

**EFFECT OF INTEGRATED FINANCIAL MANAGEMENT  
INFORMATION SYSTEMS ON FINANCIAL PERFORMANCE OF  
GARISSA COUNTY, KENYA**

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## DECLARATION

This master's project is my original work and has not been submitted for examination in any other university.

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## **DEDICATION**

To my family for always believing in me and being there for me when it most mattered. A debt of gratitude to you all.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>CIDP</b>	County Integrated Development Plans
<b>GoK</b>	Government of Kenya
<b>ICT</b>	Information Communication Technology
<b>IFMIS</b>	Integrated Financial Management Information System
<b>PEM</b>	Public Expenditure Management
<b>PFM</b>	Public Financial Management
<b>SPSS</b>	Statistical Package for Social Sciences
<b>TAM</b>	Technology Acceptance Model
<b>VIF</b>	Variance Inflation Factor

## ABSTRACT

The acceptance of integrated financial management information system in Kenya has been advocated as the best approach in justifying the ensuing effects of public procurement embezzlements that have dogged the public sector since independence. Integrating financial management systems increases capability of controlling and checking of the spending and receipts in Government departments, rises the possibility of accessing the information on financial and working performance, increase ability to access information on Government's cash position and information on economic performance; and increase ability to establish accountability to donors and the public. Despite the introduction of the system at both national and county level, cases of mismanagement of public resources are still rampant. In light of these adverse developments, this research sought to assess the effect of IFMIS on financial performance in County Governments of Kenya with a focus on Garissa County. The study was hinged on the Weick's Model of Organizing, E-technology perfective Theory, Technology Acceptance Model (TAM) Theory and System Theory. The study employed a descriptive research design. The study collected secondary data from the County treasury department on the budgetary allocations towards improvement of various IFMIS subsystems. An ordinary regression model was used for analysis. The study findings revealed that IFMIS has a positive and significant effect on financial performance of Garissa County. An increase in the expenditure towards improvement of the IFMIS system led to an improvement in financial performance of the County in terms of the total revenue collected by the county. The study recommends that county governments need to increase the frequency of using IFMIS for cash management as well as an increase the expenditure towards improvement of cash management IFMIS systems since it will play a significant role in establishing efficiency in financial management leading to better financial performance. The study also recommends that there is a need for county governments to increase the frequency of using IFMIS in financial reporting as well as increase the expenditure towards improvement of financial reporting IFMIS systems since it will result to a significant improvement in financial performance of the county. The study further recommends the county governments should increase the frequency of using IFMIS in internal control as well as increase the expenditure towards improvement of internal control IFMIS systems since it will lead to an improvement in financial performance of the county.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

In undeveloped economies, the procedure of spending readiness and bookkeeping forms are either manual or upheld by in sufficiently kept up in-house framework programming applications. This has had negative effect on the usefulness for the Public Expenditure Management (PEM) frameworks. The consequent nonexistence of reliable and timely revenue and expenditure data for purposes of planning the budget, expenditure breakdown, control, monitoring and reporting has had a negative impact on budget management. The outcome of these has resulted to poor administration of government resources (Matheri, 2016).

The government has had to deal with unnecessary borrowing leading to huge arrears, misallocation of resources, pushing up interest rates and crowding out private-sector investment, where all these narrow down to undermining the effectiveness and efficiency of service delivery within the government body. Encourage, for quite a while the administration has not possessed the capacity to give finish, precise, and straightforward records of their monetary position to parliament or to other invested individuals, including contributors and the overall population. Hence, there is a need for a Public Financial Management (PFM) system (Matheri, 2016).

A better public financial management system leads to better fiscal discipline in the government as well as efficiency in allocation and use of public funds which in turn leads to value for the public money (Mutui & Chirchir, 2014). Diamond and Pokar (2005) indicated that one of the Public Financial Management systems is the Integrated Financial Management Information Systems that guides various financial management practices in the public sector such as accounting, audit, financial reporting as well as financial control. The system has computerized financial management in the public sector. This therefore means that all the critical processes such as budget making and accounting processes, financial reporting is made easier by the system (Bhatnagar & Singh, 2010). Among its benefits is promotion of efficiency, improvement of security in data management as well as leading to comprehensive financial reporting. The final outcome of the adoption of the system is effectiveness in financial management as well as transparency in management of public resources (Hendriks, 2012).

The need for the systems lies in the challenges of financial management in the county governments in Kenya. The auditor general has cited severe cases of funds mismanagement in the public sector especially among the county governments. Mutui and Chirchir (2014) argue that IFMIS is the solution to the problem of funds mismanagement in the public sector.

### **1.1.1 Integrated Financial Management Information Systems**

Ajayi and Omirin (2007) argue that to enhance provision of services in the public sector, there is a need to have a system which promotes efficient utilization of community wealth in an extra competent way. Such a system is the financial management system. The

importance of public financial management systems in the public sector have seen reforms being made on the system in order to have better ways of wealth creation and resource allocation for efficiency in public service delivery (Asselin & Srivastava, 2009).

For the last ten years, the Kenyan government has spearheaded improvements in public management systems aimed at bringing transparency, accountability and efficiency in public resource management. The main focus of the systems has been on various processes such as budgeting, gathering revenue, auditing, accounting as well as reporting and public debt management (GoK, 2011). Matheri (2016) commends the need for these reforms as he argues that they lead to bribery elimination as well as elimination of inappropriate expenditure.

The reforms in the public financial management were spearheaded by the ministry of National Treasury. The ministry has a department called Integrated Financial Management Information System (IFMIS) Department with the sole mandate of managing financial systems in both the national as well as the county governments (Mambo, 2015).

This particular department developed the system in the year 1998 and piloted the same on 10 ministries in the year 2003. After a successful pilot, the national government adopted the system and the deployment to the county governments started in the year 2012 just after the new constitution had been promulgated. The implementation was however slow since by the year 2013, less than half the counties in Kenya (nineteen) were using the system

(Imbuye, 2013). According to RoK (2016), as of now, most counties are using the system to manage their financial activities.

IFMIS gives a stage to a superior recording and handling of government money related exchanges. This permits quick and productive access to solid money related insights at whatever point required. Further to this, it bolsters upgraded straightforwardness and responsibility of the official to parliament, the overall population, and other outer offices. Moreover, IFMIS assumes a noteworthy part in fortifying money related controls and in addition encouraging a full and overhauled picture of duties and consumption on a consistent premise (Kasumba, 2009).

The framework can follow every one of the phases of the exchange preparing from spending discharges, duty, buy, installment ask for, compromise of bank explanations, and bookkeeping of use. This permits a complete picture of spending execution. In conclusion, it gives data which guarantee enhanced proficiency and viability of government money related administration. For the most part, expanded accessibility of extensive money related data in view of past execution and the present position helps budgetary control and enhanced monetary anticipating, arranging, and planning (Imbuye, 2013).

Even though the system has its advantages, its adoption has continued to face challenges. As Rodin-Brown (2008) argues, adoption of IFMIS has suffered challenges ranging from uncoordinated decision making, lack of top management support, technical capacity challenges, increased procurement malpractices and the technicality in the user friendliness

of the system. Most employees indicate that the system is very technical, expensive to manage and maintain as well as complicated to operate. Other challenges associated with the system are changes in the design of the systems documents and poorly coordinated trainings. To this effect, poor adoption has ensured that poor public resources management has continued to exist in both the national and county governments.

### **1.1.2 Financial Performance in County Governments**

The County governments of Kenya have been troubled on the tireless poor presentation in financial supervision due to absence of dependable and immediate information for decision building. Majority of the population measured performance of their County Governments based on; Success for effective and efficient use of County revenue on development projects including infrastructure, health, education, trade and corporate social responsibility (Transparency International, 2014).

The Kenyan government has taken the initiative of addressing the failings of the financial reporting system and it ensures proper governance of the financial records. There was a need for introduction of a computerization system to manage the public finances. A well completed financial report especially in government institution facilitates the achievement of greater clearness, accountability, fiscal concern and, hence, better governance (Kragbe, 2012).

