books, journals, academic publications, the internet, newspapers and government statistics.

2.2 Performance of IFMIS

Governments in developing countries have been looking for methods and systems to modernize and enhance financial management. For instance, over the past years, the introduction of the Integrated Financial Management Information System (IFMIS) has been one of the most adopted financial management revolution practices, aimed at the promotion of accountability, transparency, efficiency, effectiveness, security of data management and detailed financial reporting. The scope and functionality of an IFMIS vary across countries, but normally it represents an enormous, complex, strategic reform process (Chêne 2009).

According to Dorotinsky (2003) and Rozner (2008) IFMIS is an information system that tracks financial processes, activities and gives a summary of financial information. It supports adequate management reporting, fiduciary responsibilities, policy decisions, and the preparation of auditable financial statements. In its basic form, IFMIS is a designed accounting system configured to perform according to the specifications and needs of the environment in which it was installed and developed Rodin-Brown (2008). This simply implies to the automating of financial operations.

The adoption of Integrated Financial Management Information Systems (IFMIS) has become a center of interest in the financial revolution to promote efficiency, security of data management and comprehensive financial reporting.

Integrated Financial Management Information Systems (IFMIS) provides a cohesive computerized financial package to provide the effectiveness and transparency of public resources by automating budgeting and accounting system for a government. It consists of several core sub-systems which plan, process and report on the use of public resources, Rodin and Edwin (2008).

The performance and functionality of IFMS can vary across countries and also counties, but sub-systems commonly include accounting, budgeting, financial management, debt management and core treasury systems. These core sub-systems have been chosen in some countries to expand their IFMIS with non-core sub-systems such as asset management, tax administration, procurement management, human resource and payroll systems, retirement pension and social security systems and among other areas that support the core modules, Brown (2008).

The measure of performance of IFMIS may also differ and be limited to particular country-level institutions such as the Ministry of Finance. However, IFMIS is usually meant to be used as a common system across government institutions, this includes the more ambitious schemes for federal, state and local governments. The integration of IFMIS across the board ensures that all users conform to common standards, rules, and procedures with the aim of reducing risks of mismanagement of public resources, IFMS (2000).

According to Dorotinsky (2003), that there are a several ways in which IFMIS can improve the performance of public finance management, but IFMIS generally seek to improve the confidence and credibility of the budget through greater comprehensiveness, accuracy, and transparency of information. The main aim is to improve budget planning and execution by ensuring timely and accurate data for budget management and decision making. Integrated Financial Management Information Systems allows a standardized and realistic budget formulation across government at the same time promoting better control over budget execution through the full integration of budget execution data. It also allows for decentralization of financial functions and processes under the overall control of the Ministry of Finance. It further enhances financial discipline and control operating costs by reducing administrative duties and civil servants' workload.

In addition, IFMIS also strengthens the efficiency of financial controls by providing detailed, reliable and timely financial information to the Auditor General, Parliament, Senate, investigative and prosecutorial agencies. This, as a result, improves accounting, recording and reporting practices through the provision of timely and accurate financial data, an upgraded computerized accounting system and a standardized integrated financial management reporting system. Success due to efficiency and effectiveness automates bank reconciliation and allows a closer monitoring of outstanding bills and cash in bank accounts, Junghun Cho (2003).

Diamond and Khemani (2008) further mention that all manner of reports can be generated on the performance of IFMIS; balance sheets, sources, and uses of funds, returns on investment, aging of receivables cost reports, and payables, cash flow projections, budget variances, and all types of performance reports. Managers can utilize this information for diverse purposes such as to plan, formulate and execute budgets. Also to track the status of debts, examine results against budgets and plans, manage cash balances, and receivables, monitor the maintenance and consumption of fixed assets and the performance of specific departments or units and finally make revisions and adjustments as necessary.

William (2003) argues that an IFMIS is an information system that monitors financial activities and provides a summary of financial information. Such systems provide critical support for management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements in the private sector. In the government jurisdiction, IFMIS systems must be designed to support specifically the public sector functions. For this reason, they must be capable of handling and communicating all the financial movements for the complex structure of budget organizations.

2.3 Internal Control Systems and Performance of IFMIS

Internal control systems are the policies and procedures put in place by the management of a government agency to ensure the agency achieves its objectives and complies with external laws and regulations. Such policies and procedures tend to cover monetary book-keeping and reporting, performance monitoring, asset management and procurement

(Simson, 2011). IFMIS can also enable management to do the following as a management tool: control aggregate spending and the deficit, prioritize expenditure across policies, programs, and projects to attain efficiency and transparency in the allocation of resources. It also makes better use of budgeted resources, namely, to achieve outcomes and produce outputs at the lowest possible cost (Hendricks, 2012). In other words, the benefits anticipated in implementing IFMIS are enhanced governance, reduced fraud, transparency and accountability, and better monitoring and evaluation.

According to Oz (2006), the goal of financial managers, including controllers and treasurers, is to manage an organization's money as efficiently as possible. The case of Machakos County where development has been the main objective of the county government, management of funds is crucial, and for this reason, financial managers should ensure such process is done efficiently. The sector can achieve this goal by collecting payables soonest possible, making payments at the required time stipulated by contract or law, ensuring that enough funds are available for day-to-day operations and taking advantage of incoming opportunities to accrue the highest production on funds not used for current activities. Samson (2011) pointed out that in order to effectively manage the government's cash flow and prevent debts from accumulating, it is important to monitor the pipeline of future payments. Also, procurement is a common source of corruption, and therefore procurement systems tend to include controls aimed to detect and deter corruption via IFMIS.

Hendricks (2012) submits that a well-designed IFMIS provides some important features that help detect overpayments, fraud, and theft. For example, patterns of suspicious activities, automated identification of exceptions to normal operations, automated cross-referencing of personal identification numbers for fraud and of asset inventories with equipment purchase to detect theft and automated cash disbursement rules and identification of non-existing workers.

However, Kenya in the year December 2016 the county governments experienced a major functionality challenge of IFMIS where the servants didn't receive their monthly salaries for one month. A report released by Standard Media Group 22nd Dec 2016 by Martin Wachira stated that, "it has now emerged that staff and other employees working

for the County Government will not receive their December salaries on time after a hitch developed on the Government's payment system". This shows how the system can be frustrating in case of any technical problem and it is the mandate of the government and the ICT experts to ensure such serious problems don't occur for quite a long time.

2.4 Performance of IFMIS and Human Resource Management

Edwin B. Fliippo (1980) defines Human Resource Management as the planning, organizing, direction and controlling the performance of those operative functions. According to Jucius M.J. (1971), Human Resource Management is that field of management which oversees planning, organizing, and controlling various operative activities of developing, procuring, maintaining and utilizing a labor force in order to attain objectives. They both agree on the aspect of functions of management. Therefore Human Resource Management can be said to be the management of functions of management in order to achieve organization's goals and objectives.

