IMPLEMENTATION OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM AND THE PENDING BILLS OF COUNTY GOVERNMENTS IN KENYA

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DECLARATION

This research project is my own original work and has not been submitted for examination in any other University. To the best of my knowledge and belief, the dissertations contained herein contains no materials previously published or written by another person except where due reference is made in the thesis itself.

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

JANET APIYO KAGALI

D61/10014/2018

This research project has been submitted for examination with my approval as a University Supervisor.

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

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My first appreciation to most high God, for his grace and faithfulness enabled me to complete this study. I would like to express my sincere and utmost gratitude to my family for being there for me throughout the period in which I was undertaking by studies at the University of Nairobi. My sincere thanks goes to my Husband who encouraged me and gave me all the support that I needed. To my supervisor too, I would like to appreciate him for his guidance and advice during the course of this research project and thesis writing. Not to forget my course lectures and my friends for their moral support.

DEDICATION

I dedicate this research to my parents who laid a good foundation for me so that I can have the best in life. I will always love and treasure you. I will also not forget my husband who dedicated his time to see me through this study to completion.

ABSTRACT

Following the implementation of new constitution in Kenya in 2010, which aimed at a devolved government system, that would involve devolving huge resources, the adoption of Integrated Financial Management Information system has been very instrumental to realize the goal of effective management of public resource. The devolved resources need to be managed effectively and efficiently. This study therefore sought to assess the contribution of IFMIS on management of pending bills in county governments in Kenya. The specific objective of the study was; to analyse the effectiveness of invoice processing in IFMIS on the management of pending bills; to verify the effects of funds availability on the management of pending bills; to establish how Transparency and Accountability affects the management of pending bills and to assess how financial reporting systems have affected management of pending bills in County Government in Kenya. To achieve these objectives, a regression research design was used with the study population being employees of county government who are tasked with accounts, finance and procurement. The primary data was collected using questionnaire that related to the specific objective, Secondary data on the other hand involved past audited reports form KENAO for the period 2014 - 2018. The study used both quantitative and qualitative methods of data analysis. The data was analysed using SPSS to generate descriptive and inferential statistics to describe the results of the study. The finding of the study revealed that the four practices which are Invoice processing, funds availability confirmations, transparency and accountability and effective and efficient financial reporting systems have a positive and significant effect on management of pending bills. Variation in IFMIS practices explained a variance of 69.8% in management of pending bills having controlled for background characteristics.

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LIST OF ABBREVIATIONS.

IFMIS	Integrated Financial Management Information System
PFM	Public Financial Management
SPSS	Statistical Package for Social Sciences
IT	Information Technology
IPPD	Integrated Personnel Payroll Data
ICT	Information and Communication Technology.

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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Integrated Financial Management Information System (IFMIS) is a system that combines various accounting activities under one ñonline platformò. The different activities known as modules in IFMIS ranges from management of cash, creditors, debtors, budgets, audits, procurement and general ledger. The 21st Century thus saw many developing countries embarking on integrating and automating their Public Finance Management systems to improve on expenditure control leading to accountability and integrity. In his study, Hove & Wynne (2010:8), found that for accountability and prudent use of public resources ñtrackingò of financial processes and procedures was required through automation which is achieved by implementation of IFMIS. Diamond and Khemani (2006:99) in their study argued that IFMIS as a tool of management supported change and thus it spearheaded the budgetary reforms which ensures ñopenness, accountability, public participation in public finance management, equitable sharing of resources, equitable sharing of burdens and benefits of public borrowing and prudence in management of resources and fiscal disciplineò, Public Finance Act: 2012.

A number of scholars have come up with theories that will inform this study. The System Theory by Flood and Jackson (1991), posits that a system is made of interconnection components working towards a common goal thus the whole being greater than the sum of its part. County government operates as a system which has a collection of individuals, various departments, machines working together to achieve a common goal of grater service delivery to its citizens. The theory of Public Administration Theory (Max Weber 1922; Woodrow Wilson and Fredrick Taylor) defines the meaning, structure and the functions of public service. They divided the public administration into two which is administrative and political sectors. The scholars noted that bureaucracy which is a rational form of administration affects public institutions and for proper administration Taylorôs thought of standardizing work, orderly

control and various leveled organization are a fit for the organization administration. The Social Construction of Technology Theory (SCOT), by Trevor Pinch and Weibe Bijkers (1987), argue that technology does not determine the behavior of human rather human actions are the one that shape technology. Thus technology is embedded on the social context

IFMIS in County Government has lots of benefit where it has been properly implemented which includes, reliable budgetary processes, speed and reliability in payment processes, timely reporting for decision making, ability to detect fraud through use of audit trail and good governance among others (Dr. Christopher 2019). Despite, IFMIS having been implemented in County Governments in Kenya, they are still experiencing rising pending bills and this is a red flag indicating unwarranted expenditure, poor financial planning and inability of appropriate financial report generation. According to Controller of Budget Annual Report the rise in pending bills are as a result of delay in payment to contractors and suppliers which is due to cash shortage experienced by most of counties. The cash shortage is due to delay in transfers of funds from the National Government. Also low revenue collection due to unachieved targets is also a major concern leading to shortage of cash. Similarly, legislation issues which enforce enactment of crucial laws have led to delay in payments. At the end of the year Counties are rushing to make payment through IFMIS, this slow down the system due to overload and thus inefficiencies are experienced. According to the report of office of Auditor General of Kenya on the effectiveness review of IFMIS, the implementation and adoption levels by the year 2014 was as low as 22.14% with counties accounting for 6.08%. The review is thus an indicator of reasons why IFMIS has not been able to achieve its objective in public financial management in Kenya especial in County Governments leading to the share of problems faced for lack of proper implementation of IFMIS.