E-transactions is less costly, quick, and consistent process of doing business in the public sector (Wimmer, Chappelet, Janssen & Scholl, 2010). A major issue affecting the development of African economies is their poor financial management systems in various institutions. The institutions are not strong and vibrant; the few mechanisms in place are either ineffective or unsustainable, which tend to have serious effects on economic growth (Waema & Mitullah, 2007).

IFMIS was expected to be a great breakthrough for Kenya's development by ensuring visibility and accountability in the entire procurement process. IFMIS was meant to protect the government against unnecessary spending. Akinyi, (2016) argues that poor performance in the financial management has been a problem in the government of Kenya due to deficiency of consistent and well-timed information required to make viable decisions. Director General's department was tasked to carry out a review on the Financial Management, Accounting and the role of the internal audits and sited shortcomings in the overall management of public sector financial information. The review was aimed at coming up with a strategic plan with an aim of strengthening the systems in line with the PFM requirement; enhancing employee performance through skills development and capacity building in both national government, counties and other independent organizations such as 5 commissions (Reforms, 2013). It also enhanced the operations of public sector in order to improve on budgetary processes and expenditure control.



The financial performance in the public sector such as county governments can be measured by enhanced revenue collection, effectiveness in the utilization of the county resources, efficient use of County revenue on development projects (Cost minimization), sound financial reporting practices as shown by accurate and reliable financial reports, accountability in the use of county financial resources, manageable public debts and sound fiscal responsibility as shown by manageable fiscal deficits. All this can be achieved if a well-functioning financial management system is put in place (Kibui, 2013).

### **1.1.3 Integrated Financial Management Information Systems and Financial Performance in County Governments**

A good performing financial system leads to an increase in social value or efficiency within the systems (Khan & Bhatti, 2008). Mutui and Chirchir (2014) indicated that IFMIS is meant to be used as a mutual structure through institutions, including in the more ambitious schemes for federal, state and local authorities. The combination of IFMIS across the board guarantees that all users follow joint standards, guidelines and measures, with the outlook to reduce threats of mishandling of public funds.

Implementation of IFMIS has shown a positive impact on financial management. The system ensures efficiency, accountability, minimizes unnecessary spending of public funds and improves on the financial management of an institution (Hove & Wynne, 2010). Yeboah, (2015) argued that apart from IFMIS serving as a tool in financial management, it also controls aggregate spending and the deficit; gives priority to expenditures in line with the set policies, strategies and programs on enhanced projects with an objective to

realize maximum productivity and parity in the distribution of funds; spend within the budgets and avoid unauthorized budget reallocations.

Effective implementation of IFMIS has been found to be a necessary and effective tool for improving financial performance of the public sector through improvement of various financial and accounting processes such as revenue collection, budgeting, auditing, accounting and treasury management (Mutui & Chirchir, 2014).

Kragbe (2012) argues that comprehensive monetary supervision and recording in the communal sector is vital provider in realizing better financial performance through greater transparency, accountability and fiscal responsibility. It can facilitate regular budget incorporation and mend accounting and reporting systems thus ensuring improved financial performance (Wescott, Bowornwathana & Jones, 2009).

#### **1.1.4 Garissa County**

The main income generating activities in Garissa County are charcoal vending, poles trade, gum and resin marketing, firewood retailing to the army camps and honey (County Integrated Development Plans, 2013). Garissa County has succeeded to purchase the basic ICT equipment, allocated funds for ICT services and ICT human store (Garissa County, 2013). In its County Integrated Development Plans (2010) the sources of funds for the county are from the national government as well as self-revenue generation activities through taxes. To enhance revenue collection, there is a need for effective financial management systems.

There has been an effort to enhance revenue generation as well as management of funds in the County. This has been seen through efforts by the County to expand its financial management systems and adoption of IFMIS systems. There has also been an effort to enhance transparency, accountability, as well as openness of County financial resources to ensure not only the quantity of service rendered to the public meets its developing primacies, but also the quality of the service (Garissa County, 2013).

## **1.2 Research Problem**

The acceptance of integrated financial management information system in Kenya has been advocated as the best approach in justifying the ensuing effects of public procurement embezzlements that have dogged the public sector since independence (Kihara, 2009). In addition, integrating financial management systems increases capability of controlling and checking of the spending and receipts in Government departments, rises the possibility of accessing the information on financial and working performance, increase ability to access information on Government's cash position and information on economic performance; and increase ability to establish accountability to donors and the public (Omokonga, 2014). Despite the introduction of the system at both national and county level, cases of mismanagement of public resources are still rampant.

Mburu and Ngahu (2013) argue that governments have found it difficult to provide an accurate, complete, and transparent account of their financial position and this lack of information has hindered transparency and the enforcement of accountability in government. In light of these adverse developments, this research sought to assess the

effect of IFMIS on financial performance in County Governments of Kenya with a focus on Garissa County.

The study is also sought to fill existing knowledge gaps on previous studies on IFMIS. Most previous studies focused on success factors on implementation of IFMIS system with little focus on its effect on financial management. Wainaina (2014) studied the effects of integrated financial management information system on financial performance of commercial state corporations in Kenya, Musee (2011) in his study revealed that; sabotage and resistance effectively affect use of IFMIS. The studies by Wainaina (2014) and Musee (2011) focused on implementation of IFMIS while the study by Mburu and Ngahu (2013) focused on Nakuru County. The current study aimed to establish the result of Integrated Financial Management Systems on financial performance in the County Governments in Kenya with a focus on Garissa County. The study therefore sought to answer the question, what is the effect of integrated financial management information systems on the financial performance of Garissa County, Kenya?

### **1.3 Research Objective**

To establish the effect of integrated financial management information systems on the financial performance of Garissa County, Kenya.

## **1.4 Value of the Study**

The study results would be significant to the county as well as the national government ministries in Kenya as well as other public offices. The findings would provide the information on the effects of the implementation of integrated financial management information system on financial performance on addressing the governance issues that have significantly affected the financial function of state ministries in terms transparency, accountability, corruption, fraud, efficiency and effectiveness.

The people in the related profession in the public sector such as procurement profession and the certified procurement body would also find the findings of the study useful because it adds to the body of knowledge on how to reduce the procurement malpractices which are mostly conducted through the IFMIS system.

The scholars and academicians in the field of public finance, procurement and IT would also find useful the findings from the study. They can identify research gaps in the study to enable them pursue further research on the topic. The study recommendations for further studies can also be useful as an opening for areas of further studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the reviewed literature and the theories that guide the study, the previous empirical studies carried out relevant to the study. Finally the study has presented the summary of the major ideas for the study.

#### **2.2 Theoretical Review**

The study will be anchored on the following theories to help explain establish the outcome of IFMIS on the financial performance. The theories adopted by the study include Weick's Model of Organizing, E-technology perfective Theory, Technology Acceptance Model (TAM) Theory and System Theory.

##### **2.2.1 Weick's Model of Organizing**

Weick's model theory of organizing is a very instrumental theory in providing an understanding of an organizational structure. According to Czarniawska (2014), the theory considers the challenging and fast-paced environment of the current business thereby minimizing equivocality. Lecose (2013) states that equivocality implies lack of efficiency resulting from an employee, on any stage, having to check with superiors emanating from bureaucracy and improper organizational structure which influences the organizations' management style. According to Langley *et al* (2013) Weick's model contains an information system of past solved issues.

Feldmann (2013) argues that access of information from the Weick's model enables the Employees to tackle any uncertainty that might delay making business decisions.

The theory is relevant to this study as it elaborates the importance of information systems in achieving better organizational performance. The theory argues that the determination obtained through the use of information systems contributes to a greater output as a result of the simplicity with which structures and policies can be customized to adapt to the existing or expected needs.

### **2.2.2 E-technology perfective Theory**

The E-technology perfective theory involves a broad spectrum of business activities. According to O'Neil and Perez (2013) e-procurement is instrumental in county governments operations particularly E-sourcing and E-collaboration. Saurin and Henringson (2013) posits that the use of e-collaboration enables the suppliers to increase harmonization with the help of the internet and E- government in demand management, inventory management and production scheduling with their clients.