Capacity building is an important factor influencing the success of IFMIS implementation, especially in developing countries (Chêne 2009). IFMIS entails more than only implementing a project. It also means planning for capacity building. A scrutinized training program is therefore important for the achievement of the goals of the project and ought to be gathered as early as possible. Training is essential to unlocking client readiness and is the best way to ensure sustainability of a system (Vickland & Nieuwenhuijs 2005).

In order to build the required capacity, it is important to create a learning environment at the initial stage of the project and to treat the whole process as a learning opportunity with training and capacity building being part of an ongoing process. Senior managers, technical staff, and end users should also be offered with training and should teach users how to handle new system and how it affects business operations and processes. Diamond and Khemani (2006), however, argue that the training will not only involve training in the use of IFMIS for the respective operations and functions, but will also involve training in the new scope of legal and regulatory, codes and classifications, and the new put in place business procedures.

A well-defined training program will also assist in capacity building and help improve confidence amongst users who are reassured that there will be some constants in the process of change. Given the nature of institutions and organizations, capacity building is a frequent and continuous process. Therefore it needs to be ongoing and permanent (Rodin-Brown 2008).

Staff with the necessary knowledge and skills enables the effective implementation, operation, and maintenance of IFMIS. Inadequate capacity is regarded as one of the major causes for the delay in the implementation process; hence emphasis should be put on capacity building through training in order to avoid such discrepancies (Selfano & Serah, 2014). A report submitted 2015 by IFMIS Director, indicated that the devolved governments conducted a training program in order to enhance Public workers with the necessary skills and knowledge. This aimed at enhancing transparency and efficiency in operations well as exercise of management authority by top management.

Farelo and Morris (2006), contend that the human resource development matter within government needs to be given priority, the education system needs to be consistent with the information and communication technologies drive of the country as well as regions. Farelo and Morris (2006), further pointed out that limited information and communication technologies skills need to be introduced and retained particularly within the public sector.

The lack of staff with IT knowledge and experience cannot be easily resolved by hiring and training. The normal structure of salary and terms and conditions of employment in the public sector are in most cases not appealing enough to compete with the private sector and give an incentive to candidates with the right levels of IT-skills (Chêne 2009). Trained personnel also leave the government service, often for better job opportunities. Sigei (2013) argues that the major challenge facing the implementation of IFMIS in Kenya is due to low capacity for system implementation at the County level. Hove and Wynne(2010) contend that the Personnel management in devolved government development need be given the right attention, factors such as training and education system must reflect the actual picture of the requirements in the market irrespective of the scarce information and communication technologies (ICT) skills in the country.

2.5 Performance of IFMIS and ICT Infrastructure

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

To accomplish this revitalization, governments are introducing innovations in their organizational structures and practices, and how they mobilize, deploy and utilize human, financial and ICT resources (United Nations 2011). The introduction of ICT/e-government in the public sector is playing a critical role in governments' efforts to reform their public sectors. The current ICT system is a springboard and a significant strategic tool for boosting public sector performance. This, therefore, creates an advantage by ensuring greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organizational boundaries and levels of government, and greater transparency and accountability in government functions (Ameen and Ahmed, 2011). Consequently, over the past 10 to 15 years, governments around the world have adopted information and communication technologies, especially digital technology (OECD 2009) which have significantly changed the ways in which government operates. A second key issue that has emerged is achieving greater citizen engagement in public policy processes. E-government is no longer viewed only as the source of information or services via the internet but as a platform for how citizens interact with government and how government interacts with itself (Rose and Grant 2009)

Many IFMIS projects have not succeeded because the basic system functionality was not imposed from the launch and implementation of the intervention. Chêne (2009) suggests that IFMIS must be carefully designed to conform to the needs and functional requirements, including the procurement, 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 or systems made to fit the requirements of a

particular country. Developing countries make use of both off-the-shelf systems as well as custom-built systems. This argument is supported by an analysis of the different systems used by such countries, for example, Uganda and Ghana opted for a system designed and developed to fit their specific requirements, on the other hand, Tanzania, Malawi, and Kenya opted for off-the-shelf systems. It is important to note that a determining factor in the success of the implementation is not in the type of system but rather in the complexity of the system (Hendriks, C. J., 2013).

Inadequate staff with required IT knowledge, skills and experience cannot be easily controlled by training and hiring. A well-developed salary structure and terms of employment in the public sector should be developed to make them attractive enough for them to compete with the private sector and to motivate individuals with the required information and technological skills (Chêne 2009).

Barry (2001) found that the level of complexity of IFMIS implementation for procurement is higher than other ICT-related government reforms due to the complication of public financial management system. Also, IFMIS implementation is quite a challenging task and requires multiple conditions to be satisfied for successful implementations of long-term sustainability. Even though ICT automates the tasks involved in performing procurement processes such as purchase requisitions, quotations, quotations analysis, and preparation of local purchase orders, deliveries and goods receipts, IFMIS programs change the way government information is captured, summarized and communicated and the benefits of these advances should not be underestimated.

Machakos County in the year 2015 dedicated itself to invest in ICT so as to increase the ICT coverage thus improving communication and implementation of IFMIS across the board. The Department of Public Service, Labour, and ICT in Machakos County was given a mandate to Collect, store, edit and disseminate information (Machakos County Integrated Development Plan, 2015). This was driven by a report in 2014 by Auditor General in Machakos County that stated, IFMIS had not been implemented in the county and manual cash books were still in use even when the County Government took over

from the non-operational Local Authorities. He recommended that the County should implement IFMIS and ensure they are operational as envisaged (Edward R.O., 2014).

2.6 Implementation Strategy and Performance of IFMIS

Kerzner (2013) defines implementation strategy as a systems approach to planning, scheduling, and controlling funds that go beyond managing the technical aspects of implementation. He suggests that there was the need to set up an adequate project implementation team, ideally comprising a well-experienced accountant, a project manager, a public finance economist, a logistics, training and IT-system experts. He recommended to set up a steering committee to oversee the process at the highest level, chaired by Minister of Finance who ought to meet regularly and produce minutes on issues and progress (Indeje & Zheng, 2013).

According to Bhatnagar (2004), there are high risks involved in implementing too many components of the reform at once. Practitioners believe that risks can be eliminated with a phased approach that basically focuses on government institutions in a consistent and flexible process (Ochara, 2010). Large IT-projects require substantial investments in equipment, training, and infrastructure, and involve high risks of delays and failure, because of the interdependency of the various project components. It is recommended to favor a pragmatic step-by-step approach to reform, based on a detailed assessment of existing conditions and needs. The process should, therefore, start with a comprehensive assessment of the current institutional conditions including an analysis of the current governance system, ICT-infrastructure, incentives structure, legal framework in place, and human resources available. The analysis should also cover the training needs and potential implementation challenges. The system should only be rolled out once it has been pre-tested with real data, to assess the way the chart of accounts, the software and integration processes, recording of the real transaction and producing report work in practice. The roll-out strategies should ensure that: reform is built around clear benchmarks and milestones; reform is divided into self-contained modules, and IFMIS implementation is broken down into definite steps (Odala & Gekara, 2015).