1.1.1 Implementation of IFMIS in the County Financial Systems

IFMIS is a form ERP system that integrated accounting systems under one online platform to increase efficiency and accountability hence service delivery. According to Diamond & Khemani, 2005: and Rodin-Brown: Hendricks, 2012, Integrated Financial Management Information System integrates the government operations right from

budgeting through to implementation and execution and finally reporting. A study carried out by both Dorotinsky (2003) and Rozner (2008) found that IFMIS can be able to track financial transactions leading to a prudent and sound financial system. IFMIS has a number of menus known in other words as modules that enable its function, these are Plan to Budget (P2B); Procure to Pay (P2); Revenue to Cash (R2C); Record to Reports (R2R) and Interfaces. IFMIS supports reporting for decision making, responsibility and it enables auditing function of financial statements. One great advantage of IFMIS is its capability to integrate with other existing automated systems such as Government Payment Solution (G-pay), Integrated Personnel Payroll Data (IPPD) as well as CBK and KRA (Diamond &Khemani ,2005: Rodin-Brown, 2008).

IFMIS is a catalyst for economic growth and development. And its proper implementation is seen to ensure efficiency and effectiveness in management of resources in public sector (Asseliln $ Srivastava, 2009). County Governments in Kenya are required to implement IFMIS so as to ensure efficiency and transparency and as a result the system ensures that automation of payment process in procurement, budgeting and payment to suppliers among others. County government in Kenya have not gained fully from IFMIS as a result of lack of proper implementation. Financial reforms in Public Service Sector that gave rise to automation of financial systems (IFMIS), has had low adoption levels of 22.14% by June 2014 Auditor General report (2010 to 2014) with Counties accounting for 6.2%. IFMIS is a complex system and this has also been a hindrance to proper implementation with low capacity levels which poses the risk of system failure (Hove & Wynne 2010). The implementation has not been properly done and various challenges have been identified that have hindered its full implementation. Some of the challenges include inadequate infrastructure, management are not in support and thus sabotage implementation, lack of enough skills and corruption (Robin-Brown, 2008; Hendricks, 2012).

1.1.2 Pending bills

Pending bill in the public finance context is a form of credit advanced by the creditors (Suppliers) to a government. Its usually in form of completed projects, work-in-progress, and commitments in Local Purchase Order (LPO) or Local Service Order (LSO).

Government entities procure services and goods from different organizations, and they are expected to make the payment as soon as the obligation has been met by the suppliers. But this has never been the case leading to pending bills which arise as the results of unpaid amounts at the close of the year for service rendered or supplies made.

Counties in Kenya use the Cash Accounting Basis. With cash basis accounting, bills should be honored immediately they are drawn but due to issues such as shortage of cash, delayed legislations, congestion on IFMIS during year end among others has led to increased pending bills due to non-payments. According to Mihriban Coskun Arslan (2017), they found out that Cash accounting system is open to abuse for example, postponing of the payments of debts of the current fiscal year to the next year this leads to high pending bills for public institution.

Counties Government in Kenya are faced with rising pending bills and this is an indicator of fiscal indiscipline since the budget is not utilized as intended within the year. Because counties use cash basis accounting, it should be noted that, these pending bills exclude those not stated in the financial statement. The rise in pending bills can be attributed to delayed payments which is due to cash shortages, delay in funds transfer from the national government, Low revenue collections, legislation issues among others.

1.1.3 IFMIS in County Governments in Kenya

The Counties framework in Kenya are Geological units of a devolved government as per the powers given in County Government Act of 2012 and Articles 191 and 192, of the Constitution of Kenya and the County governments were established in 47 counties (largely based on the 1992 Districts of Kenya), after the scheduled general election in March 2013. The Constitution of Kenya further spells out how public resources should be prudently managed through the creation of various legislation that include PFM Act 2012. The Constitution has therefore mandated the Senate under Article 96 to not only protect the interest of counties but also to promote and safeguard accountability and openness in the manner the Counties are conducting their affairs.

The County Government in Kenya are all expected to implement IFMIS as part of an integral system. The integration is key for a successful implementation of the system. There are various key functions within which the county government operates including budgeting, exchequer unit processes, expenditure approvals and payment processes, payroll, procurement among others.

The reports from Auditor General on pending bills indicate that most of the counties have high risk ranging between 50% and 80%. In 2014/15 the report showed that out 47 counties only 40 of them reported on pending bills. Therefore, it is possible that the pending bills could be even more. The PFM Act and the PPDA Act both provides that ñno commitment and no tender should be issued without adequate budgetary allocations.ò And in regards to this inclination it creates basis to conclude that the relevant laws and regulations are not being adhered to. From the Auditor report pending bills for FY 2013/14 were worth 62.8 billion of which, Nairobi county had the largest pending bills worth Kshs. 58. billion, followed by Nakuru at 1.3 billion and Machakos at Kshs. 712.9 million. In addition, and as demonstrated, most of the counties incur pending bills which usually disrupt budget activities at the beginning of the following years since it is the first charge at the beginning of the financial year. Further it has been observed that the schedules which give rise to these pending bills do not include invoices, fee notes and delivery notes which makes it difficult to ascertain the authenticity of the pending bills across most of these counties. Notably, The Nairobi City County had a total of Pending bills amounting to Kshs 78.9 million as at June 2014/15, the completeness, accuracy and validity could not be confirmed due to end of year exclusion.