E-technology perfective theory allows for a smooth procurement model (Brousseau, 2000) which facilitates internal process including procedures preceding the restrictions. According to Holand and Kaplan (2013), IFMIS has significant benefits specifically in a public setting.

The theory is relevant to the study as it helps explain more on the role of E-technology in achieving efficiency and cost reduction in procurement activities. E-procurement is part of IFMIS which forms the major independent variable of the study.

### **2.2.3 Technology Acceptance Model (TAM) Theory**

TAM identifies two theoretical constructs including Perceived Usefulness and Perceived Ease of Use that affect the intention to use a system. Several studies have used have used TAM as their academic contextual for explanation on ICT acceptance and usage. Scholars have established that the perceived usefulness has a positive connection with both adoption purpose (Galera *et al.*, 2011) and continuance purpose (Romi *et al.*, 2013).

Perceived use of a new technology has in the past been found to affect satisfaction and attitudes of the users (Nakata and Berger, 2013) while on the other hand, perceived ease of use has been found to affect both the intention to use a new technology as well as the perceived ease of use of the technology. Even though the model is widely praised, it has also faced criticism mainly due to its generality which have greatly ignored the heterogeneity among organizations (Sun & Zhang, 2006).

The theory explains the factors that make the users to accept a certain new technology and use it. Success in adoption of new technologies such as IFMIS is linked to perceived ease of use as well as intention to use the technology. For the County governments to achieve maximum benefits from the use of IFMIS, they need to create awareness on why the technology was adopted and train the users on how to use it.



## **2.2.4 System Theory**

A system is a collection of connected and interacting mechanism, which toils in jointly to attain a desired set of objectives (Kang'ethe, 2002). Control elements guarantees that the procedure yields the desired degree of productivity and decrease wastage. Effectiveness and efficiency calls for the maintenance of an agreement and synergy among the human resource as the central part of resource that gearshift other resources. However, other mechanisms of operation particularly the current ICT facilitate objectives realization of office secretarial management.

Upcoming ICT is instrumental in curbing corruption menace in public finance systems through the promotion of big, articulate, broad and transparent information across administration institutions. Consequently the introduction of IFMIS has termed as a key constituent of public financial reforms in many third world countries.

The theory is relevant as it links to application of various organizational systems to achieve efficiency in an organization and technology is one of the mentioned systems. IFMIS system comprises diverse mechanism that work separately to guarantee appropriate financial management and cash managing is attained in the county government. IFMIS system components influences cash management and forms part of the surrogate variables that are used in cash management.

## **2.3 Determinants of financial performance of county governments**

Financial performance of county governments can be affected by various financial and accounting processes such as financial reporting, budgetary control, internal control, auditing, accounting and treasury management as argued by Mutui and Chirchir (2014). Some of the factors are discussed in this section.

### **2.3.1 Financial Reporting**

According to Simson *et al* (2011) financial reporting plays a significant role in extraction as well as presentation and dissemination of accounts related data which in turn facilitates easier analysis. There is creation of massive reports in the county governments for both internal and external use such as cash flows, monthly reports, revenue reports which shape the foundation of audit and enhance financial accountability. The use of integrated financial management information system allows for the perpetuation of the financial reporting practice which is made easier by the system. The system improves the practicality of financial data analysis (Simson *et al* , 2011).

### **2.3.2 Budgetary controls**

Scarlett (2008) argues that budgetary controls refer to the procedures as well as the principles which guide achievement of objectives through budgets. A system that aides in budgeting mainly help in fixing the organization's goals and the efforts aimed at achieving them. Margah (2005) further posits that budgetary controls are instrumental in a county's economy since it provides preparation for expenditure thereby facilitating methodical expenditure.

The success of a budgetary control systems depends on the support and the acceptance of the individuals in charge of core management positions, (Perrin, 2012). This ensures that lower or middle management positions individuals put more enthusiasm in the budget controls. According to Dorotinsky (2003), IFMIS improve public finance management by enhancing self-reliance and trustworthiness of the budget through higher breadth and precision of information.

IFMIS improve budget planning and effecting by giving appropriate and precise information for budget management and judgment. IFMIS also enables the formulation of a standardized and practical budget across government at the same time enhancing better management over budget implementation fully integrating budget completion data. Further, IFMIS enables devolution of financial processes and functions that are controlled by Ministry of Finance thereby enhancing financial restraint and control of working costs by minimizing managerial responsibilities and the junior staff workload.

### **2.3.3 Internal Controls**

Internal control systems are procedures and policies that have been set up by the administration or a government agency so as ensure the government meets its objectives with regard to the stipulated laws and regulations. According to Hashim (2001), integrated financial management information systems have been successfully implemented and incorporated in the commercial businesses. The IFMIS system control ensures that before a purchase is done, there is adequate cash due for the expense and the allotment matches the suitable budget.

A committee scheduling and control is necessary to be conducted by the sectoral agencies as well as government ministries so facilitate the expenditure of approved amount by parliament for explicit purposes. Walsham (1988) further argues that expenditure control elements are regularly used by the ministry of finance to guarantee that expenditures do not surpass cumulative capital probably less than anticipated budget.

Simson *et al.* (2011) states that policies and procedures have a tendency of covering monetary book-keeping and reporting, performance monitoring, asset management and procurement.

Through IFMIS system, the management is able to manage expenditure prioritization, perform aggregate spending as well as achieve efficiency and equity when allocating resources (Hendricks, 2012). Implementation of IFMIS has numerous benefits such as improved governance, more transparency and accountability, reduced fraud and better monitoring and evaluation.

#### **2.3.4 Accountability**

Hendricks (2012) argues that accountability can be enhanced when the IFMIS system is used. Through that, there is usefulness and improvement in the efficiency of public payments. The system also brings about accountability mainly through tracking of financial activities as well as controlling expenditure.

Diamond and Khemani (2005) further indicated that the benefits of the IFMIS are extensive particularly in the reinstatement of expenditure control and enhanced stages of accountability and transparency. The Commitment Control System helps in curbing overspending and a considerable decline in household debts thus improving the financial performance in the public sector.

## **2.4 Empirical Review**

### **2.4.1 International Studies**

Isidore (2012) focused on how IFMIS enhances financial decision making in two case study organizations in Tanzania. Using descriptive study design, the study focused on thirty four respondents sampled purposively. Primary data collection was conducted and the findings revealed that the use of the system leads to efficiency in financial management in Tanzania.

In another study, Conrad (2013) linked the use of IFMIS and its effect on service delivery in the public sector. The study used primary data and the method of analysis was correlation and regression analysis. The findings revealed that the system enhanced service delivery to businesses. It hastens the interaction among various stakeholders such as government, suppliers and citizens.

On the other hand, in South Africa, Hendriks (2012) sought to establish the risks as well as challenges involved in the implementation of the integrated financial management systems. The study mainly relied on literature review without data collection. The findings revealed

significant challenges of the system especially where the data involved is of large quantity. However, when the IT infrastructure is well maintained, it leads to success.

In Europe, Dener and Young (2013) focused on determining the effects of integrated financial management systems on publishing of open budget data and recommend improvements in budget transparency. A literature review approach was adopted through analysis of reports. The study findings indicated that despite the fact that the system is widely acknowledge and used worldwide, only 12% of the user's portrayed good practices in presenting open budget data from the systems.

Leiderer *et al* (2007) established the outcomes of decentralizing the public management systems in Malawi. Using both questionnaires and interviews, it was established that there was a big challenge in decentralization of public financial management systems due to lack of human resources, political goodwill as well as financial resources. For success, there was a need for capacity development.

### **2.4.2 Local Studies**

Locally, Njonde and Kimanzi (2014) focused on how IFMIS affects performance of the public sector while using a descriptive research design. The data collection instrument was a questionnaire. Method of analysis used was correlation and regression analysis and the findings revealed that IFMIS is effective in the financial reporting and it enhances performance in the public sector.