Kotze (2012) argues that implementation of IFMIS has led to the effect of existing knowledge and expertise that was developed over a significant period no longer exists. Officials not trained in the new systems, are uncertain regarding functional processes which may delay the implementation process and they make mistakes. The aspect of avoiding mistakes also leads to resistance towards IFMIS which may impact negatively on its successful implementation.

Brar (2010) argues that one of the major challenges in the implementation of IFMIS in developing countries is due to the inadequate capacity for system implementation at the sub-national level, such as regional and provincial governments. South Africa is not left out in this aspect for instance with its nine provinces and the emerging demand that the duplication of efforts with its result for skills and knowledge, of which a shortage already exists.

The reason as to why there is poor performance of IFMIS projects is simply because there is poor planning of the basic system functionality from the beginning (Kotze, 2012). Chêne (2009) states that IFMIS must be specifically designed with respect to conformity of accounting and financial management duties the system should execute. Some factors must be considered in order to know the type of systems that will be implemented, for example, off-the-shelf or custom-built systems that fit the requirements of the specific country. The key factor that leads to the success of the implementation is not in the type of system, (i.e. off-the-shelf or custom-built) but the density of the system (Diamond & Khemani 2006).

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

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

2.7 Theoretical Review

2.7.1 System Theory

In Systems theory, Elliot (1992) made a development by looking at related and interacting components, which work together to attain the desired purpose or set of objectives. Wang (2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating in the system can be termed as information. It can be said that information in this sense is something potentially perceived as representation, though not created or presented to serve that purpose. The drive for effectiveness and efficiency, therefore, leads to another need of safeguarding harmony and synergy between the human resource as the vital resource that is in charge of resources particularly and in a different case tool of trade, specifically modern ICT on the other hand so as to achieve the objectives of designated to secretarial management. This, as a result, calls for the need to understand the general scope of human resource and areas which are likely to bring about conflict in the course of interaction between the human resource and modern ICT. Information technology systems or "InfoTech" is the product of the combination of computer and communication technologies.

Information technology is a term that describes any technology that aims in producing, manipulating, storing, communicating, and/or disseminating information. Apparently, when speaking of information technology as a whole, it is important to note that the use of computers and information are involved (Mauldin, 1999).

The introduction of IFMIS has been adopted as a vital component of public financial change in most of the developing countries. However, experience shows that IFMIS projects tend to develop slowly in developing countries, as they face major institutional, political, technical and operational challenges. The commitment of the relevant authorities to financial reform objectives, ICT readiness, project management capability, sound project design, a phased approach to implementation, as well as adequate resources and human resource capacity allocated to the project (Chena, 2009).

2.7.2 Actor Network Theory

The scope of social studies of technology in general and ANT, in particular, has been evolving rapidly. Actor Network Theory is a critical social theory that was led by Callon (1986), Latour (1987), and Law (1987). Actor Network Theory originated from the field of science and technology research. Specifically, it was employed in the conceptualization of social interactions in networks, where both the material and the semiotic environments were integrated. Since ANT accounts for the semiotic environment, it was considered a type of grounded theory. Moreover, ANT is also related with situational theory, sociotechnical systems theory, symbolic interactionism, network theory and institutional theory (Garson, 2008). From a detailed research of social phenomena of information science, sociology, and political science, ANT explains how a technological innovation spreads. Actor Network Theory (ANT) tackles the challenge of uncovering “reality as transitional in its becoming, and as trajectories of creation” (Miettinen, 1997).

According to Doolin and Lowe 2002 Actor-network theory (ANT) is a Theory that renders everything as actors or actants and the relationships between those actors or actants, emerged in the fields of anthropology and sociology. Actor Network Theory offers a powerful critique of the “sociotechnical relationships” that critical IS research focuses on.

There is a specific aspect of ANT that makes it particularly applicable for the field of Information Systems Research. ANT does not agree that there is any difference between human and non-human entities at an ontological level. Since IS research majors with the interaction between humans, technologies and information systems, a theory that deals

with this sociotechnical divide by not accepting that such a divide exists in the first place leads to interesting possibilities (Doolin & Lowe 2002; Hanseth 2004; Tatnall & Gilding 1999).

Actor Network Theory recognizes that non-human actors play important roles in networks and are neither neutral nor fully controlled by the human actors but Information Systems Researchers should not mislead this by suggesting that non-human actors (IT) are more important than human actors as this results to techno-determinism that is totally in opposition to ANT (Mitev 2009).

2.7.3 DeLone and McLean Model of Information Systems Theory

To under pin DeLone and McLean's model in assessing the effect of IFMIS use in public sector, this research seeks to utilize DeLone and McLean (2003) introduced an update to their Information System success model. The main reforms concerned quality and service quality was included in the model. Indeed DeLone and McLean (2003, 23) note: "As discussed earlier, quality has three major dimensions: information quality, systems quality and service quality". They also added Intention to Use to the model. Finally, they removed Individual Impact and Organizational Impact and replaced them with Net Benefits; further, they added feedback loops to Intention to Use and User Satisfaction.

The model is interpreted by system quality (technical quality) and information quality (output quality) which affect both consumption and user satisfaction. The amount of consumption can affect user satisfaction and vice versa either positively or negatively. Use and user satisfaction are antecedents to individual impact which impact on the organization. Daoud and Triki, (2013) in their literature review identified Delone and McLean's model to be used in accounting information systems. Researchers went further and showed that this model is valid in one dimensional and can be applied in any accounting information systems context.

According to Zaiid (2012), many information researchers have supported the updated Delone and Mclean updated model. The same realized and encouraged the Government and Private Authorities to include measures for system use, system quality, information

quality, service quality, user satisfaction and perceived net benefits in their techniques of Information System.

The Government and corporate organizations are investing heavily in e-commerce applications which are internet based platform but faced with a situation on how to evaluate their success. The updated IS model has been adapted to come up with e-commerce IS success model Zaied (2012). IFMIS is an online system and hence qualify to be an e-commerce application. A lot of information can be borrowed from this where the primary system users are external customers or suppliers or the government employees. They use the system to make buying or selling and execute business transactions. The decisions made will impact the individual users, organizations and even the economy at large.

Updated Delone and Mc Lean model (2003) has six multidimensional factors which are used to evaluate the information success. According to (Petter, 2008) early attempts to define information systems performance were not successful due to the complex nature and multidimensional nature of information success. The model has been modified by Delone and McLean by replacing the constructs such as the organization and the individual impact with net benefits at multi-level analysis. This has made the model to be applied to whatever level of analysis considered by the researcher. System information and service quality usefulness satisfaction and the net benefit can be fit well in the evaluation of IFMIS performance. All the characteristics used in the system quality such as the flexibility of the system, reliability, response time, ease of use all qualify in evaluating IFMIS. Information quality which includes the system output such management reports should be accurate and relevant and understandable.