1.2 Research Problem

The importance of IFMIS implementation in the public sector cannot be ignored since it leads to efficiency and effectiveness in management of public resources thus improving service delivery to its citizens. Hawo (2015), in his study on the Impact of (IFMIS) within the budgetary management of public sector, found that if proper systems that aid financial management are put in place, then positive results would be realized. Similarly, Muigai (2012) found out that IFMIS is among the major components of financial reforms that affect positively financial management. The implementation of IFMIS has proven to

be critical especially for the developing countries and its success has been futile (Chene, 2009). According to World Bank report (2014), there is need for continuous implementation cycle of budgets and reliable exchequer releases which would enhance credibility in IFMIS financial processes. Lack of proper management of budget and credibility in budgeting process and release of exchequer leads to realization of huge pending bills and this is detrimental to the economy. Such a trend leads to liquidity issues coupled with poor financial performance (World Bank report). Kragbe (2012) argues that comprehensive monetary supervision and recording in the expenditures and finance sector is a vital provider in realizing better financial performance through greater transparency, accountability and fiscal responsibility.

According to Moseba (2012) and Aketch (2013) the Government of Kenya with an aim of improving the public sector in terms of financial management, required that all County Government to adopt IFMIS as a management tool with the hope that it would realize the benefits and improve service delivery to its Citizens. Despite IFMIS having been implemented it has not yielded the much expected results, as a lot of irregularities are still on the rampart and there is still fraud and corruption. According to Auditor Generalôs report (2019) there were a lot of falsified pending bills in most of the county governments reports to a tune of Kshs 35 billion with most of them in form of pending bills to contractors. In most County Governments, IFMIS has led to delays in procurement processes since some activities are still done manually, for some processes users are not able to complete all process due to lack of availability of funds, duplication of supplier balances have been detected, and also there are delays in master creation bringing a cascading effect of delay in making payments to suppliers. All these have led to the growing pending bills that is a threat to the economy. In addition, most Counties are being faced with massive misuse of public funds, lack of project implementation, over accrued bills has also been observed at the county level and all this have hindered service delivery. ñAudit reports have also revealed that a number of counties do not comply with the Public Procurement and Disposal Act of 2005 or (Public Procurement and Disposal Act of 2015) when procuring goods and services and in paying of bills.

There have been recent studies linking IFMIS implementation and performance. According to Kinyua 2003, poor performance is as a result of lack of timely and reliable information. Chuma (2014) on impact of IFMIS on financial management of public sector found that budgeting, internal controls and reporting systems play a vital role in financial management. Imbuye (2013) in his study on IFMIS implementation highlighted the gaps and weaknesses within the Soft Issues Bid Evaluation Took (SIBET) System that was being used. He noted that the interfaces were not being used optimally. Also according to Karanja and Ngôangôa, 2014 IFMIS implementation did not achieve its key objectives within the set timelines thus requiring its re-engineering. In addition, challenges can have a devastating effect on the success of IFMIS implementation if its management is not properly done (Rodin-Brown; 2008). Therefore, a completely operational IFMIS can advance good governance by providing real time fiscal information and improve transparency and accountability, thus reducing administrate discretion and elimination of fraud (Diamond & Khemani, 1991.

A study to understand the relationship that exists in the implementation of Integrated Financial Management Information System and pending bills for county government in Kenya Context is not found in literature. It is because of this backdrop that the current study sought to fill the gap by exploring the effectiveness of IFMIS on management of pending bills by answering the following research question; To what extend does effective implementation of IFMIS affects the management of pending bills in County Governments of Kenya?

1.3 Objectives of the Study

1.3.1 General Objective of the Study

The general objective of this study is to determine the relationship between implementation of IFMIS in relation to effective management of pending bills for County Governments in Kenya.

1.3.1 Specific Objective of the Study

i) To analyse the effectiveness of invoice processing in IFMIS on the management of pending bills in county governments in Kenya.

ii) To verify the effects of funds availability on the management of pending bills in county governments in Kenya.

iii) To establish how Transparency and Accountability affects the management of pending bills in County Governments in Kenya.

iv) To assess how financial reporting systems have affected management of pending bills in County Government in Kenya.

1.4 Value of the study

This study will be useful to policy makers in that it would help them to develop policies and regulations that would be able to address the identified gaps within the study on matters of growing pending bills so as to improve on service delivery to its citizens.

The findings in this study will be useful to the county management on issues relating to prudent financial management, transparency and accountably. From the identified challenges the County authorities and government planners may come up with plans on how to implement IFMIS in totality.

For Researcher, Scholars and Students, the study aims at sealing the gaps in the literature on the implementation of IFMIS in relation to management of pending bills. This study add to the existing literature on IFMIS and public financial management for of pending bills for County Government financial systems.

CHAPTER TWO:
LITERATURE REVIEW

2.1 Introduction

In this chapter, theoretical and observational writing review of the study will be discussed. The theoretical review seeks to review the literature that forms the basis of the study and making comparison on the findings from other researchers. The empirical review deals with experiences in IFMIS taking into consideration both independent and dependent variables that will be explained in this chapter.

2.2 Theoretical Review

The study will be based on the following theories: Institutional Theory, Public Administration Theory and Social Construction of Technology Theory. These theories are explained in details below:

2.2.1 Institutional Theory

According to Douglas North (1991), he defines institution as ñhuman derived constrains that structures political, economic and social interactionsôò Thus the theory resolves around constraints which he identified as constitutions, laws, property Rights and also informal restrains which include sections, taboos, customs, traditions, code of conducts all which contribute to the order and safety of a society. Institutional theory takes a sociological view of reciprocal interactions between institutions and society.

ñInstitutions are social structures that have gained a high degree of resilienceôò (Scot 2001). He Identified three different systems that support social institutions that is Normative, cognitive and regulatory systems. The normative system consists of rules that are normative that introduce a perspective, obligatory and evaluative, dimensions into social lifeô (Scott 2011). On the other hand, ñCognitive system constitutes the nature of social reality and the frames through which meaning is Madeô (Scott 2001). And in the regulatory system, both formal and informal rules set, monitored and enforced by

means of laws, regulations, and policies which will restrict and promote behavior within a country (Busenitz, Goacutemeza, Spencer, 2011)

Therefore, social knowledge and individualôs cognitive structures will combine to represent a countryôs cognitive environment. Thus, in context where competitive institutional pressures exert strong influence, the strategic decisions of managers result in conformity to institutional pressures, in turn which leads to legitimacy and in differentiation, thereby increasing the possibility of creating a competitive advantage through heterogeneity in resources and capabilities. In this study compliance to government policies is an effective tool in management of pending bills.

