THE RELATIONSHIP BETWEEN INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM AND PERFORMANCE OF GOVERNMENT MINISTRIES IN KENYA

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MARCH 2019
DECLARATION

Declaration by candidate:

This research project is my original work and as not been presented for a degree in any other University

Signature: .................................. Date: .............................................

Ray Ayim Otieno
D53/CTY/PT/27824/2014

Declaration by supervisor:

I confirm that the work in this research project was done by the candidate under my supervision

Signature: .................................. Date: .............................................

Supervisor:

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Senior Lecturer
Department of Computing & Information Technology
Kenyatta University
DEDICATION

I dedicate this research project to my loving parents Mr. and Mrs. Ayim, my siblings Alvin, Florence and Victor for their encouragement, motivation, financial and psychological support throughout my study period, my supervisor Dr. John Kandiri for his tireless efforts in guidance, support, supervision and patience and last but not least my friends. May the Almighty God bless you All.
ACKNOWLEDGEMENT

I sincerely thank the Almighty God for taking me through my academic journey successfully by giving me the strength, courage and patience during my entire research period. All the Glory and honor is to you Lord.

To my parents, who encouraged me and supported me both mentally and financially. And finally a special thanks to my supervisor Dr. John Kandiri, for his valued guidance, support and direction.
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# LIST OF ABBREVIATIONS AND ACRONYMS

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
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<tr>
<td>CIPD</td>
<td>Computer Industry Development</td>
</tr>
<tr>
<td>DCs</td>
<td>Developing Countries</td>
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<tr>
<td>GL</td>
<td>General Ledger</td>
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<tr>
<td>GHRIS</td>
<td>Government Human Resource Information System</td>
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<tr>
<td>GOK</td>
<td>Government of Kenya</td>
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<tr>
<td>ICTs</td>
<td>Information communication Technology</td>
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<tr>
<td>IFMIS</td>
<td>Integrated Financial Management Information System</td>
</tr>
<tr>
<td>IPPD</td>
<td>Integrated Payroll and Personnel Database</td>
</tr>
<tr>
<td>KRA</td>
<td>Kenya Revenue Authority</td>
</tr>
<tr>
<td>PMIS</td>
<td>Project Management Information System</td>
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<tr>
<td>SIBET</td>
<td>Soft Issues Bid Development Potential</td>
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<td>TAM</td>
<td>Technology Acceptance Model</td>
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<td>UN</td>
<td>United Nations</td>
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## OPERATIONAL DEFINITION OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Government Ministries:</strong></td>
<td>Is a governmental organisation, headed by a minister, that is meant to manage a specific sector of public administration.</td>
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<tr>
<td><strong>Information and Communication Technology:</strong></td>
<td>It includes both traditional and non-traditional, integration of voice-images and telephone-mobile using computers of networked computers.</td>
</tr>
<tr>
<td><strong>ICT Infrastructure:</strong></td>
<td>IT infrastructure is the combination of all the computer components i.e. hardware and software, human capital and network resources that allows an organization to provide ICT solutions and services to both internal and external customers.</td>
</tr>
<tr>
<td><strong>Information Systems (IS):</strong></td>
<td>Is the combination of human input, technology and processes to achieve a given objective.</td>
</tr>
<tr>
<td><strong>Information Quality:</strong></td>
<td>Represents the desirable output of the system</td>
</tr>
<tr>
<td><strong>IFMIS:</strong></td>
<td>It is an automated system that is used for public financial management. It interlinks planning, budgeting, expenditure management and control, accounting, audit and reporting.</td>
</tr>
<tr>
<td><strong>System Quality:</strong></td>
<td>It is the desired characteristics of an e-commerce system such as usability, availability, reliability, adaptability and online response time.</td>
</tr>
<tr>
<td><strong>Service Quality:</strong></td>
<td>It refers to the support given the service provider whether delivered by the IS unit, organization or outsourced from an internet provider.</td>
</tr>
<tr>
<td><strong>Performance:</strong></td>
<td>Is the achievement of a given set of standards, i.e. cost measures, efficiency, and effectiveness.</td>
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ABSTRACT

IFMIS has been promoted as a core component of public financial reforms in many developing countries. The study sought to establish the relationship between IFMIS and the performance in government ministries. The researcher was guided by the following three questions to assess if system quality of IFMIS has impacted the performance of government ministries in Kenya, to assess Information quality after implementation of IFMIS in Government Ministries in Kenya and to evaluate service quality of IFMIS in relation to government performance in Kenya. The study was hinged on the systems theory, Technology acceptance model theory and DeLone and McLean’s Model. Descriptive research design was used in the study, this is because it captures the current state of affairs. The population of the study was 350 staff at the national treasury. Descriptive research design was used in the study, this is because it captures the current state of affairs. The study collected primary data using a questionnaire administered through drop and pick later method to respondents in IFMIS department. Analysis of the results was done based on the research objectives using descriptive statistical tools such as frequency tables, percentages, mean and standard deviation with the aid of SPSS software.

The findings indicated that the independent variables which were system quality, information quality and service quality had a significant influence on government performance. The study revealed service quality and system quality had the highest performance therefore their role in government performance is very important and should be given more attention. The study found out that information quality plays a key role in performance of ministries in the government. Also it was recommended that the government and other key stake holders needed to invest in robust infrastructure. The study recommended that the government through its various ministries should effectively implement IFMIS for quick and transparent transaction.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Over the past decade developing countries (DC) in Africa have invested heavily in implementing a wide range of ICT applications and infrastructure in order to improve Government performance (Ssemaluulu, 2012). According to the UN nations are classified using Computer industry development potential as an advance or less developing. Advance countries are countries are: The United States of America, Canada, Western European countries, least developed countries include, Brazil, India, and Mexico etc. This is as a result of growing concern in the quality and management of public funds. For all the countries mentioned, the use of ICT for government operations is increasing both in investment and visibility with a high number of ICT related project’s been launched (Wainaina, 2014).

Kenyan tax payers and other stakeholders have been concerned for a long time regarding effective service delivery in the public sector. Poor quality of service, has a negative effect on the quality of life of the citizen and the country’s development agenda. A country’s development agenda and the standard of life of her citizens is dependent on service delivery in the public sector (Kobia, 2006).

An IFMIS system is the bridge between provision of service between public and private sector (Dorotinsky, W., & Matsuda, 2003). This gives the government the obligation of providing services to meet a variety of citizen needs. For some aspects in government service provision, manual processing is still necessary for example, some stages of complex contracts such as projects or tasks can be difficult to reduce to standard formats and may require human intervention. However, research has proved that there are possibilities for a large part of government services to be transferred to an electronic database. The way private institutions
receive services, they need to keep their plants running and their customers satisfied, so must the government. However, there are different ways which governments and businesses obtain services (Diamond & Khemani, 2005). In the past years, the government system in Kenya has undergone significant developments. As a result of this the government of Kenya started the process of coming up with a tool that will address these concerns.

1.1.1 Performance of Government Ministries

Government ministries in Kenya have traditionally been less competitive due to poor financial management characterized by: Poor system design and lacked critical functionality, controls, automated bank reconciliation, audit trails and systems documentation; Lack of system data checks and controls; Poor response time; Limited ability to generate reports; Weak access security; and Lack of remote access. Traditionally, financial management among government ministries aimed at avoiding wastage and extravagant spending, and especially, the loss of resources through possible fraud, irregularity or improper spending. But the rise of New Public Management, associated with neo-liberalism, has significantly reduced the emphasis given to public financial management regularity and probity.