2.8 Conceptual Framework

Gallarza and Saura (2013) defined a conceptual framework as a virtual or written product, one that explains, either graphically or in narrative form, the main things to be studied- the key factors, concepts, or variables and the presumed relationships among them. According to Matten and Moon (2008), a conceptual framework is a diagrammatical research tool intended to assist the researcher to develop awareness and

understanding of the situation under scrutiny and to communicate this. A conceptual framework is mainly used in research to present possible courses of action or to present a preferred way to illustrate an idea or thought. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify research question and objectives (Van Kamp & De Hollander, 2003).

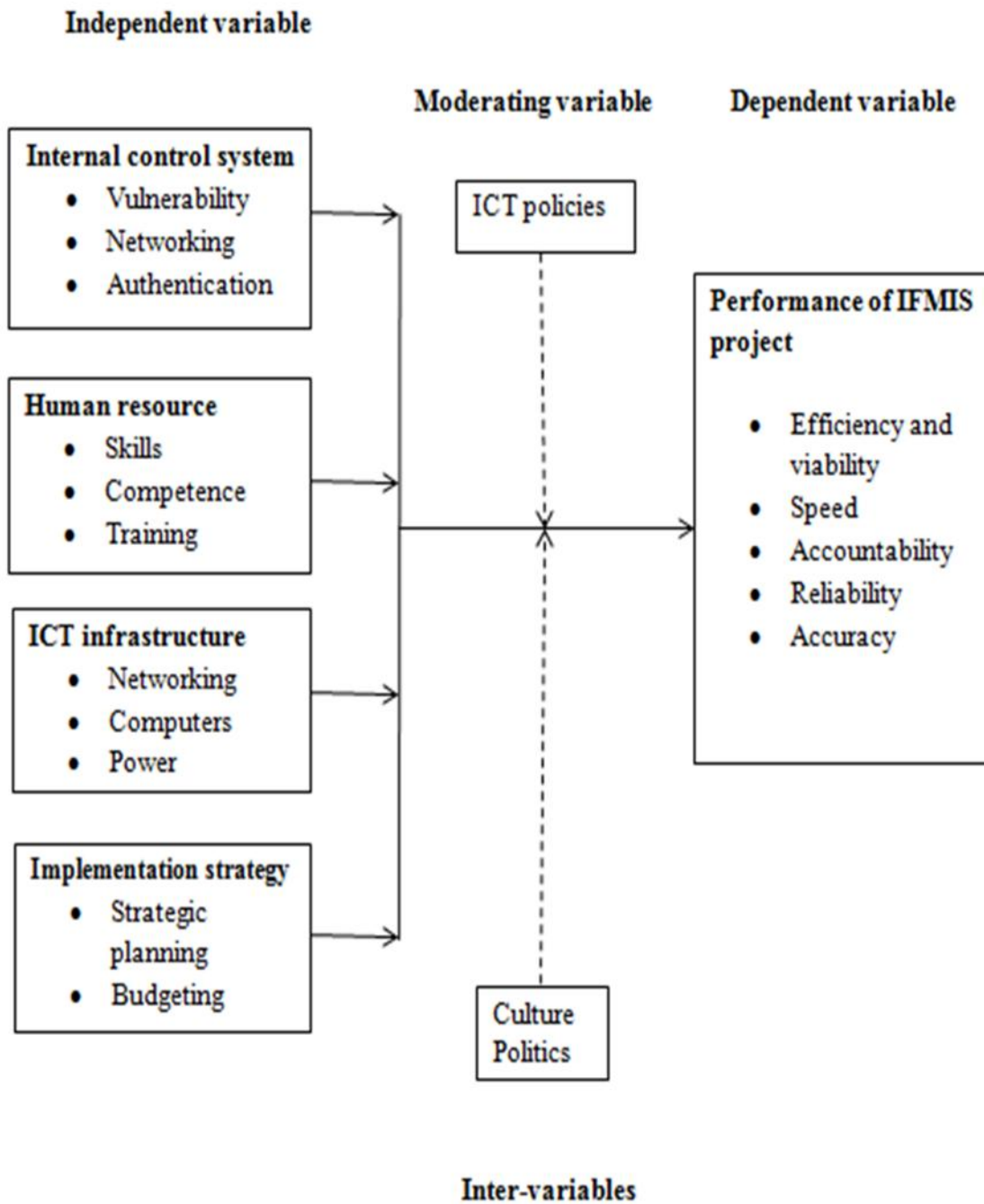


Figure 1: Conceptual Framework (source, author 2017)

2.9 Empirical Review

Barry (2001) investigated the guidelines for public expenditure management in the government ministries. The study established that the level of complexity of IFMIS is much higher than other ICT-based government changes due to the complication of public financial management system. It involves not only ministry of finance but also all line ministries and other multiple spending units. However, integrated public financial management system is quite a challenging task and requires multiple conditions to be satisfied for successful implementations of long term sustainability. The study recommended that the introduction of IFMIS system should not just be seen as a technology fix, since simply automating tasks that did not need to be carried out in the first place rather IFMIS implementation should be seen as a public financial reform that affects how things are done across government ministries and parastatals.

Muigai (2012) investigated the effect of integrated financial management information systems on the financial management of public sector. The study covered 42 government Ministries in Kenya where a surveyed was conducted to 30 accountants who were involved in the use of Integrated Financial Management Information Systems (IFMIS). Data was collected using both primary and secondary questionnaires and review of economic survey and statistical abstract. The findings from the research indicated that IFMIS had greatly contributed to improvement in financial management in Kenya.

Chebet (2013) also investigated the critical success factors in the implementation of the re-engineered integrated financial management information system in government ministries, Kenya. In addition, success of the implementation was as a result of co-operation among departments, adequate learning materials, the availability of experts, and adequate pre-testing of the system.

According to Diamond and Khemani (2008) in their study on introduction to financial management information systems in developing countries mention that all manner of reports can be generated. This includes cash flow projections, balance sheets, sources and distribution of funds, cost reports, returns on investment, aging of receivables payables, budget variances, and performance reports. Some systems have libraries consisting of

hundreds of standard reports. This information can be utilized when it comes to making decisions on ICT policies and the strategies of implementation of IFMIS at the county level. Reports also can also be tailored to meet the reporting requirements set by external agencies and international institutions, for instance, International Monetary Fund.

Hashim (2001) examined core functional requirements for fiscal management systems. The study used primary data which was collected from the respondents using a detailed questionnaire which had both open ended and close ended questions. The study established that financial management information systems are implemented and used successfully almost in all time in the commercial world. It was also established that the IFMIS system control ensures that before a decision to purchase, there is sufficient cash allocated for such an expense and the allocation matches the appropriate budget.

2.10 Summary of Gaps

Studies have adequately described the different drivers and barriers for implementation of IFMIS, but little work has been done in Kenya about the factors influencing the performance of IFMIS in the Kenyan government. The review of the relevant research in the field shows that scholars focused either on challenges and conducted their analysis from a single perspective or investigate them by concentrating at only one of the aspects of their application, effects and positive side of implementing IFMIS in public sector (Maake, 2007; Morris, 2006; Chene,2009; Sanwal 2007, Rose & Grant,2009). According to International Telecommunication Union (ITU), (2012) observes that a sound regulatory environment and stable institutions are the key factors driving ICT investment. Gerster Consulting, (2008) also recommended that African Governments and their international partners create and support favorable environments, consisting of both ICT policies with specific regulatory frameworks and an overall policy framework that promotes sound economic and political governance. However, these studies were not conducted in Kenya which is a unique field by itself. This study, therefore, sought to fill the gap by the factors influencing the performance of IFMIS project in Machakos County government.