2.2.3 Theory of Public Administration Theory

In this theory there is a collection of historical theories that are amalgamated to form one major theory. The theories include Organization theory, Social theory, and political theory. These theories focused on bureaucracy and epistemology. Max Weber (1922) was the father of the theory together with Woodrow Wilson and Fredrick Taylor. Their theories focused on meaning, structures and functions of public service. ôôMax Weber considered bureaucracy to be a rational form of administration yet devised by man.ôô Woodrow Wilson also defined public administration as execution of public laws in a systematic way. He divided government institution into two distinct sectors which are administrative and political, viewing the administration part as a form of business lying outside politics. According to Max Weber (1922) ideal model, public administration takes into account accountability, state-citizen relations, and efficient service delivery coupled with scarce resources.

This theory is applicable in this study as county government form part of public entities constituted to provide services to its citizens efficiently. Taylorôs thought of standardizing work, orderly control and various leveled organization are a fit for the county government administration. Integrated Financial Management Information system aims at ensuring accountability and managing scarce resources efficiently.

2.2.4 Social Construction of Technology Theory (SCOT)

SCOT, trances its origin to Trevor Pinch and Weibe Bijkersôs (1987) article. The article suggests how technology is determined by social aspect surrounding it. This is a theory encompassing science and technology. Originally SCOT developed privately as an academic enterprise, but later it was advanced and made pertinent in approach space, development management additionally in other shapes of democracy. In addition, SCOT conceptualizes the hardness and obduracy of technology. Those in support of the theory argue that technology does not determine the human action but that human actions are the ones that shape technology. Thus to understand how technology works, one has to first understand how technology is embedded in the social context. The theory leads to understanding why there is acceptance or rejection of technology. Not only being a theory, SCOT is also a methodology that addresses the steps and principles for adoption when analyzing the cause of failure or success of technology. IFMIS was adopted as technology was changing fast requiring automation in the public sector. The move to fully implement IFMIS calls for key adjustment and implementation. IFMIS has been faced with challenges including resistance from its users an indicator that the system is not used optimally. Growing pending bills have been attributed to poor use of IFMIS and SCOT will help in the study to help identify the key areas in IFMIS that are facing resistance and improve on them.

2.3 Empirical Review of Literature

An empirical review of literature was conducted to examine existing studies that focus on IFMIS practices and pending bills management. The purpose of this review was to identify gaps, which the study could address.

2.3.1 Invoice Processing and Management of Bills

Anwar (2011) used a case study to analyze automation system of financial invoice as a function of efficiency and effectiveness of invoice processing in the context of procurement. The understanding that financial invoice processing remains a critical practice in business operations motivated Anwar. According to Anwar, in an endeavour to improve invoicing process a company by the name Perintis Mondiri had put in place a financial automation system known as IAS for purposes of invoice processing. Using a

qualitative approach that relied mainly on observations to examine the effectiveness and efficiency of the system, Anwar (2011) concluded that the automated system to invoicing was more effective that the manual approach. Anwarôs study highlighted the importance of automated invoicing approach. However, it did not address the direct impact such automation could have on management of pending bills. Moreover, observation as an approach though informative, was not ideal for cause-effect relationship such as probed in this study. Pessi (2017) examined the impact that implementing an electronic system to the purchase invoice had on the performance of a company. Buoyed by the understanding that cutting expenses is a sure way to remain competitive, Pessi (2017) targeted the financial officer and employees of a company drawn from the Hahle group of companies. The study combined interviews and open e-mail questionnaire to collect data, and established that an electronic purchase invoice system facilitated elimination of duplication, reduced reporting timelines, and improves the entire process. While the study by Pessi (2017) adds to existing discourse on the utility of electronic invoicing, the context of Hahle group of companies differs with county government context. It was therefore necessary to examine automated invoicing process achieved through IFMIS in the county governments in Kenya.

Billentis (2019) examined the e-invoicing journey in the period 2019-2015. The motivation behind Billentis examination was informed by a forecast that showed that the global market is set to encompass 550 billion invoices annually by the year 2035. Consequently, the digital transformation becomes the imperative as opposed to being an option. Using a review of newsletters and market reports, Billentis (2019) agreed that invoice processing remains a critical topic in market transition. Billentis contends that business process automation and e invoicing could be the solution to todayôs market challenges. The findings by Billentis (2017) with regards to the central role automation and e-invoicing are poised to play in addressing market challenges is no doubt a good contribution to the endeavor to remain competitive. However, market challenges are diverse and may not be comparable to challenges that face public entities such as pending bills. It was therefore necessary to examine automation of invoicing and management of pending bills from a public service context. Bezuglov (2018) examined ways through which invoice handling at accounts payable would be optimized in the case of

Boxshipping AB Company. The study adopted the qualitative case study that relied on semi-structured interviews to collect data from individuals drawn from accounting and operations departments. Moreover, direct observations of invoice handling were also made. Without being explicit on the data analysis approach, Bezuglov (2018) established that there was a need to put in place a plan that could optimize handling of incoming invoices with a view to improving operational efficiency and accuracy. Bezuglovôs findings confirm that invoice handling can be quite a challenge and therefore automating them would go a long way to guarantee operational efficiency. Relying on qualitative approaches and not being explicit on analysis approaches however, raises validity concerns. There was therefore need to consider alternative approaches such as multiple regressions that are suitable for cause-effect studies.