According to Rosen (2012), the world of financial management, and for a country to be developed, it must be built an effective economy. Public financial management concerns the taxing and spending of government, which in turn influences resource allocation and income distribution. The spending portion covers the budget cycle, including budget preparation, internal controls, accounting, internal and external audit, procurement, and monitoring and reporting arrangements. In the public institutions, financial management is one of the fields which must be developed in order to build the country’s economy and fighting the waste of resources. Public finances to be well managed, there must have a well-designed integrated financial management information systems in order to achieve their objectives.
1.1.2 Integrated Financial Information systems

Integrated financial management information system is a real time ICT based automation system that track all financial transactions in government ministries, and summarized the financial report for decision making purposes (Hendriks 2012). IFMIS is a complete system that includes accounts receivable and payable, cash management, commitment control, debt, assets and liability management, procurement and purchasing, revenue management, payroll and human resource management (Ministry of Finance, 2011). One of the main feature of IFMIS is that it’s an open system, i.e. It can be linked to other digital systems such as the KRA’s I-tax system, CS-DRMS, GHRIS, PMIS, GPA and SOA, the reason behind this integration with other system it is to overcome the risk of error and fraud in government institutions and other stakeholders (Hendriks 2012).

IFMIS end users can access the system and generate the information they need and to perform the various different functions and tasks, by recording information into the system that uses common values (Wainaina, 2014). All manner of information can be extracted from the system database which include: balance sheets, sources and uses of allocated funds, cost reports, returns on investment, receivables and payables report, cash flow, budget variances, and performance reports of all types. The systems has libraries consisting of hundreds of standard reports (Kimwele, 2011).

Managers can use this information in many ways such as planning and formulating budgets, assessing results against given budgets and plans, manage cash balances, track the status of Debts and receivables, monitor the performance of specific department or units and make revision and adjustment as necessary. Information generated can also be tailored to meet the reporting requirements set by external agencies and international bodies such as the World Bank and International monetary funds (IMF).
1.1.3 Government Ministry in Kenya

The government of Kenya is founded from the constitution of Kenya 2010, and its main aim is to protect and ensure the wellbeing of Kenyan citizens. The government has well established structures i.e. administrative and financial structures which work interpedently (Mutui, 2014). The government ensures that there is accountability openness and efficiency in managing public resources. The structure in place also ensures that service delivery to both internal and external stakeholders is at its highest standard and that there is easy access to information by the public. To achieve this much attention is given towards the best practices and operations of the state offices (GoK, 2005).

The Government of Kenya, which consists of the presidency, his deputy and 22 ministries headed by cabinet secretaries and other constitutional offices which are in charge in the day to day running of government activities. The major functions of those ministries include formulating both financial and economic policies, ensuring that they have sound fiscal and monetary policies that will support socioeconomic development to the people of Kenya.

Government ministries contributes in the preparation of the yearly national budget of Kenya (Mutui, 2014). Performance, management and service delivery of government ministries in Kenya is major concern to the tax payers. This has forced the ministries to undergo major transformation in line with the current global trends. The earlier system that the government was using in managing public resources was amorphous and creating an enabling environment for massive corruption and unaccountability.

The introduction of integrated financial management information system (IFMIS) in government offices was a very positive idea to drive e-government as a major reform measure. This is if its fully adopted, will ensure transparency, efficiency and accountability to its fullest with adequate structures and resources deployed to drive the course (Owegi and
Aligula, 2006). Though in 2011 there was a presidential directive that all ministries, state corporations and county governments to adopt IFMIS in their operations, the level of adoption is still a major concern as most government institutions haven’t fully complied with the directive (Biwott, 2015).

1.1.4 Integrated Financial Management Information System Implementation and Government Ministries Performance

In the year 2003, the government launched IFMIS, through the ministry of finance, however, it had limited modules with other processes remaining manual. The development of IFMIS which started two decades ago and the deployment in the national government started in 2003 and in 2014 for the county governments. In the year 2000, a joint report (the national ICT master plan 2001-2008) was launched by both the Ministry of Finance and the Ministry of Planning and economic development, the report mentioned the weaknesses experienced from the then system that was being used, Soft Issue Bid Evaluation Tool. It was from this report that the idea of purchasing and implementing IFMIS in Kenya was born.

In 2003, after a very competitive bidding process the Kenyan government awarded the tender to an Egypt firm to supply the Oracle based system with the budgeting, cash management, accounts payable, accounts receivable, general ledger, purchase ordering, the financial analysis and financial statement generator modules being included in the system.

In 2011/12, the ministry of finance, formulated the first phase of IFMIS re-engineering, strategic plan 2011-2013 which was a guild to stabilize the existing IFMIS. One main feature that was to be implemented on IFMIS was the modified chart of accounts structure and values. The second phase was IFMIS Re-engineering, strategic plan (2013-2018) was launched in 2013. This plan would allow the Kenyan government to realize the entire benefits of a fully implemented integrated financial management information system (IFMIS).
However, IFMIS implementation process has been challenging because of many reasons which include; - Institutional, political, and technical challenges. The use of IFMIS has assisted the Kenyan government, public institutions and the devolved units in financial control, budgeting, management and planning. By controlling a core important set of data and using information for decision making. The main financial function are: - accounting and reporting functions, and other functions are budgeting, commitment, cash management and disbursement of funds.

The aim of IFMIS was to ensure that all government of Kenya agencies had timely and adequate access to an integrated financial management system, financial management system interfaced appropriately with key agencies, including the CBK and the KRA, to ensure that timely and accurate reports were produced from the financial management system, to ensure that there was a secure and stable system and finally to ensure efficient resource allocation mechanisms. IFMIS implementation in Kenya is a major reform that has a major impact on the work culture and management of the public resources. In view of the above, a need to carry out a study on the successful implementation of IFMIS and government performance.

1.2 Statement of the Problem

Many stakeholders agree that a fully implemented IFMIS, has a positive impact on governance, this is by providing real-time quality information that can be used to oversee projects/programs, formulate budgets and resource management (Rodin-Brown E 2008). Government performance has been affected by factors like availability of service, and the quality of information given by the relevant authorities, the system quality, project management and design issues, as well as adequate resources and human resource capacity allocated to project IFMIS. Locally, the office of auditor general Kenya report 2016, titled IFMIS effectiveness audit report for the period between July 2010 to June 2014, concluded
that massive upgrading of technological know-how through proper training to improve the system quality, service quality and as well as an increased in the supply of well trained and specialized graduates and technicians was required to fill the professional gap to train the end users.

IFMIS implementation and government performance have drawn a lot of attention from researchers. (Wamuyu, 2013) researched on the effects of IFMIS on public financial management and service delivery in government ministries in Kenya, the study concluded that public financial management and service delivery in government ministries in Kenya have improved significantly. The study also highlighted some gains accrued since the implementation of IFMIS, but the performance metrics used were not clearly stated, hence the need to conduct another study on how to measure IFMIS performance. (Bartel, 2009), did a study on integrated financial management systems, a framework to implementation based on the experience in Latin America, the study highlighted challenges to system quality, lack of proper technology and inadequate information quality are some of the factors identified for the failure of such project among others.

There has been a contributory factor to government institutions performance in Kenya continually remaining vulnerable to all manner of irregularities this is due to the quality of information and end-users errors which has caused high number of legal battles in the law court, accusations and controversies continuing to face the Kenyan government (Aketch, 2013). However, the government is still dedicated to implementing reforms to create a leaner, efficient, information oriented and more productive public service (Mosoba, 2013).