2.11 Literature Summary

The devolved governments are introducing innovations in their organizational structures and practices, and in the ways in which they mobilize, deploy and utilize human, financial and ICT resources (United Nations 2015). This literature concentrates on Meta theory model and system theory. The study reviewed that IFMIS seeks to enhance confidence and credibility of the budget through greater comprehensiveness and transparency of information and allow a more standardized and realistic budget formulation across government while promoting better control over budget execution through the full integration of budget execution data.

Large IT-projects require substantial investments in equipment, training and infrastructure, and involve high risks of delays and failure, because of interdependency of the various project components. This study therefore intends to fill these pertinent gaps in literature by studying the selected independent variables on the relationship between challenging factors influencing the performance of IFMIS in the Kenyan government ministry of finance (Maake, 2007).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This Chapter specifies the nature of the research design and the population to be studied. It covers the research design, population, sampling frame, sample and sampling techniques, instruments, data collection procedure and data processing and analysis.

3.2 Research Design

Research design is the general plan of how one goes about answering the research questions (Creswell, 2003). The study adopted a descriptive research design. Bryman and Bell (2003) state that a descriptive design seeks to get information that describes existing idea or concept by asking questions relating to individual perceptions and attitudes. A descriptive research design is more investigative and focuses on a particular variable factor. Descriptive studies portray the variables by answering the questions; who, what, and how (Bernard, 2011). This design is analytical and often singles out a particular subject and goes into detail in describing them. This research design helped in gaining information about the factors influencing the performance of IFMIS project in Machakos County. It determined the relationship between the variables; internal control systems, ICT infrastructure, strategies of implementation, human resource capacity and performance of IFMIS.

3.3 Target Population

Kothari (2004) described population as an entire group of individuals or items in question in any field of inquiry and have a common characteristic. Mugenda and Mugenda (2003) indicated that target population should be explicitly and unequivocally defined; otherwise statements about the target population after the analysis of data will not be trustworthy. According to the report submitted by Kenya Revenue Authority 2015 and Auditor General 2015, Machakos has 90 officers in the Finance department, 70 in Accounts departments, 80 procurement officers, 20 Chief Officers and 40 Auditors (Edward, 2016). The study targeted 300 workers in the Finance and Accounts and procurement department in Machakos County.

3.4 Sample and Sampling Procedure

A sample is a sub-set or part of a target population on the other hand; sampling is a technique of selecting subjects or cases to be included in the study of the representatives of the target population (Mugenda & Mugenda, 2006).

3.4.1 Sample Size

A sample size is a set of observations drawn from a population by a defined procedure (Creswell, 2003). Ngechu (2004) drew attention to the importance of making a sampling frame after selecting a representative sample from the population frame the required number of subjects, respondents, elements or firms selected in order to make a sample. The sampling plan to be used describes the sampling unit, sampling frame, sampling procedures and the sample size.

Mugenda and Mugenda (2003) indicates that a sample size of 10% of the target population is large enough if only it allows for reliable data analysis and allows testing for significance of differences between estimates. Therefore, a proportionate sample size of approximate 30 respondents, which is 10% of the population, was selected using a stratified sampling from the identified target population.

Table 3.1: Sample size

Department	Number of officers	Sample Ratio (10%)	Sample Size
Procurement	80	0.1	8
Finance	90	0.1	9
Accounts	70	0.1	7
Auditors	40	0.1	4
Chief Officers	20	0.1	2
Total	300		30

3.4.2 Sampling Procedure

The study used stratified sampling method. This is because the study population is not homogenous as it comprised employees from different departments. This helped in identifying sub-groups in the target population and as a result the researcher studied the properties of each sub-group with ease. Stratified sampling method was therefore be used to ensure that the target population is divided into different homogenous strata and that each stratum is represented in the sample in a proportion equivalent to its size in the accessible population.

3.5 Research Instruments

The researcher used both primary and secondary data. The researcher used questionnaire as the research instrument. Kirakowski (2008) defines a questionnaire as a tool for the elicitation, recording, and collection of data. The study utilized the questionnaire that was developed for generating data on the main variables of interest from the target population in the study. The researcher also focused on the review of existing information about the research areas and collection of qualitative data through detailed interview from respondents who ought to be conversant with the subject through various interactions and experiences. The questionnaire used open and close ended questions. The closed-ended questions focused on a three and a five-point Likert scale where respondents were required to fill according to their level of agreement with the statements. The questionnaire was framed in accordance with the objectives of the study.

Secondary data was obtained from literature sources or data collected by other people for some other purposes. Review of existing and published literature such as journals articles, published theses and textbooks will be very useful. These sources will be reviewed to give insight in the search for primary information.

3.6 Validity and Reliability of the Instruments

To increase the validity and reliability of the data collected using questionnaires, the researcher based the questions solely on the objectives of the research. The researcher ensured that the questions are not leading and that they were both open and closed ended. The questionnaire design and questions were reviewed by peers and supervisors.

3.6.1 Validity of the Instruments

Validity refers to the extent to which the sample of the test variable represent the content that is designed to measure, that is, the instrument measures the characteristics or attributes that are intended to measure (Mugenda & Mugenda, 2008). Data reliability is crucial, but also it is important to ensure that it is true and accurate. Therefore if a measurement is valid, it means that it is also reliable (Creswell, 2003). The study adopted content validity which refers to the extent to which a measuring instrument gives adequate coverage of the topic under study. Content validity was attained by subjecting the data collection instruments to an evaluation team of IFMIS who provided their views and relevance of each item of the instruments and the experts indicate whether the item is relevant or not.

3.6.2 Reliability of the Instruments

Reliability refers to the extent to which a research instrument gives findings that are consistent each time it is administered to same variables (Mugenda and Mugenda, 2003). The measurement of reliability provides consistency in the measurement variables (Kumar, 2000). In order to test reliability, the 'split-halves' method was used. The standard minimum value of alpha of 0.7 is recommended Gupta (2004) as the minimum level for item loadings. Higher alpha coefficient values mean there is consistency among the items in measuring the concept of interest.

3.7 Data Collection Procedure

The researcher obtained permission from relevant authorities after the proposal approval and an introductory letter from The University of Nairobi department of Extramural Studies. A self-administered questionnaire was given to each respondent and picked later. The questionnaire consisted of both open ended and closed ended questions. Where additional information was required by the study, semi-structured interviews were conducted. The study used both qualitative and quantitative data from the research. Qualitative data was applicable since meanings were based on expressions through words and analysis was conducted through the use of content analysis. Quantitative data was applied because meanings were derived from numbers and analysis that were conducted through the use of statistical diagrams and tables. Secondary data was obtained through

the desk review of relevant records and information obtained on IFMIS performance from the County Government for the last nine years from 2007 to 2016. This information was coded and analyzed with the help of statistical package for social sciences (SPSS) software package.