In another study, Lundu (2010) established the effect of IFMIS implementation on supply chain performance with a focus on the County government of Nairobi. Using a descriptive research design, the study focused on employees in the ICT, procurement and finance sections. Primary data was collected and analyzed using correlations. The effect of IFMIS on supply chain performance was found to enable cost saving, effectiveness, efficiency and an improvement in quality sourcing.

Mwaniki (2013) conducted a study to find out how financial management system affected financial reporting using descriptive research design. The main focus was on the government ministries. Descriptive and inferential results revealed that among the major challenges of implementation of IFMIS system was capacity and organizational change. With enough technical support, top management support and availability of change management strategies, then adoption of IFMIS system would be easier.

Another study by Odoyo *et al.* (2013) focused on how adoption of IFMIS affected cash management practices in the public service. The study used primary data collected through questionnaires. Analysis was conducted using descriptive and inferential techniques. The results of the study showed that the system was reliable and flexible and hence affected cash management positively. It leads to accuracy, timely completion of tasks and consistency in completion of tasks. Further findings revealed that the system has faced a challenge of lack of support from the top management.

Bonface (2016) sought to establish the role of integrated financial management information system on organizational performance in west Pokot County. The study used explanatory non-experimental research design. The target population for the study was 70 employees of the county government of West Pokot. The results of the study revealed that IFMIS system helped organizational performance to effective and efficiency through the following: Cash management contributed to organizational performance by 79%, while budgeting contributed about 80%, Reporting contributed to 77%, and Effective procurement contributed to 72%.

## **2.5 Summary of the Literature Review**

The summary of literature indicates the need to focus on linking integrated financial management system to financial performance of the county governments. This is due to the existing knowledge gaps in the previous studies. Most of the previous studies focused on success factors on implementation of IFMIS system with little focus on its effect on financial management.

Wainaina (2014) studied the effects of integrated financial management information system on financial performance of commercial state corporations in Kenya, Musee (2011) in his study revealed that; sabotage and resistance effectively affect use of IFMIS. The studies by Wainaina (2014) and Musee (2011) focused on implementation of IFMIS while the study by Mburu and Ngahu (2013) focused on Nakuru County. The current study aimed at establishing the result of Integrated Financial Management Systems on financial performance in the County Governments in Kenya with a focus on Garissa County.



## 2.6 Conceptual Framework

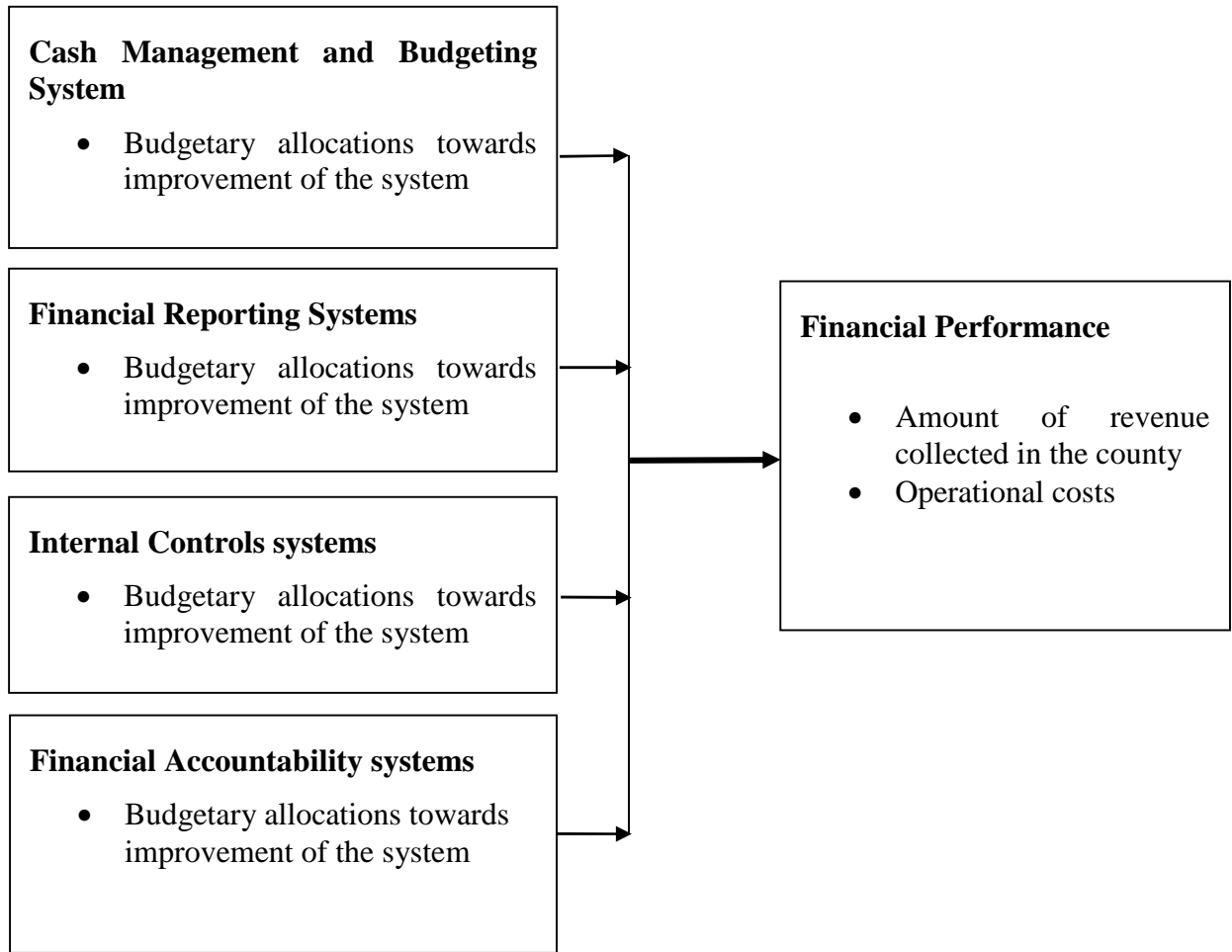


Figure 2.1 Conceptual Framework

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology that was used to achieve the research objectives. The section presents the research design, target population, sample size determination technique, data collection and analysis techniques.

#### **3.2 Research Design**

The study employed a descriptive research design. It was appropriate for this study because it played a role in answering the “what” and “which” questions that are similar to this study’s. The design provides an analysis of description of a state of affairs as it is. The study questions can well be answered if the research design is applied (Mugenda, 2008). To establish the effect of integrated financial management information systems on the financial performance of Garissa County, Kenya, this research design was suitable.

#### **3.3 Population and Sample**

The unit of analysis was the County government of Garissa. The study collected secondary data from the County treasury department on the budgetary allocations towards improvement of various IFMIS subsystems as well as the frequency of use of IFMIS for the last four years from 2013 to 2016.

### **3.4 Data Collection**

The study used secondary data collected through a data collection sheet. The information was collected from the treasury department of the county government of Garissa. The secondary data spanned 4 years from 2013 to 2016 and was on the budgetary allocations towards improvement of various IFMIS subsystems as well as the frequency of use of IFMIS in financial management in the county.

### **3.6 Data Analysis**

Since the data collected was quantitative, the study used descriptive as well as inferential analysis method. Descriptive analysis involving means scores was applied. To establish the effect of the independent on the dependent variable, inferential analysis such as correlations and regressions was applied. Correlation was used to establish the association between the variables while regression analysis was used to indicate the change in financial performance of the County government as a result of a change in the frequency of use of integrated financial management information system. The tool of analysis was statistical Package for Social Science (SPSS V.21).

#### **3.6.1 Regression Model**

A regression model was used to establish the relationship between the study variables. Because of the presence of more than one predictor variable, a multivariate regression analysis was suitable. The model is as indicated:

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

Where Y – Financial performance of Garissa County

$X_1$  – Cash management and budgeting systems

$X_2$  – Financial reporting systems

$X_3$  – Internal control systems

$X_4$  – Financial accountability systems

$\epsilon$  – Is the error term

– Predictor variables coefficients

### **3.6.2 Operationalization of the Study Variables**

The independent variables of the study were Integrated Financial Management Information Systems and Financial Performance in County Governments. Integrated Financial Management Information Systems has been categorized into cash management and budgeting systems, financial reporting systems, internal control systems and financial accountability systems. The data was collected from the finance department of the county where the treasurer was given a secondary data collection template and asked to fill.