2.3.2 Funds availability and Management of Bills

Funds availability though not featuring explicitly, has been referred to using its proxies such as infrastructure capacity building and expert outsourcing. Sigei (2013) for instance, examined success factors that are critical to the implementation of IFMIS in the context of government ministries in Kenya. Using the survey design, Sigei sampled 54 individuals by stratifying across various users of ICT. Data was collected using a questionnaire. Once again, without being clear on the approach to analysis Sigei (2013) established that appropriate infrastructure, capacity building and availability of experts were among the critical success factors to implementation of IFMIS. Sigeiôs study makes significant contributions in relation to provision of funds for capacity building, infrastructure provision and outsourcing of experts. However, the study by Sigei does not show the direct impact of funds availability on management of pending bills. There was need to examine funds availability as a practice in IFMIS in relation to management of pending bills in county governments in Kenya.

Miheso (2013) explored the adoption of IFMIS by the National Government of Kenya. Miheso used probability sampling and purposive sampling to identity 54 individuals to participate in the study. Data was collected using questionnaire and, combined descriptive and inferential analysis approaches to analyze data. While Miheso identified logistic regression as a data analysis method, the results mirrored the linear multiple

regression approach. Among the key findings reported by Miheso (2013) was that IFMIS adoption was challenged by the fact that, release of funds by exchequer budget using the IFMIS platform did not coincide with the manual funds release. Mihesoôs study pointed out the delay in release of funds under the IFMIS platform which government departments have been experiencing. It was therefore prudent to explore the effect funds availability could have on management of pending bills in county governments in Kenya.

The office of the Auditor General (2016) presented an audit report on the effectiveness of IFMIS for the period 2010ï2014. Using a series of activities to address critical imperatives, the report highlighted inadequacy in key infrastructural requirements associated with funds availability. The report for instance pointed to inadequate network infrastructure, lack of end user equipment such as printers, computers, and scanners, and the cost of re-engineering IFMIS. Findings of the report definitely warranted more research on what funds availability could help to achieve in county governments in view of increasing pending bills.

Muiruri (2018) analyzed the effect of IFMIS on public funds management from a county government perspective. The motivation behind the study by Muiruri was that county governments have an important task of utilizing the public funds prudently when providing services. Using the descriptive research approach, a sample of 67 officers was constituted using probability and stratified sampling techniques. Data were analyzed using descriptive statistics such as frequencies, percentages, means and standard deviation. Among the key findings was that despite IFMIS improving various operations at county government level, there still exists uncertainty on its ability to oversee effective management of public funds. Findings from Muiruriôs study added crucial information to existing knowledge on IFMIS potentiality in county governments. However, it did not address the concerns surrounding pending bills among county governments in Kenya.

2.3.3 Transparency & Accountability and management of Bills

Wamuyu (2019) analyzed the effect of IFMIS on the management of public finance and service delivery in the context of government ministries. Motivated by the fact that Kenya as a developing country is constrained in terms of resources, Wamuyu sought to

examine the role IFMIS plays in that optimizing the scarce resources that was available. Using the descriptive research design and a sample of 54 officers, Wamuyu (2019) employed correlation analysis to determine among others that besides enhancing accountability, transparency and resource allocation, IFMIS has resulted in reduced pending bills. In reporting these findings, Wamuyu added to the discourse on the central role IFMIS plays transparency and accountability in public finance management. The use of correlation could however not guarantee causal relationship. There was therefore need to use an approach which could guarantee cause-effect relationship.

Ndambo (2019) in a newsletter points out that queries have emerged with regards to transparency and accountability in the Taita-Taveta county when it comes to awarding of tender and this has occasioned pending bills standing at over Kshs. 500 million. According to OECD (2012), transparency in the budgeting process brings out desired fiscal projections and macro-economic outlook. Moreover, it helps increase public trust. The fiduciary risk report (2018) in outlining audit issues on the management of public finance by county governments for the FY 2012/13ï 2015/16 raised concerns on transparency. It noted that collection of revenue was underreported. For instance, revenue was collected but it was not submitted to the revenue fund. Another transparency related issue raised was irregular payments. These studies provided the impetus needed to examine the direct effects of transparency and accountability on management of pending bills in county governments in Kenya in totality as opposed to a single county government.

2.3.4 Financial reporting systems and Management of Bills

Financial reporting systems as IFMIS controls also feature significantly in the discourse on bills management. Grant, Miller and Alali (2008) examined the role IT controls play in financial reporting. Using a sample of 278 companies that reported IT control deficiencies during the first three years of SOX 404 requirements, the study conducted a quantitative analysis. The study revealed that weak IT controls occasioned accounting issues such as revenue recognition; inventory, vendor and cost of sales, receivables, investments and cash issues among others. The findings arising from the study by Grant et al. (2008) contribute to existing literature on IFMIS potentiality particularly in

automating financial reporting. The context of their study was such that the findings needed to be confirmed from a public service perspective.

Although the extant literature lacks studies, relating financial reporting systems directly to management of pending bills. There is an abundance of studies, which show the impact of IFMIS on financial reporting and, by extension on management of bills. Swalehe & Ngôangôa (2019) for instance, analyzed the effects of IFMIS on financial performance in Kwale county government. Using descriptive research design and a sample size of 142 employees, Swaleh and Ngôangôa combined descriptive and inferential statistics to show that through IFMIS automated financial reporting was more efficient and had a hand in the financial performance of Kwale county government. Hendricks (2012) comprehensively argued for implementation of IFMIS noting that through it, organizations achieve higher levels of transparency in financial reporting. This eventually translates into increased operational credibility and public confidence.