3.8 Data Analysis Technique

The data that was collected was analyzed through quantitative and qualitative methods with the help of Microsoft Excel and SPSS. Data processing was mainly carried out through editing, coding, and classification. Content analysis was used to analyze the qualitative data whereas simple statistical methods and correlation analysis were used to analyze the quantitative data by the aid of SPSS Software and Microsoft Excel. Pearson correlation and regression analysis were applied to establish the relationship of the variables at 5% level of significance. Data results were presented in tables to give a clear picture of the findings.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter seeks to describe the data analysis and interpretations of the findings. The general objective was to establish the factors influencing the performance of Integrated Financial Management Information Systems project in the public sector in Machakos County. The sample size was 30 respondents working in Machakos County who filled questionnaires administered to them.

Respondents from the research were from the Finance, Accounts, Procurement, Auditing Department and Chief Officers. 27% of the respondents were procurement officers, 30% were finance officers, 23% were accounts officers, 13% were auditors, and 7% were chief officers. The research was carried out to look into the various aspects that influence the performance of IFMIS.

4.1 Response Rate

The sample size of this study was 30 respondents working in the county that is procurement, auditing, finance and accounts departments. All the 30 respondents were administered with questionnaires and thorough follow up was done on filling the questionnaires. All the 30 questionnaires were fully filled and returned for analysis and as a result, this translated to 100% response rate. This response rate was good and representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50%-59% is fair for analysis and reporting; a rate of 60%-69% is good, and a response rate of over 70% is excellent.

4.2 Descriptive analysis

This research adopted a descriptive analysis which entailed the use of frequencies, percentages, mean and standard deviation. Descriptive analysis enables the use of both qualitative and quantitative data. Descriptive analysis is important when trying to give a picture of a situation the way it is without any manipulation of existing variables.

4.2.1 Influence of Internal Control System on Performance of IFMIS

The main objective, in this case, was to establish how internal control system influence performance of IFMIS in Machakos County. The vulnerability of systems, networking, and employment of recent technology, transparency and accountability and authentication of the systems were deemed to influence the performance of IFMIS.

The respondents were asked to respond on a 5 point Likert scale and indicate the extent to which they agreed with the statement according to the various aspects.

Table 4.1 : Frequency Distribution Table on Influence of Internal Control System on IFMIS

Influence of internal control systems on performance of IFMIS	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Mean	Std deviation
Vulnerability of systems	13.3	13.3	10.0	16.7	46.7	3.70	1.512
Networking and employment of recent technology	33.3	50.0	6.7	10.0	0	1.93	0.907
Transparency and accountability of the systems	60.0	23.3	6.7	3.3	6.7	1.73	1.172
Auditable financial statements from the ministry	6.7	63.3	16.7	13.3	0	2.37	0.809

Table 4.1 shows that, 46.7% of the respondents strongly disagreed that IFMIS has enhanced performance by minimizing Vulnerability of systems in the public sector shown by a mean score of 3.70. 16.7% disagreed with the statement, 10% of the

respondents were neutral on minimization of vulnerability, and 13.3% and 13.3% of the respondents strongly agreed and agreed to the statement respectively.

Findings also show that, 50.0% of the respondents agreed that networking and employment of recent technology had improved the performance of IFMIS shown by a mean score of 1.93. 33.3% and 6.7% of the respondents strongly agreed and were neutral respectively on the performance of IFMIS influence by networking and implementation of technology.

Table 4.1 further shows that, 60.0% of the respondents strongly agreed that IFMIS can trace all the stages of a transaction process and as a result enhancing transparency and accountability of the process shown by a mean score of 1.73. 23.3% of the respondents agreed, 6.7% were neutral while 3.3% and 6.7% of the respondents disagreed and strongly disagreed respectively on the statement.

Findings from Table 4.1 show that, 63.3% of the respondents agreed that IFMIS had provided auditable financial statements from the ministry due to authentication of the systems shown by a mean score of 2.37. Findings indicate that 6.7% of the respondents strongly agreed, 16.7% of the respondents were neutral. On the other hand, 13.3% of the respondents disagreed on the statement.

These findings indicate that majority of the respondents agreed that internal control systems influence the performance of IFMIS only that there were the issues of vulnerability that influenced IFMIS in a negative way. Respondents also agreed that networking and recent technology influenced performance of IFMIS which was measured by transparency, accountability and authentication of systems.

4.2.2 Influence of Human Resource Management on Performance of IFMIS

The main objective, in this case, was to determine how human resource management influence performance of IFMIS in Machakos County. Variables that tend to influence the performance of IFMIS were human resource skills, training of workers, the competence of employees and management, competence satisfaction to clients.

The respondents were asked to respond on a 5 point Likert scale and indicate the extent to which they agreed with the statement according to the various aspects.

Table 4.2 : Frequency Distribution Table on Influence of Human Resource Management on IFMIS

Influence of Human Resource management on performance of IFMIS	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Mean	Std deviation
Employment of staff with the right skills	40.0	46.7	10.0	3.3	0	1.77	0.774
Competence of employees and management	43.3	40.0	10.0	6.7	0	1.80	0.887
Training of Human Resource	46.7	40.0	10.0	3.3	0	1.70	0.794
Clients appreciation due to the competence of Human Resource	13.3	43.3	36.7	6.7	0	2.37	0.809

Findings from Table 4.2 shows that, 40.0% and 46.7%, shown by a mean score of 1.77 of the respondents strongly agreed and agreed respectively, that employment of staff with the right skills and know-how had improved the performance of IFMIS. Findings also show that 10% of the respondents were neutral while 3.3% of the respondents disagreed with the statement.

Table 4.2 also shows that, 43.0% and 40.0% of the respondents strongly agreed and agreed respectively, that competence of employees and management had enabled proper and reliable results from IFMIS shown by a mean score of 1.80. Also, 10% of the

respondents were neutral as opposed to 6.7% of the respondents who disagreed with the statement.

Findings from Table 4.2 also show that, 46.7% and 40.0% of the respondents strongly agreed and agreed respectively, that training of workers had improved the reliability and confidence in financial operations of IFMIS shown by a mean of 1.70. Findings also indicate that, 10% of the respondents were neutral while 3.3% of the respondents disagreed with the statement.

Table 4.2 also shows that, 43.3% of the respondents agreed that clients appreciated the competence of the sector due to the implementation of IFMIS shown by a mean of 2.37. Findings further show that, 36.7% of the respondents' opinion was neutral, 13.3% of the respondents strongly agreed on the statement. On the other hand, 6.7% disagreed on the statement.

It is clear from the findings on Table 4.2, that Human Resource Management influence performance of IFMIS. Variables such as: employees with the right skills, training of workers and competence of employees and management, influence performance of IFMIS by a very high percentage.