However, most studies have not addressed the quality issues as relates to integrated financial management information system implementation. Therefore, this study endeavours to address the quality issues such as system quality, service quality and information quality specifically in IFMIS implementation in government ministries. It is aimed that in delving in this domain,
the services and objectives that the system was meant to achieve will come to the fore. Specifically, allowing to address the acceptability of IFMIS by the government and other key stakeholders which will assist in reducing wastage that has been in mainstream media in Kenya for a long time. It is against this backdrop the study sought to find out the relationship between integrated financial management information system and performance of government ministries.

1.3 Research Objective

1.3.1 General objective

To find out the relationship between integrated financial management information system and performance of government ministries.

1.3.2 Specific Objectives

This study was guided by the following specific objectives:

i. To assess if system quality of IFMIS has impacted the performance of government ministries in Kenya.

ii. To assess Information quality after implementation of IFMIS in Government Ministries in Kenya.

iii. To evaluate service quality of IFMIS in relation to government performance in Kenya.

1.4 Research Hypothesis

The study sought to answer the following questions

H₀₁: There is no significant difference in System Quality and performance of government ministries in Kenya.

H₀₂: There is no difference in Information quality and government ministries in Kenya.
H₀: There is no difference in Service quality and performance in government ministries in Kenya.

1.5 Significance of the Study

The research will benefit the government of Kenya by determining the extent to which IFMIS has improved the services and also business with its citizen. The findings of this study could also be used by the government ministry to identify service delivery gaps for future improvement. In addition the study highlights the challenges to the implementation this is necessary to help the different stakeholders identify the likely obstacles affecting ministry performance under the implementation of IFMIS. As such, they can be more informed on the strategies that can be put in place to address the barriers to the successful implementation of IFMIS.

The study highlighted some of the challenges IFMIS end users are experiencing, example employees of a government institution. The outcome will assist the concerned personnel to take necessary actions in essence Initiate staff training, in order for them to enjoy the full benefit of the system. This study will also benefit the general population and entrepreneurs who are interested in acquiring information systems for their companies. Finally, other scholars and researchers can use this work for reference while conducting similar studies relating to IFMIS.

1.6 Scope of the Study

The study focused on IFMIS as a catalyst for government performance. Past studies have only concentrated on accounts department and ignored other departments, but this research will concentrate on finance, procurement, operations and ICT department where a number of staff will from each department will be interviewed. The study also focused on few but
pertinent factors affecting IFMIS implementation namely: organizational structure, top management commitment and organisation communication. The study was therefore limited to these three factors which other scholars have recommended as areas in need of further research. The study targeted 70 employees in the selected ministry. The study took a duration of 5 months.

1.7 Limitation of the study

These are factors that are beyond the control of the researcher, and those factors should not be mentioned since they might influence the results. Some of the limitations that was experienced by the researcher include difficulty from accessing vital information in this study, unwillingness of respondents to participate. The respondents in the selected department did not have revealed a lot of information which may be considered confidential hence this affected the quality of data.

1.8 Organization of the study.

This study is arranged as follows: the foregoing chapter one provides the research background, research objectives, significance of the study, scope, and the limitations of the study. Chapter Two covered the introduction and the body of the study where specific objectives were discussed, theoretical framework, related empirical literature as well as the conceptual framework. Chapter three illustrates the methodology employed in the study. Chapter four contained data analysis and presentation while chapter five contained summary of the findings conclusion and recommendations.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This section reviews the existing and relevant literature and publication relating to this topic written by other scholars, in particular, it covers the theoretical review of literature, some of the objectives, the variables, existing literature review critique, summary and gaps to be filled by the study and the conceptual framework.

2.2 Theoretical Review
Theories are used as the basis of most research work. (Kothari, 2003) elaborates that “the theoretical framework is presented by a research scholar, so as to place a particular study work within the viewpoint of other similar work in the same area of research. It, therefore, offers support for the planned research work by establishing known connections among variables and sets parameters or confines for the proposed study”. Three theories form the basis of this study, namely; systems theory, Technology acceptance model theory and DeLone and McLean’s Model.

2.2.1 Systems Theory
Developed in the 19th century by Ludwig Von Bertalanffy, a system is a set of components working together to achieve a common goal or objective and has two main characterise which are, the functionality of each component has an effect on the performance of the entire system and each component is interdependent to one another. According to (Mayer’s, 2004), concepts and technique of systems theory are important in organizations for a number of reasons. First, they are the bases for the development of ICT systems. System analysis is an important technique used when developing information systems technologies. Governments all over the world are adopting ICT systems in order to improve
service delivery and reduction on operating costs. Systems management ensures that the system’s infrastructure is maintained and the system is meeting its objective (Bevir, 2008). The theory suggests that it is paramount for the national treasury to match the process of implementation of IFMIS with the requirements of the end users’ and so a close monitoring and address all variations for the attainment of the strategic objective of having efficiency in Government ministries.

2.2.2 Technology acceptance Model Theory

According to (Davies, 1986), technology acceptance model (TAM) explains how a new technology becomes acceptable to the end users and how they appreciate that technology. According to technology acceptance model theory there are two factors that will influence users on how and when to engage a new technology. Those two factors are perceived usefulness and perceive ease of use. The perceived usefulness can be described as the point to which a user feels that the new technology will assist in making his work more efficient and effective or improve the job performance. Perceived ease of use determines the required effort that a user needs to apply when using the technology or innovation.

Technology Acceptance Model demonstrates on how the information system is determined by the behavioral pattern intention and the behavioral pattern determined by person’s attitude towards using the system. According to Davis the attitude of an individual is not only the factor that determines his use of a system but is also based on the impact on the performance. For example if a user who may be an employee does not welcome an information system the probability that he or she will use it is high if he or she perceives that it will improve his performance at work.
2.2.3 DeLone and McLean’s Model of IS Success

The model is interpreted as follows: both system quality “evaluates technical success” and information quality has an impact (individual and organization) to both use and user satisfaction. The model provides a wider definition and understanding of information system success. Use and user satisfaction are antecedent to individual impact which impact on organization of organization impact.

The D&M model of IS success has informed a number of previous studies such as (Garrity & Sanders, 1998). The 1992 model was criticized because of mixing the variance and processes models in one package. However, the model was updated 10 years later (2003) and it included another dependent variable known as service quality. Many empirical studies done by the information researchers have supported the updated Delone and Mclean updated model.
Figure 2.2 DeLone and Mclean’s Model of IS Success
Source: (DeLone and Mclean, 1992: 87).

Figure 2.3: The Updated Delone and McLean’s 2003 Model

2.3 Empirical Literature

2.3.1 System Quality of IFMIS and performance of Government ministries

In the information system environment, system quality measures the desired characteristics of the IFMIS system. It will be measured with the following attributes: - performance, usability, availability of the system and technical resources. Technical resources can be defined as the capability of an institution to come up and maintain a knowledge management information system. These include aspects such as amount of past experience already gained in developing and maintaining the IFMIS system, the amount of training and technical expertise that is used to develop and maintain the IS, the type of infrastructure used to run the system, and the competence of the end users. Technical resources will impact both the level and form
of the IFMIS. The level of the IFMIS can be referred to its ability to bring past information to bear upon current activities. The form of IFMIS refers to the extent to which it is computerized and integrated. In addition, the form of the IFMIS should impact its level. Given the effectiveness of information technology to provide accurate information, it is expected that a more fully computerized and integrated system will provide a more sophisticated capability to retrieve past information.