**Table 3.1 Operationalization of the Study Variables**

<b>Variable</b>	<b>Type</b>	<b>Measurement</b>
Cash management and budgeting systems	Independent Variable	Monthly allocations towards upgrading of cash management and budgeting system  The number of times the system is used to manage cash and budget in a year
Financial reporting systems	Independent Variable	Monthly allocations towards upgrading of financial reporting system  The number of times the system is used to prepare financial reports (In a year)
Internal control systems	Independent Variable	Monthly allocations towards upgrading of internal control system  The number of times in a year the system is used to perform internal control functions such as payrolls
Financial accountability systems	Independent Variable	Monthly allocations towards upgrading of financial accountability system  The number of times the system is used to reconcile books in a year
Financial Performance	Dependent Variable	Revenue collected by the county

### **3.6.3 Test of Significance**

The study conducted an F test to establish the model significance. A comparison of F calculated was compared to F critical from the F distribution tables. The t statistic was used to establish the significance of the study variables coefficients. These tests were tested at 5% level of significance or 95% confidence level.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

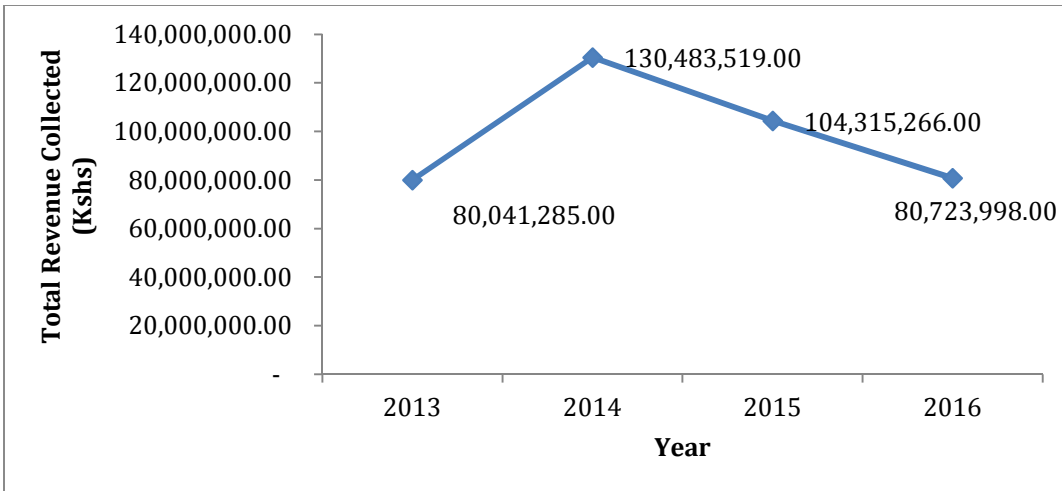
The chapter presents the findings of the data collected and analyzed. The presentation is for the trend analysis, descriptive findings and inferential analysis. Secondary data was used in the study. The trends were used to indicate how the variables changed over time for the last four years. The inferential analysis that is, correlation and regression were used to indicate the relationship between the study variables.

#### **4.2 Trend Analysis**

The study established the trends to indicate the changes in the study variables over the study period spanning 4 years. Secondary data was used for the study. The trends aided in establishing the time effects so as to know the stationarity. The trends of total revenue collected was established which was an indicator of financial performance of Garissa county. The trends were also established for total expenditure in order to establish whether the budget deficits were huge.

##### **4.2.1 Trend Analysis of Financial Performance (Total Revenue Collected)**

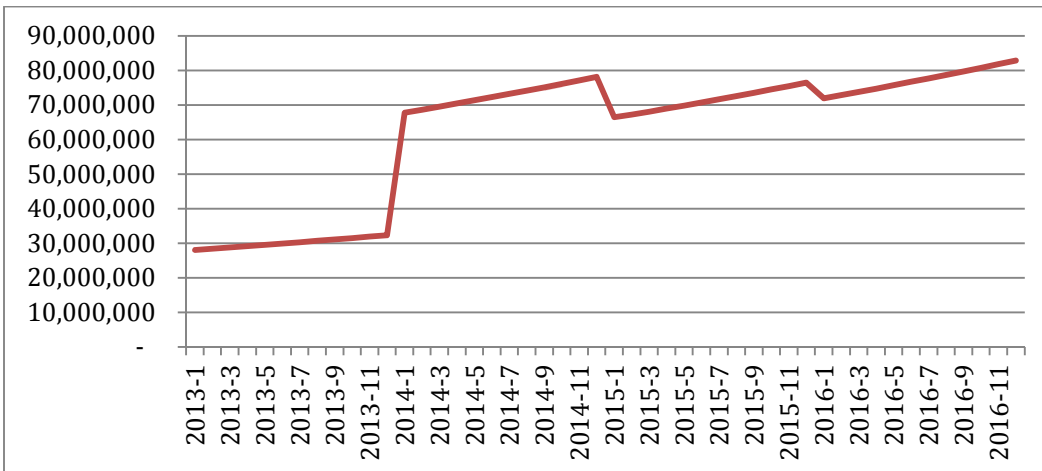
The results revealed increasing trends in the total revenue collected for the financial year 2013 and 2014 after which it started decreasing from the year 2014 to the year 2016. The findings reveal poor performance in the financial performance of Garissa County as shown by decreasing revenue collected for the last 3 years.



**Figure 4.1 Trend Analysis of Financial Performance of Garissa County**

#### 4.2.2 Trend Analysis of Total Expenditure towards Upgrading IFMIS

The study established the trend towards setting ad improvement of the IFMIS system at Garissa County. The findings presented in Figure 4.2 revealed increasing trends towards improvement of the IFMIS system in the county. From the year 2013 to the year 2016, the expenditure on improvement of the system has been steadily increasing.

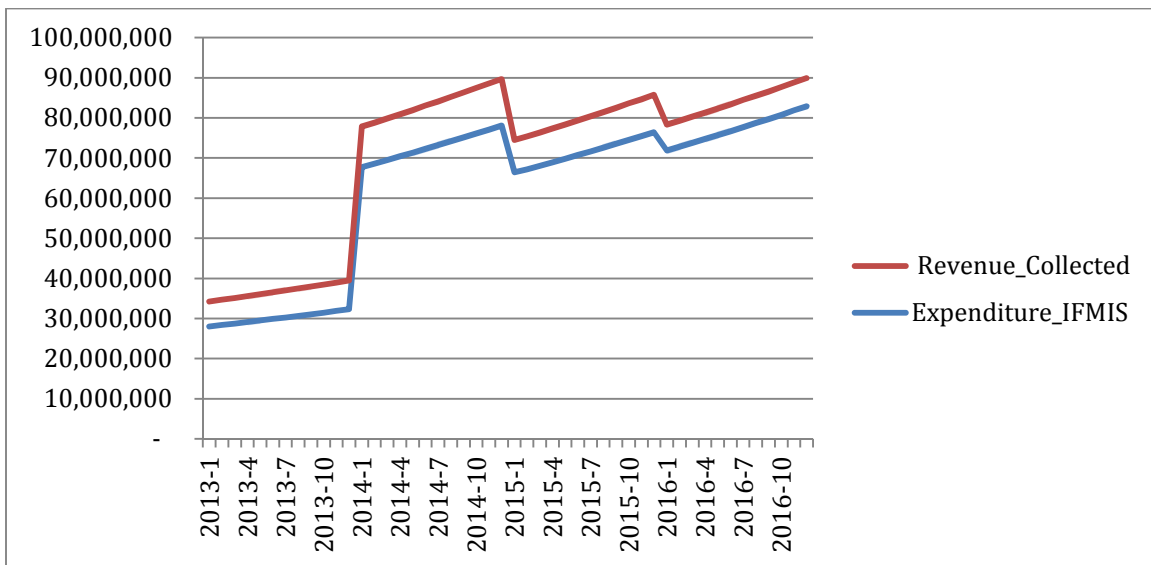


**Figure 4.2 Total Expenditure towards Upgrading IFMIS System**



### 4.2.3 Trends of Expenditure on IFMIS and Financial Performance (Revenue Collected)

The study established the trends of expenditure on setting and upgrading IFMIS system against the financial performance of Garissa County as captured by total revenue collected. The findings in Figure 4.3 reveal that there is increasing trends in the financial performance of Garissa county as the expenditure towards upgrading IFMIS also increases. The findings reveal that IFMIS improves the financial performance of Garissa County.