4.2.3 Influence of ICT Infrastructure on Performance of IFMIS

The main objective was to examine the influence of ICT infrastructure on the performance of IFMIS in Machakos County. Factors that were put into consideration, in this case, were: the introduction of new ICT infrastructure, use of computers and elimination of manual systems in finance and accounting, power installation and capacity of computers, accessibility and software's that support IFMIS.

The respondents were asked to respond on a 5 point Likert scale and indicate the extent to which they agreed with the statement according to the various aspects.

Table 4.3 : Frequency Distribution Table on Influence of ICT Infrastructure on IFMIS

Influence of ICT infrastructure on performance of IFMIS	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Mean	Std deviation
Influence due to introduction of ICT infrastructure	20.0	36.7	33.3	6.7	3.3	2.37	0.999
Elimination of manual systems in finance and accounting	40.0	40.0	13.3	3.3	3.3	1.90	0.995
IFMIS performance with respect to power installation	26.7	60.0	6.7	6.7	0	1.93	0.785
Adequate computer and software accessibility	50.0	23.3	20.0	3.3	3.3	1.87	1.074

Table 4.3, shows that 20% of the respondents strongly agreed, 36.7% and 33.3% of the respondents agreed and neutral respectively, that introduction of ICT infrastructure that supports IFMIS functions had led to total cost and overhead costs shown by a mean of 2.37. Also, 6.7 % of the respondents were neutral while 6.7% of the respondents disagreed and 3.3% strongly disagreed on the statement.

Findings on Table 4.3 show that, 40% of the respondents both agreed and strongly agreed, shown by a mean of 1.90, that the use of computers to apply IFMIS and elimination of manual systems in finance and accounting had improved the performance of IFMIS in the county. Also, 13.3% of the respondents were neutral while 3.3% both disagreed and strongly disagreed on the statement.

Findings also showed that 60% of the respondents, shown by a mean of 1.93, agreed that development of infrastructure which led to power installation at the public sector had enhanced efficiency and effectiveness of IFMIS. On the other hand, 26.7% of the respondents strongly agreed on the statement while 6.7% of the respondents' opinion was both neutral and strongly disagreed with the statement.

Table 4.3 shows that, 50% of the respondents, shown by a mean of 1.87, strongly agreed that there were enough computers, accessibility, and software to enable the users to perform their roles effectively thus improving the performance of IFMIS in the organization. Also, 23.3% of the respondents agreed, 20% had a neutral opinion while 3.3% both disagreed and strongly disagreed on the statement.

The findings show that ICT infrastructure employment influences the performance of IFMIS in the public sector. Elimination of manual systems improved the overall performance of financial processes. The power availability had enhanced the efficiency and effectiveness of performance IFMIS, proper and enough infrastructures was also a key factor that determined the performance of IFMIS.

4.2.4 Influence of Implementation Strategy on Performance of IFMIS

The major objective here was to establish how the level of implementation influences performance of IFMIS in the county. Key variables included: strategic planning, budgeting process, confidence and credibility of the budget and timely and accurate data for budget management and decision making.

The respondents were asked to respond on a 5 point Likert scale and indicate the extent to which they agreed with the statement according to the various aspects.

Table 4.4: Frequency Distribution Table on Influence of Implementation Strategy on IFMIS

Influence of Implementation Strategy on IFMIS performance	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Mean	Std deviation
Strategic planning during implementation influence performance of IFMIS	6.7	53.3	33.3	6.7	0	2.40	0.724
Implementation strategy has influenced IFMIS budgeting process	36.7	50.0	6.7	3.3	3.3	1.87	0.937
There is Confidence and credibility of IFMIS budgeting	53.3	33.3	10.0	3.3	0	1.63	0.809
Timely and accurate data has influenced the performance of IFMIS	20.0	46.7	30.0	3.3	0	2.17	0.791

Table 4.4 shows that, 53.3% of the respondents, shown by a mean of 2.40, agreed that Strategic planning facilitates decisions and actions that guide implementation of the IFMIS. Findings show that, 6.7% of the respondents strongly agreed, 33.3% had a neutral opinion while 6.7% disagreed on the statement.

Findings from Table 4.4 also showed that 50.0% of the respondents agreed that budgeting process had been made easier due to the implementation of IFMIS in the county shown by a mean of 1.87. Findings also show that, 36.7% strongly agreed, 6.7% had a neutral opinion while 3.3% of the respondents both disagreed and strongly disagreed on the statement.

Table 4.4 shows that, 53.3% of the respondents strongly agreed that IFMIS seek to enhance confidence and credibility of the budget through greater comprehensiveness of information shown by a mean of 1.63. Further findings indicate that 33.3% of the respondents agreed on the statement, 10% had a neutral opinion while 3.3% disagreed on the statement.

Findings also show that, 46.7% of the respondents agreed that timely and accurate data for budget management and decision making has credited the performance of IFMIS shown by a mean of 2.17. Also, 20% of the respondents strongly agreed, 30% had a neutral opinion as opposed to 3.3% of the respondents who disagreed on the statement.

It is clear from the above findings that implementation strategy has an influence on the performance of IFMIS. There was the credibility of systems' results, proper budgeting, timely and accurate data.

4.3 Inferential analysis

Inferential analysis uses statistical tests to find out whether an outcome of a pattern we observe is as a result of chance or due to the program or intervention effects. Research often uses inferential analysis to determine if there is a relationship between an intervention and an outcome as well as the strength of that relationship (Trochim, W. M., & Donnelly, J. P., 2001). The inferential analysis used was Pearson correlation which shows the degree of association between the dependent variable and the independent variables (0.01 significance level). The independent variables include ICT infrastructure, internal control system, implementation strategy and human resource management. The dependent variable was the performance of IFMIS in Machakos County. Correlation analysis is a technique used to indicate the nature and degree of the relationship existing between one variable and another (Cohen, J., Cohen, P., West, S. G., & Aiken, L. S., 2013).

Table 4.5: Relationship between IFMIS Performance and Internal Control Systems, Human Resource Management, ICT Infrastructure and Implementation Strategy

Variables	Coefficient correlation	Significance (2-tailed)
Dependent variable		
Performance of IFMIS		
Independent variables		
Internal control systems	-0.003	0.988
Human resource management	0.099	0.604
ICT infrastructure	0.768	0.000
Implementation strategy	0.665	0.000
N= 30		

Table 4.5 shows that a negative correlation of -0.003 was found to exist between performance of IFMIS and internal control systems with a significance of 0.988 which shows significance due to the inverse relationship between the two variables. This means that the less attention by the finance department in Machakos county was given to factors such as vulnerability of systems, networking and employment of recent technology, transparency and accountability and auditable financial statements the more IFMIS was influenced negatively by a great extent. This is a clear indication that the players in internal control systems are very vital. The findings also show that there was a positive correlation of 0.099 between human resource management and performance of IFMIS with a significance of 0.604. This implies that there should be an encouragement of employee training, employment of staff with the right skills and competence by the human resource department of Machakos County. There was also a positive correlation of 0.768 between ICT infrastructure and performance of IFMIS with a significance of 0.000. Aspect such as use of computers to eliminate manual systems, development of power and supply of related hardware with proper software in the county greatly contributed to the performance. Findings finally show a positive correlation of 0.665 between implementation strategy and performance of IFMIS with a significance of 0.000. This implies that strategic planning, timely and accurate budgeting process plays a key role in IFMIS performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study was carried to establish the factors influencing the performance of Integrated Financial Management Information Systems project in the public sector in Machakos County. The study had four objectives; to establish how internal control system influence performance of IFMIS in the public sector, to determine how human resource management influence performance of IFMIS in the public sector, to examine the influence of ICT infrastructure on the performance of IFMIS in the public sector and finally to establish how the level of implementation influence performance of IFMIS in the public sector. This chapter, therefore, gives a presentation of the summary of findings of the four objectives mentioned above, the conclusions and recommendations made based on findings.