Table 2.1: A Construct of system quality

<table>
<thead>
<tr>
<th>Factor</th>
<th>Evaluation parameter</th>
<th>Description</th>
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<tr>
<td>System quality</td>
<td>Performance</td>
<td>Level of satisfaction from the end user</td>
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<tr>
<td></td>
<td></td>
<td>Errors that occurs while using the system</td>
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<tr>
<td>Usability</td>
<td></td>
<td>Interface efficient-navigating from one window of the system to another</td>
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<tr>
<td></td>
<td></td>
<td>User friendly</td>
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<tr>
<td></td>
<td></td>
<td>Easy to learn</td>
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<td></td>
<td></td>
<td>Integrating to other systems such as GPAY systems in CBK and budget.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complexity of the system-easy to accommodate changes or not</td>
</tr>
<tr>
<td>Availability</td>
<td></td>
<td>No of times a system is up and down.</td>
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<tr>
<td>Technical resources</td>
<td></td>
<td>The availability of experienced ICT personnel to give technical support in</td>
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</tbody>
</table>
<pre><code>                      |                      | regard to the system                                                        |
</code></pre>

Source: Author 2018,

2.3.2 Information Quality after implementation of IFMIS in government ministries

This has to do with content issues and characteristics of the information systems output. Information output with consideration of past events or situations describe the output of an
organization’s report and events i.e. financial position, projections and performance (Van der Hoek MP, 2005). Reports provide a means for internal and external stakeholders to assess government ministries performance. In order to serve its objectives meaningfully, information output must be Authentic, prompt and accurate.

2.3.2.1 Authentic
Countries usually have various reports; the most important report is the financial statement, which shows revenue, expenses and cash flows. That information is the end product of an accounting process. Financial authenticity is determined by independent auditor (Thurakam, 2007). However, IFMIS can improve public financial management in a number of ways, but generally it aims at ensuring confidence and credibility of budgeting in a more comprehensive and transparent way.

(Kimwele, 2011) conducted a study on the factors affecting effective implementation of Integrated Financial Management Information System in government ministries in Kenya. His study had two objectives, to determine the effectiveness of IFMIS implementation in the Kenya Government Ministries and to determine factors that influence the successful implementation of IFMIS. From the study it was established that effective use of the system is affected largely by sabotage and resistance. The study also established that lack of support from the top management discouraged the user. According to the study the system was implemented in a hurry and the technical know-how and training was found to be low. The finding by Kimwele therefore questions the effectiveness of IFMIS improving performance in government ministries.

2.3.2.2 Prompt
Promptness can be defined as quick preparation and submission of information/report generated from IFMIS to the stakeholders for decision making purpose. (Thurakam, 2007).
The promptness in the flow of information is key to resource utilization (Kumr, 2009). Integrated Financial Management Information Systems (IFMIS) can improve management in ministries and government institutions by providing real-time financial information to the top management, this will improve decision-making.

Automation of mechanical activities such as automatic generation of accounting vouchers triggered by each financial transaction and easy generation of accounting records, financial statements and management information systems (MIS) reports are essential to ensure basic data integrity, availability of data on demand and timely audit of transaction data (Rupanagunta, 2006). (Umble et al 2003) carried out an investigation on IFMIS and concluded that successful implementation of information system is pivotal to an organization survival and success. Institutions are increasingly becoming more productive as a result of effective use in IFMIS (Mandal & Gunasekaran 2003).

2.3.2.3 Accurate
Thurakam (2007) information must be accurate and shows the true position of the organization. Inaccurate information is not only misleading to the public but also it has legal consequences. There should not be any personal prejudice and room for manipulating any information. IFMIS should provide the accurate information required for decision making. (Diamond 2005), IFMIS should concentrate in generating both financial and non-financial information. The number of employees in an institution, academic qualifications, age, disciplinary cases, and performance management can be classified as non-financial information which is important to the decision-making organ. Information system depends on entries so that the information generated is up to date and in a standard format that can be easily interpreted.
2.3.3 Service Quality of IFMIS and government performance

This is said to measure the desirable characteristics of an information system. Several IS studies have measured this using such characteristics such as reliability, responsiveness and assurance. The emergence of end user computing placed IS organizations in the dual role of information provider (producing an information product) and service provider (providing support for end user developers). Pitt et al. observed that commonly used measures of IS effectiveness focus on the products rather than the services of the IS function. Thus, there is a danger that IS researchers will mis-measure IS effectiveness if they do not include in their assessment package a measure of IS service quality”. Other researchers have agreed with this, citing the need for a service quality measure to be a part of IS success. This instrument uses the dimensions of tangibles, reliability, responsiveness, assurance, and empathy to measure service quality.

2.3.3.1 Reliability

According to (Lin, 2012), reliability in information system is very important, (Howard, 2004) emphasizes that reliability in IS has to be addressed according to the business requirements and implementation of security controls. Some of the tools that can be used in IFMIS to improve the reliability of information system include implementing electronic cash payments in all government institutions.

2.3.3.2 Responsiveness

Moeti et al. (2007) explain that responsiveness has to do with meeting objectives. Regardless of whether the process is responsive or not, we shall have to measure the responsiveness by the extent to which our objectives are met.

2.3.3.3 Assurance

Conrad (2013) discussed that IFMIS aims at enhancing services delivery to citizens, businesses, and other stakeholders, and that it encompasses internal and external dimensions
and despite the challenges faced, as noted by (Picci L, 2005), most people would agree that the new information technologies hold vast potentials for improving public administrations, and better administrations in turn would have a positive influence on the economy and on society thereby improving stakeholder confidence. (Mullen & Horner, 2004) observed that the rapid diffusion of e-commerce in particular has placed existing norms and moral behaviour under pressure and may affect the successful implementation of successive governments’ visions of e-Government. They noted that the 2003 review of 34 IFMIS projects supported by the World Bank over 15 years estimated that only 6 percent of the systems were likely to be sustained after donor support ceased.

Table 2.2 Summary of Literature and Research Gaps

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Findings</th>
<th>Research Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chuma (2014)</td>
<td>Integrated Financial Management Information System and Its Effect on Cash Management in Eldoret West District Treasury, Kenya.</td>
<td>Showed that reliability of IFMIS, Flexibility of IFMIS positively affect cash management.</td>
<td>This thesis has addressed its problem comprehensively but it has not shown what other scholars have done. In other parts of the counties</td>
</tr>
<tr>
<td>Muigai (2012)</td>
<td>Effect of integrated financial management information systems on the financial management of public sector in Kenya: a case of the Kenyan ministries.</td>
<td>The study found out that IFMIS has greatly contributed to improvement in financial management in Kenya.</td>
<td>Use of multiple regression analysis does not match the sampling technique used</td>
</tr>
</tbody>
</table>
20

<table>
<thead>
<tr>
<th>Diamond and Khemani (2008)</th>
<th>Introduction to financial management information systems in developing countries</th>
<th>The study established that reports can be tailored to meet the reporting requirements set by external agencies and international institutions like the International Monetary Fund (IMF).</th>
<th>The statement of the problem brings out the problem but the gap at the end should be brought out clearly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kahari, et al (2015)</td>
<td>Factors affecting IFMIS implementation in Nyandarua County</td>
<td>Scrutinized challenges that affect implementation of IFMIS in Nyandarua County</td>
<td>The research concentrated on ICT infrastructure only</td>
</tr>
</tbody>
</table>

Source: Author (2018)

2.4 Conceptual Framework

A well-structured conceptual model it’s important as it helps a researcher come up with meaningful findings. A model is viewed as the first idea of reflection for research and the context. Through model, the researcher can clearly explain the study so that it can be easily understood. A model brings about researcher’s understanding of the variables under study.

Conceptual models show how the dependent and independent variables of the study are related either through graphs or diagram (Mugenda & Mugenda, 2006). A variable is value which can change according to the condition and which can take qualities of quantitative values (Kothari 2003). This study adopted DeLone & Mclean’s information system model.