2.4 Conceptual model

Conceptual models are used to refer to models which are formed usually after generalization process or conceptualization processes. It is usually a representation of a system which help to understand better the subject matter. Thus, a conceptual model has the primary objective of stating the fundamental principles and basic functionality of the system which it represents. Therefore, conceptual model represents conceptsô (entities) and relationships between the problem domain (John P. Mylopoulos).

Conceptual Model:

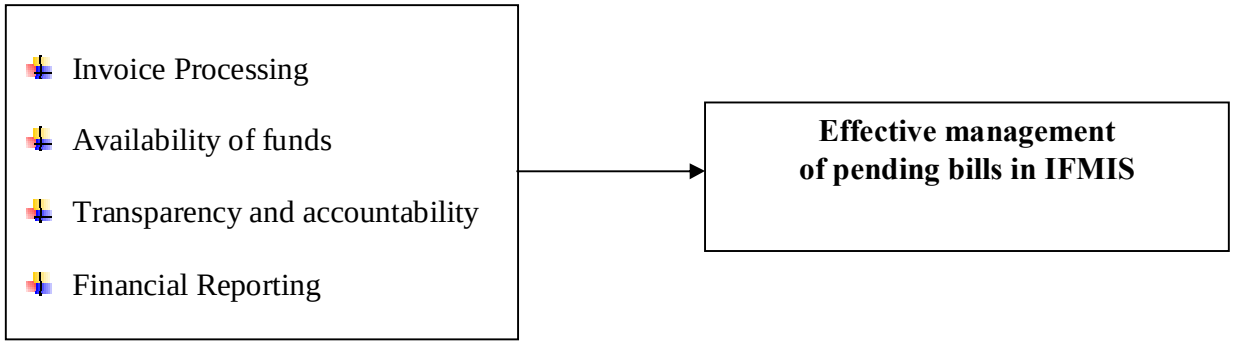

Figure 1: Source: Author, 2019

2.5 Summary of Literature Review and Knowledge gaps

Scholars	Study/Topic	Major Findings	Knowledge Gaps
Diamond & Khemani, (2005)	Introducing IFMIS in developing countries.	Successful introduction of FMIS needs to be accompanied by strong commitment, sufficient manpower and financial resources, widespread internal support, and an agenda for effective change management. Unless these are in place, the chances of success are limited.	The FMIS objectives and outputs relevance and it consistency with wider fiscal policy reforms.
Ilya Bezuglov (2018)	Optimization of invoice handling at accounts payable	Invoice handling in case company was never optimized with a plan based on accounting theory or leading accounts payable and invoice handling practices. This fact brings an opportunity for the case company to improve the internal accounting operations and create strong background for future development in this field.	Invoice handling optimization plan that will help the case company to overcome current challenges as well as improve internal operational accuracy and efficiency.
Scholars	**Study/Topic**	**Major Findings**	**Knowledge Gaps**
Henry Mobegi (2009)	Extent of implementation of IFMIS as a tool for sustainable	Resistance was one of the major challenges facing implementation of IFMIS	Sustainability of the project on Financial management

	Financial Management in Government		
ICPAK Report, 2018 (CPA Andrew Rori)	Integrated Financial Management Information System	IFMIS is an enabler to accountability, and transparency	Modules that are not Rolled out or are underutilized (Sourcing and Cash Management - Bank Recs, Cash flow Planning & Exchequer Requisition)
Dener, C. & Young, S. (2013)	Financial Management Information Systems and Open Budget Data: Do Governments Report on Where the Money Goes? Washington DC: World Bank Publications.	The study shows that only a small group of countries provide good access to reliable open budget data from underlying FMIS solutions. Many governments publish substantial information on their PF websites, but the contents are (not always) meaningful	Status of government practices on publishing budget data

Auditor General Report (2014)	Audit of effectiveness of IFMIS	The report Established that there was lack of proper application of IFMIS;	The Adoption / applicability levels affecting financial performance.
Scholars	**Study/Topic**	**Major Findings**	**Knowledge Gaps**
		System functionalities not enabled in the IFMIS system, lack of Integration of IFMIS with other Systems, Manual Preparation of Financial Statements,	
Thurakam (2007)	Management Accounting. New Delhi: New Age International.	In order to facilitate the functioning of the management, there should be quick preparation and prompt submission of the report to all those executives who depend on it	Automation of mechanical activities such as automatic generation of accounting vouchers triggered by each financial transaction and easy generation of accounting/Financial records.

CHAPTER THREE:
RESEARCH METHODOLOGY

3.1 Introduction

This Chapter presents the methodology used in the study, and reports on the research design, the target population of the study, sampling design adopted, data collection tools, instrument validation and test of reliability, data analysis approach, and ethical considerations.

3.2 Research Design

A research design has been defined as a road map, which offers researchers smooth framework of methods and techniques to use or apply course of a research study to enable a reasonable manner in solving a research problem (Kothari, 2004). The researcher adopted the descriptive survey research design, which sought to describe and interpret the status of IFMIS implementation and pending bills management in county governments in Kenya. Mertler (2014) contends that descriptive studies are suitable for describing and interpreting individualôs status, conditions, settings, or events. Moreover, Fraenkel, Wallen and Hyun (2012) argue that descriptive survey research focuses on the description of a population or groupôs characteristics. In essence, therefore, a questionnaire was used to gather opinions, experiences and other characteristics related to the study population. Choice of the questionnaire was based on the need to investigate the cause-effect relationship between IFMIS implementation and management of pending bills. Previous studies have shown that besides being used in a descriptive way, survey research has been employed to investigate existence of relationships between variables (McMillan, 2012).

3.3 Target Population

A target population is the total set of elements about which a researcher wishes to make some inferences; where population elements refer to the subject on whom the measurement is being taken (Cooper & Schindler, 2005). The study targeted county finance officers drawn from county governments in Kenya. Consequently, the target

population comprised of 47 county finance officers consistent with the 47 counties of Kenya. Choice of county finance officers was informed by the fact that they are mandated with the responsibility of ensuring that financial reporting standards are followed, and that pending payments are cleared. This put them squared at the core of the study requirements of examining pending bills in the context of IFMIS implementation.