5.2 Summary of the Findings

Findings from the research confirm that there was an influence of IFMIS in Machakos County signified by the individual independent variable analysis. There was an improvement in aspects such as efficiency, speed, accountability, reliability, and accuracy of financial records and management. Human resource management has improved significantly to facilitate operation of IFMIS. Findings show that skills, competency, and training of human resource have improved the performance of IFMIS. Despite the high cost of ICT infrastructure in ensuring enough and up to date computers, networking and power facilitation there has been an improvement of IFMIS regarding efficiency and speed. Strategic planning and budgeting have played a major role in ensuring the performance of IFMIS through proper implementation strategy. Financial reporting was also reported to have significantly improved, and IFMIS was found to have been very effective in enhancing financial reporting at Machakos County. Although there were cases of ineffectiveness in internal controls, IFMIS had increased the level of internal controls. Vulnerability and authentication were reported to be major factors that led to the ineffectiveness in internal control systems.

5.3 Conclusions of the Findings

This study concludes that there is an influence in the performance of IFMIS in Machakos County by independent variables. This is made evident through the correlation analysis which was conducted. Therefore, Internal Control Systems, Human Resource Management, ICT infrastructure and level of implementation strategy are important factors that greatly influence the performance of IFMIS.

The study further concludes that internal control systems has been observed to enhance the vulnerability of systems. This agrees with Hendricks (2012) who submits that a well-designed IFMIS can offer some features that may be of help in detecting excessive payments, fraud, and theft.

5.4 Recommendation of the Findings

This study has evidently shown internal control systems, Human resource management, ICT infrastructure and level of implementation strategy as independent variables have led to the significant performance of IFMIS in Machakos County. All departments should be advised to embrace proper Human resource management that is training, capacity, through motivation by rewarding employees as they play a very vital role in the performance of IFMIS. Development ICT infrastructure and level of implementation strategy should also be embraced since they contribute to a reputable performance of IFMIS and as a result proper financial management.

The researcher recommends that internal control systems in relation to vulnerability and authentication of the system should be properly scrutinized and monitored to avoid the negative influence on IFMIS. This will help build confidence in financial management which reflects county government performance and perception by the county tax payer.

5.4.1 Recommendations for Further Studies

This study sought to establish the factors influencing performance of IFMIS in Machakos County. Much as the study established its objective, it mainly focused on One County that is Machakos County. Therefore, there is need to carry out the study using many other Counties in Kenya in an attempt to compare the findings. Therefore, there is need to carry out a similar study with different variables and also in different counties to establish their influence on performance of IFMIS.

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APPENDICES

Appendix I: Letter of Introduction

Dear respondent,

I am student taking Masters of Arts in Project Planning and Management at the University of Nairobi. I have been privileged to carry out a study on the factors influencing performance of Integrated Financial Management Information Systems (IFMIS) project in the public sector in Machakos County. I am using the attached questionnaire to collect information for the study. It is my humble request that you fill the questionnaire, providing the correct and relevant information to facilitate the study. Please use the space provided to fill in the information required as objectively and honestly as possible. The information provided will be treated with strict confidentiality for the purpose of this study only.

Thank you.

Yours Faithfully,

Salome Kioko

APPENDIX II: Questionnaire

SECTION 1: GENERAL INFORMATION

1) Gender

Male [] Female []

2) Age Bracket

18-25 years [] 26-36 years []

36-45 years [] 46-55 years [] Over 56 years []

3) Academic Qualifications

PhD Level []

Masters Level []

First Degree []

Diploma []

4) How long have you been working in your department

1- 2 Yrs []

2-4 Yrs []

4-6 Yrs []

6- 10 Yrs []

10 -15 Yrs []

Above 15 Yrs []

SECTION II: Internal Control System and IFMIS Project in the Public Sector

Please indicate whether you agree or disagree with the following statements by using a

tick () where necessary. Scale of 5-1; 1=strongly agree 2 = Agree 3= Neutral

4= Disagree 5= Strongly Disagree

		1	2	3	4	5
5	IFMIS has enhanced performance by minimizing Vulnerability of systems in the public sector					
6	Networking and employment of recent technology has improved the performance of IFMIS					
7	IFMIS can trace all the stages of a transaction process hence enhancing transparency and accountability of the process due to proper networking					
8	IFMIS has provided auditable financial statements from the ministry due to authentication of the systems					

SECTION III: Human resource and IFMIS Project in the Public Sector

Please indicate whether you agree or disagree with the following statements by using a tick () where necessary. Scale of 5-1; 1= Strongly agree 2 = Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		1	2	3	4	5
9	Employment of staff with the right skills and know how has improved the performance of IFMIS					
10	Competence of employees and management has enabled proper and reliable results from IFMIS					
11	Training of workers has improved the reliability and confidence in financial operations					
12	Clients appreciate the competence of the sector due to implementation of IFMIS					

SECTION IV: ICT and IFMIS Project in the Public Sector

Please indicate whether you agree or disagree with the following statements by using a tick () where necessary. Scale of 5-1; 1=Strongly agree 2 = Agree 3= Neutral
 4= Disagree 5= Strongly Disagree

		1	2	3	4	5
13	Introduction of ICT infrastructure that support IFMIS functions has led to total cost and overhead costs					
14	Use of computers to apply IFMIS and elimination of manual systems in finance and accounting has improve the overall performance of the sector					
15	Development of infrastructure which has led to power installation at the public sector has enhanced efficiency and effectiveness of IFMIS					
16	There are enough computers, accessibility and software's to enable the users perform their roles well thus improving performance of IFMIS in the organization.					

SECTION V: Level of Implementation and IFMIS Project in the Public Sector

Please indicate whether you agree or disagree with the following statements by using a tick () where necessary. Scale of 5-1; 1= Strongly agree 2 = Agree 3= Neutral
4= Disagree 5= Strongly Disagree

		1	2	3	4	5
17	Strategic planning facilitate decisions and actions that guide implementation of the IFMIS					
18	Budgeting process has been made easier due to the implementation of IFMIS in the public sector					
19	IFMIS seek to enhance confidence and credibility of the budget through greater comprehensiveness of information					
20	Timely and accurate data for budget management and decision making has credited the performance of IFMIS					