The model is widely used by scholars in determining information system implementation success. A dependent variable it’s the value the researcher is observing during the study, and it can’t be changed. In this study the dependent variable is Performance of government in Kenya. The independent variables are values which can be manipulated during the study. In this study the independent variables will be System Quality, It’s the desired standard that an
information system (IS) should achieve and it will be measured by the following factors: Performance, Usability, Availability and technical resources. In this case a technical resource is the capability of an organization to develop and maintain the system. Information Quality: represents the desirable output of the system and will have the following characteristics such as Authentic, promptness and accuracy which will be evaluated. Service Quality is the variance between customer expectation of service (E) and perceived service (P), \( SQ = P - E \). It will be measured by Reliability, Responsiveness and Assurance of the system.

**Independent Variable**

- System Quality
  - Performance
  - Usability
  - Availability
  - Technical Resources

- Information Quality
  - Authentic
  - Promptness
  - Accuracy

- Service Quality
  - Reliability
  - Responsiveness
  - Assurance

**Dependent Variable**

- Performance
  - Effectiveness
  - Efficiency

---

**Figure 2.4: The Conceptual Model**

Source: (DeLone & Mclean Model, 2003)
CHAPTER THREE:
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes methodology that was used for collecting and analyzing the data in the study.

3.2 Research Design

The researcher used descriptive research design, this designed is used on subjective matters that the researcher is familiar with. A descriptive research approach is a systematic, empirical inquiring that a researcher has no direct control of independent variable (Mugenda and Mugenda 2003). This design will provide quantitative evidence through data collection, analyzing and reporting on the different level of success on the IFMIS implementation. The design assisted the researcher in data collection methods considering the resources at his disposal.

3.3 Target Population

A population element is the subject, such as a person, organization, customer database or the amount of qualitative data on which measurement has been taken (Mugenda and Mugenda 2003). From that population the researcher generalized the outcome. The target population for this study was the national treasury in Kenya. This is because the national treasury depends on IFMIS on their day to day activities. According to government data the ministry has a total of 350 employees, the target population comprised of staff working in the finance, accounts, ICT, procurement and the audit department under the directorate of immigration and registration of persons.
Table 3.1: Distribution of IFMIS users in the national treasury

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Accounts</th>
<th>Finance</th>
<th>Procurement</th>
<th>Human Resource</th>
<th>ICT</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nation Treasury of Kenya</td>
<td>10</td>
<td>5</td>
<td>80</td>
<td>200</td>
<td>55</td>
<td>350</td>
</tr>
</tbody>
</table>

Source: National Treasury 2018

3.4 Sampling design.

Stratified random sample technique was used in the study, according to (Kombo & Trumps, 2006) explains this process involves isolating one’s population into similar small groups known as strata, and then taking a random sample in each small-groups. This technique was the best for this study since the population under study comprised of diverse individuals who don’t work in the same sections. A sample size can be defined as a portion of the main population, chosen for purposes of conducting a study or survey. A sample size of 20% of the target population is recommended, provided that it can support reliable data analysis (Mugenda & Mugenda, 2003).

Table 3.2: Population to be sampled

<table>
<thead>
<tr>
<th>Department</th>
<th>Target Population</th>
<th>Sampled Population</th>
<th>% Population Sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts</td>
<td>10</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Procurement</td>
<td>5</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>Finance</td>
<td>80</td>
<td>16</td>
<td>20%</td>
</tr>
<tr>
<td>Human resource</td>
<td>200</td>
<td>40</td>
<td>20%</td>
</tr>
<tr>
<td>ICT</td>
<td>55</td>
<td>11</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>350</strong></td>
<td><strong>70</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
3.4.1 Data collection Instruments

A research instrument is a broad term that researchers use for a measurement tool, the most common ones are survey, texts and questionnaires (Mugenda & Mugenda, 2003). These tools are used to measure, Knowledge, attitude and skills. The researcher used primary data, a questionnaire was used to collect primary data.

Table 3.3: Operationalization and measurement variable

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no difference in System Quality and performance of government ministries performance.</td>
<td>Independent Variable System Quality</td>
</tr>
<tr>
<td>There is no difference in Information quality and government ministries performance.</td>
<td>Information Quality</td>
</tr>
<tr>
<td>There is no difference in Service quality and performance in government ministries.</td>
<td>Service Quality</td>
</tr>
</tbody>
</table>

Source: Author 2018

3.4.2 Validity

Validity determines the accuracy of a research result. There are two features of validity which are: - Internal validity, the tools and methods used in this study achieved their intended objectives and External validity, in this validity, the outcome of a study or research work can be used generalized to other studies.
The content validity of the instrument was determined through piloting, where the responses of the subjects were checked against the research objectives. The research supervisor compared the pilot questionnaire responses; gave comments on the representativeness, ethical appropriateness and suitability of the questions based on research objectives and give suggestions of corrections to be made to the structure of the research instrument.

3.4.3 Reliability

When an experiment has a consistent outcome after a number of trials, then we can conclude that it’s reliable. A pilot study was conducted on 15 officers based at the Ministry to measure the validity and reliability of the research instrument. Those who were selected for piloting were not selected again for the main study. The reliability (internal consistency) of the data collected from this research it was measured by calculating the Cronbach’s Alpha coefficient. Cronbach alpha ranges between 0-1. Scores between 0-0.6 indicate that the instrument has a low reliability while scores of 0.7 and above indicate that the instrument has a high level of internal consistency. All the variables had a score of above 0.7 therefore deemed reliable for the study.

3.5 Data Collection Procedures

A self-administered questionnaire was dropped at a strategic point, a drop and pick later strategy of a period of one week was used to administer the questionnaires as this gave the respondents an ample time to answer the questions.

3.6 Data Analysis and Presentation.

After receiving all the questionnaires and responses given were counter checked, questionnaires with incomplete or incorrect response were discarded. All analysis were done with the aid of statistical package for social science (S.P.S.S V2.0) and the data was captured in Microsoft-excel 2013 on windows operating system. The researcher used descriptive
statistical techniques to scrutinise the data collected. Descriptive statistics made it possible, for the research to condense the large quantities of data. Descriptive statistics allowed the researcher to condense large quantities of data using methods an observer can understand it easily. Inferential statistics was used to develop a straight-line predictor model. The variables in the study were classified into dependent and independent variables. The dependent variable was government ministries performance.

The relationship between the variables is stated using a mathematical function.

\[ Y = f(X_1, X_2, X_3) \]

Where \( Y \) is the dependent variable and \( X_1, X_2, \) and \( X_3 \) are the independent variables, the dependent variable performance of government ministries is represented by \( Y \).

Therefore, an analytical model of a linear multiple regression equation of the form shown below will be developed. Where: \( Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e_1 \)

\( Y = \) Government ministries performance

\( \alpha = \) Autonomous factors

\( X_1 = \) System Quality

\( X_2 = \) Information Quality

\( X_3 = \) Service Quality

\( \beta_1 = \) Coefficient for system quality

\( \beta_2 = \) Coefficient for information quality

\( \beta_3 = \) Coefficient for service quality
e= Error term - Captures all relevant variables not included in the model because they are not observed in the data set.

This regression relationship showed the extent to which each independent variable influenced the dependent variable. This was shown by the coefficient of the independent variable in each case. A correlation analysis was also performed to find how the variables are related to each other in the model.