**Figure 4.3 Trends of Expenditure towards upgrading IFMIS and Financial Performance**

### 4.3 Diagnostic Tests

The study conducted diagnostic tests to establish whether the data was suitable to run an ordinary least square regression model. The tests of Heteroskedasticity, Autocorrelation and Multicollinearity were conducted before running the regression model.

### 4.3.1 Multicollinearity Test

Multicollinearity is said to exist when the independent variables are highly correlated with a correlation above 0.8. The presence of multicollinearity produces spurious standard errors and gives false prediction. This study used a variance inflation factor (VIF) method to test for multicollinearity of the study variables. The results as shown in Table 4.1 revealed that there was no presence of multicollinearity since all the values of VIF were below 10. This implies that the use of OLS in estimating the effect of IFMIS on financial performance would not give spurious results.

**Table 4.1 Variance Inflation Factor Test of Multicollinearity**

	<b>Tolerance</b>	<b>VIF</b>
Cash Management Systems	0.294	3.40
Financial Reporting Systems	0.135	7.422
Internal Control Systems	0.481	2.294
Financial Accountability Systems	0.183	5.459

### 4.3.1 Test of Autocorrelation

The study sought to establish whether the error term of the OLS regression model was auto correlated since the data was collected monthly on a four year period. One of the assumptions of OLS is that the error term should not be auto correlated over time. The study used Durbin-Watson test to establish the presence of Autocorrelation. A value of 2 reveals absence of autocorrelation, a value less than 2 reveals positive autocorrelation while a value greater than 2 reveals presence of negative autocorrelation. The findings in Table

4.2 revealed the presence of positive autocorrelation and hence the study adopted robust standard errors to control for the autocorrelation.

**Table 4.2 Durbin Watson Test of Autocorrelation**

<b>Test</b>	<b>Statistic</b>
Durbin Watson	1.102

### **4.3.2 Test of Heteroskedasticity**

Heteroskedasticity is a situation where the error terms do not have constant variance. One of the assumptions of OLS is that the error terms should have a constant variance (Homoscedastic). To test for the presence of Heteroskedasticity, the study adopted Breusch Pagan Godfrey test and the results in Table 4.3 reveal that since the observed probability chi-square was significant at 5% level of significance, there was presence of Heteroskedasticity. This led to the study running a regression using robust standard errors to control for the effects of Heteroskedasticity.

**Table 4.3 Breusch-Pagan-Godfrey Test of Heteroskedasticity**

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	7.932	Prob. F(4,43)	0.000
Obs*R-squared	20.380	Prob. Chi-Square(4)	0.000
Scaled explained SS	37.525	Prob. Chi-Square(4)	0.000

#### **4.4 Correlation Analysis**

The study established the association between integrated financial management information systems and financial performance of County governments using a Pearson Correlation analysis. The findings are established in Table 4.4.

The findings reveal that there is a positive and significant correlation between cash management systems and financial performance of County governments ( $r = 0.908$ ,  $\text{Sig} = 0.000$ ). This implies that an increase in the frequency of using IFMIS for cash management as well as an increase in the expenditure towards improvement of cash management IFMIS systems leads to an improvement in financial performance of the county.

The findings also showed that there is a positive and significant correlation between financial reporting systems and financial performance of County governments ( $r = 0.677$ ,  $\text{Sig} = 0.000$ ). This implies that an increase in the frequency of using IFMIS for financial reporting as well as an increase in the expenditure towards improvement of financial reporting IFMIS systems leads to an improvement in financial performance of the county.

The results revealed that there is a positive and significant correlation between internal control systems and financial performance of County governments ( $r = 0.680$ ,  $\text{Sig} = 0.000$ ). This implies that an increase in the frequency of using IFMIS in internal control as well as an increase in the expenditure towards improvement of internal control IFMIS systems leads to an improvement in financial performance of the county.

The findings also showed a positive and significant correlation between financial accountability systems and financial performance of County governments ( $r = 0.743$ ,  $\text{Sig} = 0.000$ ). This implies that an increase in the frequency of using IFMIS in financial accountability as well as an increase in the expenditure towards improvement of financial accountability IFMIS systems leads to an improvement in financial performance of the county.

**Table 4.4 Correlation Results**

<b>Correlations</b>		<b>Cash Managem ent</b>	<b>Financial Reporting</b>	<b>Internal Control</b>	<b>Financial Accountabilit y</b>	<b>Financial Performance</b>
Cash Management	Pearson Correlation	1				
	Sig. (2-tailed)					
Financial Reporting	Pearson Correlation	.638**	1			
	Sig. (2-tailed)	0.000				
Internal Control	Pearson Correlation	.786**	.918**	1		
	Sig. (2-tailed)	0.000	0.000			
Financial Accountabilit y	Pearson Correlation	.789**	.825**	.888**	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
Financial Performance	Pearson Correlation	.908**	.677**	.680**	.743**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	48	48	48	48	48
** Correlation is significant at the 0.01 level (2-tailed).						

#### **4.5 Regression Analysis**

The relationship between integrated financial management information system and financial performance of Garissa County government was established using an ordinary regression analysis.

The regression analysis results presented in Table 4.5 indicates that the coefficient of determination (R squared) was 0.958 which implies that 95.8% of the changes in financial performance of Garissa County is explained by integrated financial management information system while only 4.2% of the variation in financial performance of county government is explained by other factors other than integrated financial management information systems.

**Table 4.5: Coefficient of Determination**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.979	0.958	0.954	0.04432
Predictors: (Constant), Financial accountability, Cash management, Financial reporting, Internal Control			

The study also established the model significance of the regression model linking IFMIS to financial performance of county government of Garissa. The study findings revealed that the overall model was significant. The F statistic for the model of 246.304 was significant (Sig = 0.000), hence an indication that the model linking IFMIS to financial performance of county government of Garissa was significant.

To corroborate the findings, the study also used the F-distribution table to obtain the F-critical value (  $F_{0.05(4,47)}$ ) calculated at  $\alpha = 5\%$ , using denominator degrees of freedom of 47 and numerator degrees of freedom of 4 and compared against the F-calculated value

of 246.304. The rule of the thumb is that if F-calculated is greater than the F-critical, then the model is significant. The F-critical value from the F-distribution table was 2.569, which is less than 246.304 hence it confirms the previous findings that the model linking IFMIS to financial performance of county government of Garissa was significant.

**Table 4.6: Overall Model Significance**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.935	4	0.484	246.304	.000
Residual	0.084	43	0.002		
Total	2.02	47			
Dependent Variable: Financial Performance of County Government					
Predictors: (Constant), Financial accountability, Cash management, Financial reporting, Internal control					

The study findings indicated that cash management systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.664, Sig = 0.000). This reveals that one unit increase in the frequency of using IFMIS for cash management as well as an increase in the expenditure towards improvement in cash management systems leads to a 0.664 units increase in financial performance of Garissa County in terms of the revenue collected.



The study findings also indicated that financial reporting systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.466, Sig = 0.000). This reveals that one unit increase in the frequency of using IFMIS for financial reporting as well as an increase in the expenditure towards improvement in financial reporting systems leads to a 0.466 units increase in financial performance of Garissa County in terms of the revenue collected.

The results reveal that internal control systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.805, Sig = 0.000). This reveals that one unit increase in the frequency of using IFMIS for internal control as well as an increase in the expenditure towards improvement in internal control systems leads to a 0.805 units increase in financial performance of Garissa County in terms of the revenue collected.