3.4 Sample

The study employed a census survey in which all the 47 county finance officers were used in the study. According to Lavrakas (2008), a census is able to provide detailed information on the required characteristics of the population. Moreover, a census like a sample, allows use of a questionnaire to collect data, and requires screening and cleaning of data. The census approach was chosen since besides being small, the population was well defined, with complete sampling frame that was a listing of the 47 county finance officers.

3.5 Data Collection Procedures

The study relied on both the primary and secondary forms of data. Primary data was collected using a county finance officerôs questionnaire. The questionnaire (appendix II) was fully structured in order to facilitate ease of analysis. The questionnaire was designed to have six sections. The first section gathered information concerning respondentsô background characteristics. This information was necessary since knowledge of respondentsô background characteristics was deemed as a sure way of eliminating their possible influences on the hypothesized relationships.

The second section of the questionnaire for county finance officers focused on information regarding invoice processing. The information was deemed to give a pointer towards implementation of invoicing requirements under IFMIS within county governments in Kenya. The third section sought information regarding funds availability at the various stages of IFMIS implementation. Section four focused on collecting officers views on transparency & accountability exhibited within the counties when handling public finances. The fifth section, explored finance officers perceptions on use of financial reporting systems as specified within the IFMIS framework. The sixth

section represented a schedule listing all the counties, and in which secondary data pertaining to pending bills in the respective county governments for the period 2015-2018 were entered.

3.6 Validity and Reliability of the Instruments

Instruments used for data collection are required to obtain relevant information in the most reliable and valid manner. The accuracy and consistency with which they do this has been recognized as a significant aspect of research methodology, known as validity and reliability (Hamed, 2016). Validity and reliability of the instruments are viewed as critical phenomena in the measurement of variables. According to Neuman (2007), the nature of variables in social enquiry is such that besides not being directly observable, they may at times be ambiguous. This therefore makes validity and reliability to remain important notions in social science research.

3.6.1 Validity

Two forms of validity namely; face and content validity were used to validate the county finance officersô questionnaire. First, face validity, which, according to Neuman (2007) is the judgment, made based on scientific approach on whether the scale measures the required construct or not, was employed to validate design and structure of the questionnaire. The researcher sought the opinion and assistance of the assigned supervisor on whether the questionnaire was suitable both in design and in structure. Following suggestions for corrections, they were made forthwith (Haradhan, 2017; Zohren & Martin, 2017).

Next, content validity was examined. The researcher requested the supervisor to examine critically, the items measuring specific IFMIS practices to ascertain whether the full content pertaining to the given practices was captured in the items and whether such content was justified with evidence from literature. Various suggestions for correction were again made. These corrections were duly made and the final questionnaire was then produced (Haradhan, 2017; Zohren & Martin, 2017). Content validity was also examined using factor analysis with principal components for each of the measurement scales used.

3.6.2. Reliability

Reliability is defined as a measure of the dependability or consistency of the instrument in measuring the required variable (Neuman, 2007). The county finance officerôs questionnaire incorporated closed-ended questions to facilitate capturing and analysis of the variables of the study. The questionnaire was piloted on fifteen sub-county financial officers chosen at random. The Cronbachôs alpha reliability test for internal consistency was used to examine reliability of each of the four scales measuring IFMIS implementation. Reliability coefficients equal to or greater than 0.7 were interpreted to indicate reliable scales (Hair et al., 2010). Reliability was not tested for the depended variable since it involved secondary data that had already been documented. Results of the reliability analysis are presented in Table 3.1. Results show very high values for Cronbachôs alpha coefficients, confirming that, the scales were reliable in measuring the variables in question.

Table 3.1 Reliability Test Results

Variable	No. Items	Cronbach's Alpha
Invoice processing	9	0.911
Funds availability	6	0.890
Transparency & Accountability	5	0.942
Financial reporting systems	7	0.953

3.7 Data Analysis

Data were first coded, and entered into SPSS version 22 in preparation for analysis. Data were then screened and, cleaned for missing values, outliers, and content validity.

3.7.1 Assumptions of Multiple Regression

Prior to conducting the regression analysis, five assumptions required to be satisfied before running multiple regression analysis were tested. They included assumptions of independence of residuals, linearity, and homogeneity of variances, normality, and multicollinearity (Hair *et al.*, 2010).

3.7.2 Analytical Model formulation

In order to test the four hypotheses, one model was formulated in line with the conceptualized relationships. Hierarchical multiple regressions analysis was used to test the direct effects of the four IFMIS practices on management of pending bills, while controlling for the influence of the background characteristics. According to Tabachnick and Fidell (2013), hierarchical regression, also called sequential regression allows variables to be entered into the equation in an order specified by the researcher. Each variable entered is then assessed for what it adds to the equation. For purposes of the present study, background characteristics were first entered into model 1. Their contribution to the model was then noted after which the selected practices were entered in model 2. The change in R square was used to determine the contribution of the selected practices to the model. The multiple regressions model was therefore as follows:

$$Y = \beta_0 + \beta_1 C + \beta_2 X_1 + \beta_3 X_2 + \beta_4 X_3 + \beta_5 X_4 + \varepsilon$$

Where:

Y = Management of pending bills in County Governments in Kenya (Efficient and effective control of public financial resources);

β_0 = The regression constant or intercept

C = Control variables

X_1 = Invoice processing and budgeting (reliability, processing and approvals, timeliness)

X_2 = Funds Availability (validation, exchequer releases timeliness, budgeting)

X_3 = Transparency & Accountability (Quality and availability of information, price and quality tolerance, tracking of financial events)

X_4 = Financial reporting (Authenticity, accuracy, relevance promptness)

ε = The error term

β1, β2, β3, β4, and β_5 = slopes associated with C, X1, X2, X3, X4 respectively (regression coefficients)

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. This chapter presents analysis of the data on the effect of integrated financial management information system on the financial management of public sector in Kenya. The chapter also provides the major findings and results of the study.