3.7 Ethical Considerations
To ensure that the research was done in an ethical manner according to the expectations of all authorities, a letter from Kenyatta University was obtained. Also, due to sensitivity of some information collected, the researcher upheld a moral obligation to treat the information with utmost propriety. Further, since the researcher anticipated that some respondents might be reluctant to disclose some information, the researcher reassured the respondents of use and confidentiality of the information given.
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents analysis of the research findings in relation to study variables. The study sought to establish the relationship between integrated financial management information system and performance of government ministries in Kenya. Data analysis was based on specific objectives of the study, where patterns of variables were examined, interpreted and implications drawn on them. The findings were presented in form of charts and tables. The researcher tested reliability, correlation and also regression model results were provided.

4.2 Response Rate

The number of questionnaires that were administered for the study was 70. And, a total of 60 questionnaires were filled and retrieved from respondents. This represented a successful response rate of 85.7%. Babbie (2014) indicated the return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good. Therefore, a response rate of 85.7% is very good.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>60</td>
</tr>
<tr>
<td>Non-respondent</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

4.3 Pilot Testing

4.3.1 Reliability Testing

The reliability of the instrument refers to ability of the instrument to produce reliable and stable measurements. In this study reliability was tested using Cronbach’s coefficient alpha
(a). Coefficient alpha is typically used during scale development with items that have several response options (i.e. 1= strongly disagree to 5= strongly agree). To establish the Cronbach’s coefficient alpha (α), reliability analysis, SPSS was used and results are shown in table 4.2 below.

Table 4.2: Reliability Results

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Quality</td>
<td>0.791</td>
<td>7</td>
</tr>
<tr>
<td>Information Quality</td>
<td>0.842</td>
<td>5</td>
</tr>
<tr>
<td>Services Quality</td>
<td>0.863</td>
<td>4</td>
</tr>
<tr>
<td>Government ministries Performance</td>
<td>0.870</td>
<td>3</td>
</tr>
</tbody>
</table>

4.3.2 Validity

The validity reflected the extent at which the result of an observation was a true reflection of reality. To ensure internal validity, the questionnaire was simplified in a language that all participants were familiar with. The researcher determined validity by posing a series of standardized questions to 10% of target population. The results of the pilot test established that the questionnaire was easy to answer and the questions were easily understood by the respondents.

4.4 Background Information

The researcher in finding demographic characteristics of the respondents wanted to determine the effect of demographic factors of the respondents on integrated financial management information system (IFMIS) and performance of government ministries in Kenya. Results were as presented below.
4.4.1 Age Bracket

As tabulated in the figure 4.1, it shows that most of the respondents from various government ministries fall under age bracket between 40 and 49 year were 31% followed by 28.3% between 30 and 39 years. Those that were between 18 and 29 years were 19.7% and above fifty years. Implying that majority of them fall under age bracket between 40 and 49 and know the effect of IFMIS on performance of government ministries.

![Age Bracket](image)

Source: Research Data (2018)

**Figure 4.1 Age Bracket**

4.4.2 Level of Education

It was useful for the success of this study to investigate the usage and relevance of education on performance in government ministries. Results obtained were as show in figure 4.2.

![Level of education](image)

**Level of education**
Figure 4.2 Level of Education
Results findings as illustrated in figure 4.2, indicates that majority of the respondents were holders bachelor degree 50%, master’s degree 25% and diploma holders 16.7% and certificate 8.3%. This reveals that majority of the respondents are degree holders. Implying that majority of them are relatively educated and thus fully understood effect of IFMIS on government performance.

4.4.3 Computer Skills
The respondents were asked to indicate if they have computer skills. The research findings were as indicated in the figure 4.3

Figure 4.3 Computer Skills
Results findings as illustrated in figure 4.3, indicates that majority of the respondents were computer litrate 93.3% and only 6.7% do not have computer skills. Implying that majority of them have computer skills and thus fully understood effect of IFMIS on government performance.

Source: Research Data (2018)

Figure 4.3 Computer Skills
4.4.4 Department

As tabulated in the fig. 4.4, shows categories of department. The findings reveals that 11.7% of the staff belongs to accounts department, 16.7% of staff belongs to audit department, 43.3% of staff belongs procurement department, 15% of staff belongs to customer care department and 13.3% of staff belongs to human resource departments. This reveals that majority of the respondents were from procurement department.

![Department Chart]

Source: Research data (2018)

Figure 4.4 Departments

4.4.5 Work Experience

The study further inquired from the respondents on how long years they had served in the county government. From the findings, the majority 38.3% had served for more than 10 years, 28.3% had had served between 4 and 10 years and 18.3% had served between 1 and 3 years and 15.1% had worked less than one year. The findings show that the majority had understanding and adequate knowledge on IFMIS activities and its effect on performance in government ministries.
Figure 4.5 Work Experience

4.4.6 Usage of IFMIS

It was useful for the success of this study to investigate the usage and relevance of IFMIS and its effect on performance in government ministries. Results obtained were as shown in Figure 4.6.

Source: Research Data (2018)

Figure 4.6 Uses of IFMIS
4.5 Descriptive Analysis

4.5.1 System Quality and performance

In trying to find out the relationship between IFMIS and performance of government ministries, respondents were requested to respond to the following set of questions. On whether the system takes long to respond when making transaction. Respondents were in agreement with the statement as indicated by a (mean=4.18, standard deviation=1.334). On whether, the system has a lot of errors when working with it had a (mean= 4.25, standard deviation of 1.422). Respondents were in agreement with this statement with a (mean= 4.11, standard deviation=1.237). However, despite the system being friendly to its end users, respondents were in agreement that it is difficult to learn new updates on IFMIS. This is demonstrated with a (mean=4.21, standard deviation=1.323). Further findings shows that majority of respondents with a (mean=4.18, standard deviation=1.315) respondents were in agreement that IFMIS is a complex system and cannot be accessed easily. This finding is in agreement with (Kimwele 2011) implied that access to IFMIS by users is severely limited and has a negative effect in the use of the system. However, it can be IFMIS is readily available throughout. This is demonstrated with a (mean=4.18, standard deviation=1.254). The statement that organization has experienced ICT personnel had a (mean=4.42, standard deviation=1.293).

Table 4.3 System Quality

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system takes long to respond when making Transactions.</td>
<td>60</td>
<td>4.18</td>
<td>1.334</td>
</tr>
<tr>
<td>The system has a lot of errors when working with it</td>
<td>60</td>
<td>4.25</td>
<td>1.422</td>
</tr>
<tr>
<td>I find it friendly while working with IFMIS</td>
<td>60</td>
<td>4.11</td>
<td>1.237</td>
</tr>
<tr>
<td>I find it difficult to learn new updates on IFMIS</td>
<td>60</td>
<td>4.21</td>
<td>1.323</td>
</tr>
<tr>
<td>I find IFMIS a complex system</td>
<td>60</td>
<td>4.18</td>
<td>1.315</td>
</tr>
<tr>
<td>IFMIS is readily available throughout</td>
<td>60</td>
<td>4.18</td>
<td>1.254</td>
</tr>
<tr>
<td>The organization has experienced ICT personnel</td>
<td>60</td>
<td>4.42</td>
<td>1.293</td>
</tr>
</tbody>
</table>
to give technical support in regard to the system

Valid N (listwise) 60

Source: Research data (2018)

4.5.2 Information Quality and Performance

Referring to Table 4.4, the study wanted to investigate the effect of information quality on performance of government ministries. Respondents were requested to respond to the set of questions in relation to information quality. On statement that the information provided by IFMIS system is authentic had a (mean=4.15, standard deviation = 1.338). Respondents were also in agreement IFMIS generates information promptly. This is indicated by a (mean=4.18, standard deviation=1.334). On whether information provided by IFMIS system is accurate and free form error had a (mean=4.22, standard deviation=1.422). This concurs with (Wamuyu, 2013) findings that the use of IFMIS will improve financial management and service delivery in government ministries in Kenya. The statement that there is consistency in the information generated by the system had a (mean=4.17, standard deviation of=1.232).