The effect of using IFMIS in financial accountability was positive but not significant (Beta = 0.056, Sig = 0.125). This implies that a one unit increase in the frequency of using IFMIS for financial accountability as well as an increase in the expenditure towards improvement in financial accountability systems leads to an insignificant increase in financial performance of Garissa County in terms of the revenue collected.

**Table 4.7: Regression Model Coefficients**

<b>Predictor</b>	<b>B</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig</b>
(Constant)	10.161	0.41	24.764	0.000
Cash Management systems	0.664	0.033	20.034	0.000
Financial Reporting systems	0.466	0.042	11.023	0.000
Internal Control systems	0.805	0.074	10.847	0.000
Financial Accountability systems	0.056	0.036	1.567	0.125
Dependent Variable: Financial Performance of Garissa County				

**Financial Performance of Garissa County (Revenue Collected by the County) = 10.161 + 0.664 (Cash Management) + 0.466 (Financial Reporting) + 0.805 (Internal Control)**

#### **4.6 Relationship between IFMIS and Financial Performance of Garissa County**

The study established the relationship between IFMIS and financial performance of Garissa County using an ordinary regression model. IFMIS was measured as the total expenditure by the county on upgrading of the IFMIS systems while financial performance was captured as the total revenue collected by the county. The findings revealed that IFMIS accounts for up to 19.7% of the variation in the financial performance of Garissa County.

**Table 4.8: Model Summary (Effect of IFMIS on Financial Performance)**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.444	0.197	0.18	0.0912
Predictors: (Constant), IFMIS			

The model linking IFMIS to financial performance of Garissa County was significant as established in Table 4.9. The study findings revealed that the overall model was significant. The F statistic for the model of 11.303 was significant (Sig = 0.002), hence an indication that the model linking IFMIS to financial performance of county government of Garissa was significant.

**Table 4.9: Model Significance (Effect of IFMIS on Financial Performance)**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.094	1	0.094	11.303	.002
Residual	0.383	46	0.008		
Total	0.477	47			
Dependent Variable: Financial Performance (Revenue Collected)					
Predictors: (Constant), IFMIS					

The study findings also showed that IFMIS has a positive and significant effect on financial performance of Garissa County (Beta = 0.261, Sig = 0.02). The findings reveal that an increase in the expenditure towards upgrading of the IFMIS system in Garissa County,

leads to an improvement in financial performance of the county. A one unit improvement in IFMIS leads to a 0.261 units improvement in financial performance of Garissa County.

**Table 4.10: Model Coefficients (Effect of IFMIS on Financial Performance)**

	B	Std. Error	t	Sig.
(Constant)	4.865	0.603	8.07	0.000
IFMIS	0.261	0.078	3.362	0.002
a Dependent Variable: Financial Performance (Revenue Collected)				

#### **4.7 Interpretation of Results**

The trends analysis results revealed poor performance in the financial performance of Garissa County as shown by decreasing revenue collected for the last 3 years. The results also revealed that Garissa County spends more than it collects which an indicator is of poor financial management of public resources in the County. Furthermore, the trends analysis indicated unsteady trends in expenditure towards improvement of the IFMIS system in Garissa County.

The findings of the study showed that an increase in the frequency of using IFMIS for cash management as well as an increase in the expenditure towards improvement of cash management IFMIS systems leads to an improvement in financial performance of the county. The findings are consistent with the findings of studies by Isidore (2012) and Conrad (2013) who linked the use of IFMIS to improvement in financial management and financial performance of the public sector.

The findings also showed that an increase in the frequency of using IFMIS in financial reporting as well as an increase in the expenditure towards improvement of financial reporting IFMIS systems leads to an improvement in financial performance of the county. The findings of this study are consistent with the findings of a study by Njonde and Kimanzi (2014) who focused on how IFMIS affects performance of the public sector and established that IFMIS is effective in the financial reporting and it enhances performance in the public sector. The findings are also consistent with the findings of a study by Lundu (2010) who established that IFMIS enables cost saving, effectiveness, efficiency and improvement financial management.

The results further revealed that an increase in the frequency of using IFMIS in internal control as well as an increase in the expenditure towards improvement of internal control IFMIS systems leads to an improvement in financial performance of the county. The findings are consistent with the findings of a study by Odoyo *et al.* (2013) who showed that the IFMIS system was reliable and flexible and hence affected financial performance positively. The findings are also consistent with the findings of a study by Bonface (2016) whose results revealed that IFMIS system helped organizational performance to effective and efficiency through cash management, budgeting and reporting.

The findings also showed that an increase in the frequency of using IFMIS in financial accountability as well as an increase in the expenditure towards improvement of financial accountability IFMIS systems leads to an insignificant improvement in financial performance of the county. The findings are consistent with the findings of a study by Dener and Young (2013) who focused on determining the effects of integrated financial

management systems and indicated that despite the fact that the system is widely acknowledged and used worldwide, only 12% of the user's portrayed good practices in presenting open budget data from the systems thus revealing insignificant effect of the system.

#### **4.7 Chapter Summary**

Findings of the results were presented in the chapter. The findings indicate that there is a positive and significant effect on financial performance when IFMIS is applied in cash management, financial reporting systems and internal control systems. The results however revealed that application of IFMIS in financial accountability has a positive but not significant effect on financial performance of Garissa County government. The results also revealed that 95.8% of the changes in financial performance of Garissa County is explained by integrated financial management information system while only 4.2% of the variation in financial performance of county government is explained by other factors other than integrated financial management information systems. This calls for other studies to focus on the other factors other than IFMIS. The findings of this chapter were useful in making summary and conclusion in chapter five.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary of Findings

The trends analysis results revealed poor performance in the financial performance of Garissa County as shown by decreasing revenue collected for the last 3 years. The results also revealed that Garissa County spends more than it collects which an indicator is of poor financial management of public resources in the County. Furthermore, the trends analysis indicated unsteady trends in expenditure towards improvement of the IFMIS system in Garissa County.

The study findings showed that IFMIS has a positive and significant effect on financial performance of Garissa County (Beta = 0.261, Sig = 0.02). The findings reveal that an increase in the expenditure towards upgrading of the IFMIS system in Garissa County, leads to an improvement in financial performance of the county. A one unit improvement in IFMIS leads to a 0.261 units improvement in financial performance of Garissa County. The study findings indicated that cash management systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.664, Sig = 0.000) implying that one unit increase in the frequency of using IFMIS for cash management as well as an increase in the expenditure towards improvement in cash management systems leads to a 0.664 units increase in financial performance of Garissa County in terms of the revenue collected. The study findings also indicated that financial reporting systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.466, Sig =

0.000) implying that a one unit increase in the frequency of using IFMIS for financial reporting as well as an increase in the expenditure towards improvement in financial reporting systems leads to a 0.466 units increase in financial performance of Garissa County in terms of the revenue collected.

The study findings also showed that internal control systems has a positive and significant effect on financial performance of Garissa County (Beta = 0.805, Sig = 0.000) implying that a one unit increase in the frequency of using IFMIS for internal control as well as an increase in the expenditure towards improvement in internal control systems leads to a 0.805 units increase in financial performance of Garissa County in terms of the revenue collected. The findings lastly revealed that the effect of using IFMIS in financial accountability was positive but not significant (Beta = 0.056, Sig = 0.125).

## **5.2 Conclusions**

The study concluded that an increase in the frequency of using IFMIS for cash management as well as an increase in the expenditure towards improvement of cash management IFMIS systems leads to an improvement in financial performance of the county. The study also concluded that an increase in the frequency of using IFMIS in financial reporting as well as an increase in the expenditure towards improvement of financial reporting IFMIS systems leads to an improvement in financial performance of the county.



The study further concluded that an increase in the frequency of using IFMIS in internal control as well as an increase in the expenditure towards improvement of internal control IFMIS systems leads to an improvement in financial performance of the county. Lastly, it was concluded that an increase in the frequency of using IFMIS in financial accountability as well as an increase in the expenditure towards improvement of financial accountability IFMIS systems leads to an insignificant improvement in financial performance of the county.