Table 4.4   Information Quality

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>That that the information provided by IFMIS system is authentic</td>
<td>60</td>
<td>4.15</td>
<td>1.338</td>
</tr>
<tr>
<td>The system generates information promptly</td>
<td>60</td>
<td>4.18</td>
<td>1.334</td>
</tr>
<tr>
<td>That that the information provided by IFMIS system is accurate and free from errors</td>
<td>60</td>
<td>4.25</td>
<td>1.422</td>
</tr>
<tr>
<td>Is there consistency in the information generated by the system</td>
<td>60</td>
<td>4.17</td>
<td>1.232</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.5.3 Services Quality and Performance

The results in Table 4.5, showed that the system can be relied on to provide information had a (mean= 4.23, standard deviation=1.323). On whether it is safe in performing transaction with the system had a (mean=4.25, standard deviation=1.422). Respondents agreed with a (mean=4.18, standard deviation=1.334) that the overall infrastructure in place is adequate to support the system. On whether prompt provision of service to the end user by the ICT support team had a (mean=4.08, standard deviation=1.335). Respondents were in agreement that the ICT team are consistently courteous with the end users. The finding on service quality is consistent with (Kanyugi 2012) that the IT department has the necessary skills and resources to manage IFMIS.

Table 4.5 Service Quality

<table>
<thead>
<tr>
<th>Service Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system can be relied on to provide information as when needed</td>
<td>60</td>
<td>4.23</td>
<td>1.323</td>
</tr>
<tr>
<td>I feel safe in performing transaction with the system</td>
<td>60</td>
<td>4.25</td>
<td>1.422</td>
</tr>
<tr>
<td>The overall infrastructure in place is adequate to support the system</td>
<td>60</td>
<td>4.18</td>
<td>1.334</td>
</tr>
<tr>
<td>Prompt Provision of service to the end user by the ICT support team</td>
<td>60</td>
<td>4.08</td>
<td>1.335</td>
</tr>
<tr>
<td>The ICT team are consistently courteous with the end users</td>
<td>60</td>
<td>4.42</td>
<td>1.293</td>
</tr>
</tbody>
</table>

4.5.4 Government Performance

From the analysis, majority of the respondents agreed with a (mean=4.19, standard deviation=1.334) that there is a relationship between government ministries performance and the Implementation of IFMIS. With a (mean=4.15, standard deviation 1.334) respondents strongly agreed that performance in government ministries has improved since the implementation of IFMIS.
Table 4.6 Government Ministries Performance

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a relationship between government ministries performance and the Implementation of IFMIS</td>
<td>60</td>
<td>4.19</td>
<td>1.334</td>
</tr>
<tr>
<td>Performance in government ministries has improved since the implementation of IFMIS</td>
<td>60</td>
<td>4.15</td>
<td>1.479</td>
</tr>
<tr>
<td>Implementation of IFMIS has positive impact on governance.</td>
<td>60</td>
<td>4.28</td>
<td>1.329</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td></td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

4.6 Correlations Analysis

To establish the relationship between the independent variables and the dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient of determination.

4.6.1 Coefficient of Correlation

To show relationship between the study variables and their findings, the study used the Karl Pearson’s coefficient of correlation (r). This is as shown in Table 4.7. According to the findings, it was established that there was a positive correlation between the independent variables, System Quality, Information Quality and services Quality. The analysis indicates the coefficient of correlation, ‘r’ equal to 0.945, 0.921 and 0.938 for System Quality, Information Quality and services Quality. This indicates a positive relationship between independent variables and dependent variable.
**Correlation is significant at the 0.01 level (2-tailed).**

meaning that mean is significantly greater than 0.25 on both sides resulting to a p value less than 0.05. Finding agreed with (Lin, 2012; Conrad; 2013) that reliability in information system is very important in enhancing services delivery to citizens, businesses, and other stakeholders.

4.6.2 Correlation of Determination

Table 4.8 Coefficient of Determination (R²)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.956a</td>
<td>.915</td>
<td>.910</td>
<td>1.024</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Service_Quality, Information_Quality, System_Quality

4.7 Regression Analysis

4.7.1 Analysis of Variance (ANOVA)

The study used ANOVA to determine the significance of the regression model. On testing the significance level, p-value was found to be less than 0.05 as indicated in Table 4.9. This shows that the regression model is statistically significant in establishing the relationship between integrated financial management information system and performance of government ministries in Kenya. At 95% confidence level, analysis indicates high reliability of the results obtained. The overall ANOVA results indicates that the model was significant at F=200.441,
p-value = 0.000, this implies that the overall model was significant. And, that System Quality, Information Quality and services Quality.

**Table 4.9 ANOVAs**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>630.164</td>
<td>3</td>
<td>210.055</td>
<td>200.441</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>58.686</td>
<td>56</td>
<td>1.048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>688.850</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Dependent Variable: Gover_Performance  
b Predictors: (Constant), Service_Quality, Information_Quality, System_Quality

**Table 4.10 Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.274</td>
</tr>
<tr>
<td></td>
<td>System_Quality</td>
<td>.444</td>
</tr>
<tr>
<td></td>
<td>Information_Quality</td>
<td>.341</td>
</tr>
<tr>
<td></td>
<td>Service_Quality</td>
<td>.482</td>
</tr>
</tbody>
</table>

a Dependent Variable: Goverment Performance

The general regression Model arrived at was $Y = 2.274 + 0.444X_1 + 0.341X_2 + 0.482X_3$
Where;

\( X_1 = \text{System Quality}, \ X_2 = \text{Information Quality} \) and \( X_3 = \text{Service Quality} \) and \( Y = \text{Government Ministries Performance} \).

The Beta Coefficients in the regression model show that all of the tested variables had positive relationship with Government Ministries Performance and all variables tested were statistically significant with p-values less than 0.05.

The findings implies that a unit change of \( X_1 \) (System Quality) = 0.444, will result in to 0.444 change in Government Ministries Performance; \( X_2 \) (Information Quality) = 0.341, will results in to 0.341 change in Government Ministries Performance; \( X_3 \) (Service Quality) = 0.482; will results in to 0.482 change in Government Ministries Performance.

The Y-Intercept (\( \beta_0 = 2.274 \)), predict that the Government Ministries Performance when all other variables are zero, implying that without the independent variables that include; System Quality, Information Quality, Service Quality, Government Ministries Performance will be 2.274.

From the analysis in table 4.10, Service Quality \( X_2 \) (\( \beta = 0.482, \ p<0.05 \)) has the strongest relationship with Government Ministries Performance followed by \( X_1 \) (\( \beta = 0.444, \ p<0.05 \)), System Quality, and finally Information Quality \( X_2 \) (\( \beta = 0.341, \ p<0.05 \)). All three variables significantly predicted Government ministry performance.
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides summaries the findings of preceding chapters, gives the conclusions and recommendations of the study based on the objectives of the study. In this study the objectives of the study were to assess if system quality of IFMIS has impacted the performance of government ministries, to assess Information quality after implementation of IFMIS in Government Ministries and to evaluate service quality of IFMIS in relation to government performance.

5.2 Summary of the Findings

The aim of this study was to find out the relationship between integrated financial management information system and performance of government ministries. The study was conducted on 60 out of 70 questionnaires that constituted the sample size. The researcher used a closed structured questionnaire to collect data. The questionnaire comprised of 19 items were administered to government ministries through drop and pick method. Collected data was analyzed using SPSS and results were presented in form of mean, standard deviations, correlation and regression analysis. Study findings revealed that majority of respondents have a working experience of above 10 years, with majority holders of bachelor degree and age bracket between 35 and 40. The correlation between the independent variable and the dependent variable was positive.

5.2.1 System Quality

The first objective of the study was to assess the effects of System quality on the government ministries performance. From the study the researcher established that System Quality has performance, usability, availability and technical resources attributes that contributes
performance of government ministries. This is supported by respondent’s response in agreement with a mean value of 4.18 that IFMIS is readily available and the organization has experienced ICT personnel to give technical support in regard to the system as shown with response mean of 4.42. The positive correlation between System Quality and performance shown by a correlation figure 0.945 demonstrates that System Quality is essential and contributes significantly to government ministry performance.

5.2.2 Information Quality

The second objective of the study was to assess Information Quality after implementation of IFMIS in Government Ministries. The positive correlation between information quality and government performance shown by a correlation figure 0.921 and positive regression coefficient of 0.341 shows that information quality significantly affects Government ministry performance. According to (Lin, 2012; Conrad; 2013), reliability in information system is very important in enhancing services delivery to citizens, businesses, and other stakeholders. Picci (2005) concludes that new information technologies hold vast potentials for improving public administrations and in assessing government ministries performance.

5.2.3 Services Quality

Third objective of the study was to evaluate service quality of IFMIS in relation to government performance. From study it was noted that majority of the respondents were in agreement with a mean of 4.25 with overall infrastructure in place it gives adequate to support to end users and users feel safe to use the system in performing transaction. The positive correlation between services quality and government performance shown by a correlation figure 0.939 and positive regression coefficient of 0.482 shows that service quality significantly affects Government ministry performance.
5.3 Conclusion

From the research study, it was evident that System Quality, Information Quality and Service Quality are key determinants to government performance in various ministries and the government should focus on them in order to achieve its objectives. If these variables are considered in terms of effectiveness and efficiency, government performance will improve drastically. The study concludes that IFMIS is key to improvement of government performance in Kenya. It provides a transparent accountability process that is visible to stakeholders and this need to be natured and protected.

5.4 Recommendations

1. The study found out that system quality will save time, improve service delivery. It is therefore recommended that the government through various ministries be effectively implemented for quick and transparent transaction.

2. The study revealed that among the four variables discussed, service quality had the highest performance. Therefore, its role in improving government performance is key to achievement of county’s objective and should be given more attention in every ministries.

3. The study revealed that IFMIS can improve management in ministries and government institutions by providing real-time financial information to the top management, this will improve decision-making. It is recommended that employees be trained for maximum utilization of the system.

4. The study also revealed that implementing IFMIS will to improve the reliability of information system including electronic cash payments in all government institutions. It is recommended that Government should plan fully to automate the cash payment to minimize corruption.
5.5 Suggestions for further research

This study focused on the relationship between integrated financial management information system and performance of government ministries. Since only 85% of results was explained by independent variables in this study, it is recommended that a further study be carried out on other factors such as training and workshops on courses related to IFMIS other infrastructures. that might have effect on government performance.
REFERENCES


Kanyugi, M. A. (2014). A frame work for determining the level of success in the implementation of IFMIS. Unpublished Master of Science in Information Systems, University of Nairobi


Office of the auditor general (2016). IFMIS effectiveness audit report for the period (July 2010- June 2014)


APPENDICES

APPENDIX 1

QUESTIONNAIRE

This study seeks to obtain information regarding the relationship between implementation of integrated financial management information system (IFMIS) and the performance of government ministries in Kenya.

Kindly answer the questions below, all the information will be confidential and will be used for academic purpose.

Answer by ticking in the appropriate box.

SECTION A: GENERAL INFORMATION

1. What is your gender?

   Male (  )
   Female (  )

2. What is your age bracket?

   18 – 29 years (  )
   30 – 39 years (  )
   40 – 49 years (  )
   50 years and over (  )
3. Level of education:

Certificate ( )
Diploma ( )
Degree ( )
Post graduate ( )

4. Do you have computer Skills

Yes ( )
No ( )

5. Department:

Accounts ( )
Audit ( )
Procurement ( )
Customer Care ( )
Human Resource ( )

6. How long have you worked in your department?

Less than 1 year ( )
1 – 3 years ( )
4 – 10 years ( )
More than 10 years ( )
7. How frequent do you use IFMIS as part of your work?

Daily ( )
Weekly ( )
Monthly ( )
Quarterly ( )
Annually ( )
8. To what extent do you agree or disagree with the following statements about system quality and performance of government ministries in Kenya?

<table>
<thead>
<tr>
<th>System Quality</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The system takes long to respond when making transactions</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2) The system has a lot of errors when working with it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) I find it friendly while working with IFMIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) I find it difficult to learn new updates on IFMIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) I find IFMIS a complex system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) IFMIS is readily available throughout</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) The organization has experienced ICT personnel to give technical support in regard to the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION C:

9. To what extent do you agree or disagree with the following statements about information quality and performance of government ministries in Kenya?

<table>
<thead>
<tr>
<th>Information Quality</th>
<th>Strongly</th>
<th>Agree</th>
<th>Neither</th>
<th>Agree nor</th>
<th>Disagree</th>
<th>Strongly</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) That the information provided by IFMIS system is authentic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2) The system generates information promptly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3) That the information provided by IFMIS system is accurate and free from errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4) Is there consistency in the information generated by the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
SECTION D:

10. To what extent do you agree or disagree with the following statements about service quality and performance of government ministries in Kenya?

<table>
<thead>
<tr>
<th>Service Quality</th>
<th>Strongly</th>
<th>Agree</th>
<th>Neither</th>
<th>Agree nor</th>
<th>Disagree</th>
<th>Strongly</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The system can be relied on to provide information as when needed</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) I feel safe in performing transaction with the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) The overall infrastructure in place is adequate to support the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Prompt Provision of service to the end user by the ICT support team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) The ICT team are consistently courteous with the end users</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION E:

11. How do you agree with the following statement? There is a relationship between government ministries performance and the Implementation of IFMIS?

   Strongly Agree [ ], Agree [ ], neither Agree nor Disagree [ ] Disagree [ ], Strongly Disagree.

12. How do you agree with the following statement? Performance in government ministries has improved since the implementation of IFMIS?

   Strongly Agree [ ], agree [ ], Neither Agree nor Disagree [ ] Disagree [ ], Strongly Disagree.

   Thank you for your cooperation
APPENDIX II: LETTER OF INTRO UCTION FROM THE UNIVERSITY

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

FROM: Dean, Graduate School
TO: Otieno Ray Ayim
C/o Management Science Dept.

DATE: 3rd October, 2018
REF: 53/CTY/PT/27824/2014

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 19th September, 2018 approved your Research Project Proposal for the M.FPA Degree Entitled, “The Relationship between Integrated Financial Management Information System and Performance of Government Ministries in Kenya”.

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University’s Website under Graduate School webpage downloads.

Thank you.

HARRIET ISABOKE
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Management Science Department.

Supervisors:

1. Dr. John Kandiri
C/o Department of Management Science
Kenyatta University
APPENDIX III: RESEARCH PERMIT

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref. No. NACOSTI/P/18/13134/26070

Date: 3rd November, 2018

Ray Ayim Otieno
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “The relationship between Integrated Financial Management Information System and performance of Government Ministries in Kenya” I am pleased to inform you that you have been authorized to undertake research in Mombasa and Nairobi Counties for the period ending 1st November, 2019.

You are advised to report to the County Commissioners and the County Directors of Education, Mombasa and Nairobi Counties before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. STEPHEN K. KIBURI, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Mombasa County.

The County Director of Education
Mombasa County.