### **5.3 Recommendations**

The study recommends that county governments need to increase the frequency of using IFMIS for cash management as well as an increase the expenditure towards improvement of cash management IFMIS systems since it will play a significant role in establishing efficiency in financial management leading to better financial performance. The study also recommends that there is a need for county governments to increase the frequency of using IFMIS in financial reporting as well as increase the expenditure towards improvement of financial reporting IFMIS systems since it will result to a significant improvement in financial performance of the county.

The study further recommends the county governments should increase the frequency of using IFMIS in internal control as well as increase the expenditure towards improvement of internal control IFMIS systems since it will lead to an improvement in financial performance of the county.

## **5.4 Limitations of Study**

However accurate, no study is free of limitations. The data used was secondary in nature and its accuracy is a concern. The researcher is not aware of how it was prepared and the various manipulations and assumptions that were used when preparing and presenting it.

The study only focused on 4 years since IFMIS had not been introduced in Garissa County in the year 2013. Perhaps using a longer time period would have yielded different trends and results. One may therefore ask, do the relationships hold over a 5 year span?.

## **5.5 Areas for Further Study**

The study suggests that further areas of study should focus on a longer time span, probably 5 years with the inclusion of the year 2017 after the budgetary allocations. This would clarify whether the observed relationship changes over the years. Such a study would call for advanced econometric and statistical analysis such as time series analysis.

Future studies can also use both secondary and primary data by including qualitative analysis in the research methodology. This can help to bring out a clear picture of the financial performance. Furthermore, there is a need for inclusion of more than one county government in future studies for comparison of the study findings. This would go a long way in establishing the exact position of the effect of IFMIS on financial performance of county governments.

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## APPENDIX I: Raw Data

The study used secondary on expenditure towards setting and upgrading of IFMIS systems in Garissa County for the last 4 years versus the financial performance of the county captured as total revenue collected by the county. The data was collected from the Finance department of Garissa County. Analysis was conducted using the log of the data.

Year	Expenditure on Upgrading Cash management	Expenditure on Upgrading Financial reporting	Expenditure on Upgrading Internal control	Expenditure on Upgrading Financial accountability	Expenditure on Upgrading IFMIS	Financial Performance (Revenue Collected)	Total Expenditure
2013-1	6,444,864	3,362,538	8,126,133	10,087,614	28,021,149	6,210,007	215,547,301
2013-2	6,528,648	3,406,251	8,231,773	10,218,753	28,385,424	6,290,737	218,349,415
2013-3	6,613,520	3,450,532	8,338,786	10,351,596	28,754,435	6,372,517	221,187,958
2013-4	6,699,496	3,495,389	8,447,190	10,486,167	29,128,242	6,455,359	224,063,401
2013-5	6,786,589	3,540,829	8,557,004	10,622,487	29,506,909	6,539,279	226,976,226
2013-6	6,874,815	3,586,860	8,668,245	10,760,580	29,890,499	6,624,290	229,926,916
2013-7	6,964,187	3,633,489	8,780,932	10,900,467	30,279,076	6,710,406	232,915,966
2013-8	7,054,722	3,680,724	8,895,084	11,042,173	30,672,704	6,797,641	235,943,874
2013-9	7,146,433	3,728,574	9,010,720	11,185,722	31,071,449	6,886,010	239,011,144
2013-10	7,239,337	3,777,045	9,127,860	11,331,136	31,475,378	6,975,528	242,118,289
2013-11	7,333,448	3,826,147	9,246,522	11,478,441	31,884,558	7,066,210	245,265,827
2013-12	7,428,783	3,875,887	9,366,726	11,627,660	32,299,057	7,158,071	248,454,283
2014-1	13,546,524	10,159,893	16,933,154	27,093,047	67,732,618	10,073,627	521,020,136
2014-2	13,722,628	10,291,971	17,153,285	27,445,257	68,613,142	10,204,584	527,793,397
2014-3	13,901,022	10,425,767	17,376,278	27,802,045	69,505,112	10,337,243	534,654,711
2014-4	14,081,736	10,561,302	17,602,170	28,163,472	70,408,679	10,471,627	541,605,223
2014-5	14,264,798	10,698,599	17,830,998	28,529,597	71,323,992	10,607,759	548,646,091
2014-6	14,450,241	10,837,681	18,062,801	28,900,481	72,251,204	10,745,660	555,778,490
2014-7	14,638,094	10,978,570	18,297,617	29,276,188	73,190,469	10,885,353	563,003,610
2014-8	14,828,389	11,121,292	18,535,486	29,656,778	74,141,945	11,026,863	570,322,657
2014-9	15,021,158	11,265,869	18,776,448	30,042,316	75,105,791	11,170,212	577,736,852
2014-10	15,216,433	11,412,325	19,020,541	30,432,866	76,082,166	11,315,425	585,247,431

Year	Expenditure on Upgrading Cash management	Expenditure on Upgrading Financial reporting	Expenditure on Upgrading Internal control	Expenditure on Upgrading Financial accountability	Expenditure on Upgrading IFMIS	Financial Performance (Revenue Collected)	Total Expenditure
2014-11	15,414,247	11,560,685	19,267,809	30,828,494	77,071,234	11,462,525	592,855,647
2014-12	15,614,632	11,710,974	19,518,290	31,229,264	78,073,160	11,611,538	600,562,771
2015-1	13,950,303	6,643,002	17,936,104	27,900,607	66,430,016	8,102,939	511,000,122
2015-2	14,103,757	6,716,075	18,133,401	28,207,513	67,160,746	8,208,277	516,621,124
2015-3	14,287,106	6,803,384	18,369,136	28,574,211	68,033,836	8,314,985	523,337,198
2015-4	14,472,838	6,891,828	18,607,934	28,945,676	68,918,276	8,423,079	530,140,582
2015-5	14,660,985	6,981,421	17,453,553	29,321,970	69,814,213	8,532,579	537,032,409
2015-6	14,851,578	7,072,180	17,680,449	29,703,155	70,721,798	8,643,503	544,013,831
2015-7	15,044,648	7,164,118	17,910,295	30,089,296	71,641,181	8,755,869	551,086,011
2015-8	15,240,229	7,257,252	18,143,129	30,480,457	72,572,517	8,869,695	558,250,129
2015-9	15,438,351	7,351,596	18,378,990	16,173,511	73,515,959	8,985,001	565,507,380
2015-10	15,639,050	7,447,167	20,107,350	16,383,767	74,471,667	9,101,806	572,858,976
2015-11	15,842,358	7,543,980	15,087,960	16,596,756	75,439,799	9,220,129	580,306,143
2015-12	16,048,308	7,642,052	15,284,103	16,812,514	76,420,516	9,339,991	587,850,123
2016-1	7,188,985	7,907,883	14,377,970	15,815,767	71,889,848	6,427,000	552,998,829
2016-2	7,282,442	8,010,686	14,564,883	16,021,371	72,824,416	6,478,416	560,187,814
2016-3	7,377,113	8,114,825	15,491,938	16,229,649	73,771,133	6,530,243	567,470,255
2016-4	7,473,016	8,220,317	15,693,333	16,440,635	74,730,158	6,582,485	574,847,369
2016-5	7,570,165	8,327,181	15,140,330	16,654,363	75,701,650	6,635,145	582,320,384
2016-6	7,668,577	8,435,435	15,337,154	16,870,870	76,685,771	6,688,226	589,890,549
2016-7	7,768,269	8,545,096	15,536,537	17,090,191	77,682,686	6,741,732	597,559,127
2016-8	7,869,256	8,656,182	15,738,512	17,312,364	78,692,561	6,795,666	605,327,395
2016-9	7,971,556	8,768,712	15,943,113	17,537,424	79,715,565	6,850,031	613,196,651
2016-10	8,075,187	8,882,705	16,150,373	17,765,411	80,751,867	6,904,831	621,168,208
2016-11	8,180,164	8,998,181	16,360,328	31,902,640	81,801,641	6,960,070	629,243,395
2016-12	8,286,506	9,115,157	16,573,013	32,317,374	82,865,063	7,015,751	637,423,559