4.2 Response Rate

The study examined implementation of IFMIS and management of pending bills of county governments of Kenya. Consequently, all the 47 counties were targeted. A total of 47 questionnaires were therefore designed and administered to 47 financial officers drawn from these counties. All the 47 officers returned their questionnaires dully filled leading to a response rate of 100%.

4.3 Data Validity and Reliability

4.3.1 Data Screening and Cleaning

Research has pointed out that there is need to examine univariate descriptive statistics in order to ascertain that continuous variables have values that fall within expected range; that; means and standard deviation are plausible, that missing values are addressed; and that cases with extreme values are not present (Tabachnick & Fidell, 2013). Data were therefore screened and cleaned for missing values.

4.3.2 Missing Data

Missing data is regarded as a critical issue in data analysis. According to Tabachnick and Fidell (2013), the pattern of missing values should not be ignored during data analysis. Baraldi and Enders (2010) identify three patterns through which data could be missing. Data may be missing completely at random (MCAR); missing at random and ignorable

(MAR) or missing not at random requiring not being ignored (MNAR). Missing data were therefore assessed using the MCAR approach. Variables with missing data in the excess of 5% required that the variables be deleted from further analysis (Baraldi & Enders, 2010).

An examination of the resulting univariate statistics (Table 4.1) revealed that no variable had missing values above 5%. Variables C5, D2, D3, E1, E2, E3, E3, E5 and F4 had one missing value each but percentage missing was way below 5%. The missing values were replaced using hot deck imputation, a technique that involves identifying recurrent trend of values within the specific variable and using it to replace the value missing (Myers, 2011).

Table 4.1

Univariate Statistics

				Missing		No. of Extremes[a]	
Variables	N	Mean	Std. Deviation	Count	Percent	Low	High
C1	47	2.60	1.228	0	.0	0	4
C2	47	2.51	1.140	0	.0	0	0
C3	47	2.40	1.210	0	.0	0	0
C4	47	3.09	1.332	0	.0	0	0
C5	46	2.98	1.390	1	2.1	0	0
C6	47	3.64	1.421	0	.0	0	0
C7	47	3.60	1.330	0	.0	0	0
C8	47	2.83	1.274	0	.0	0	0
C9	47	3.06	1.566	0	.0	0	0
D1	47	2.47	1.248	0	.0	0	0
D2	46	2.59	1.147	1	2.1	0	3
D3	46	2.59	1.222	1	2.1	0	0
D4	47	2.81	1.362	0	.0	0	0
D5	47	3.98	1.032	0	.0	4	0
D6	47	3.47	1.544	0	.0	0	0
E1	46	2.78	1.191	1	2.1	0	0
E2	46	2.91	1.112	1	2.1	0	0
E3	46	3.17	1.288	1	2.1	0	0
E4	46	3.39	1.308	1	2.1	0	0
E5	46	3.41	1.484	1	2.1	0	0
F1	47	2.74	1.293	0	.0	0	0

F2	47	2.85	1.233	0	.0	0	0
F3	47	3.13	1.361	0	.0	0	0
F4	46	3.46	1.486	1	2.1	0	0
F5	47	3.30	1.473	0	.0	0	0
F6	47	3.51	1.397	0	.0	0	0
F7	47	3.68	1.461	0	.0	0	0

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

4.4 Descriptive Analysis of Respondents General Information

Respondentsô general information was analyzed in terms of gender, age, level of education and experience working in respective departments. Previous studies have demonstrated that gender, age, education and experience impacts on work performance, participation in programs and work engagement (Baloshi, 2018; Chaudhary & Rangnekar, 2017; Shaffril & Uli, 2010).

The study therefore examined the distribution of these demographic factors among the study respondents ostensibly, to control for their potential influences on the conceptualized direct relationships involving the main study variables. The analysis of the general information (Table 4.7) revealed the following: a majority of the financial officers were male (71.1%). A large proportion of them (93.3%) were aged above 25 years; with 37.8% being in the 26-35 years bracket, 28.9% in the 46-55 years bracket, and 24.4% in the 37-45 years bracket. Education-wise, most of the respondents (52.3%) were first degree holders, while 27.3% were of diploma level. The job experience distribution revealed that most of the respondents (53.3%) had served in their respective departments for between 4 to 10 years; with 28.9% having served for between 4-6 years and 24.4% having served for between 24.4%.

Table 4.7

Background Characteristic	Category	n	%
Gender	Male	32	71.1%
	Female	13	28.9%
Age Bracket	18-25years	3	6.7%
	26-35years	17	37.8%
	37-45years	11	24.4%

	46-55years	13	28.9%
	Over 56 years	1	2.2%
Academic Qualifications	PhD level	1	2.3%
	Masters Level	8	18.2%
	First Degree level	23	52.3%
	Diploma Level	12	27.3%
Experience	1-2years	7	15.6%
	2-4 years	7	15.6%
	4-6years	13	28.9%
	6-10years	11	24.4%
	10-15years	3	6.7%
	Above 15 years	4	8.9%

The implication of these demographic statistics was that there were significant variations among the respondents in terms of gender, age, level of education and experience. This justified the need to control for the potential influences of these characteristics on the hypothesized relationships.

4.5 Descriptive Statistics for Independent Variables

Study variables were explored with the aim of establishing their implementation and use in county governments in Kenya. Descriptive statistics generated for the four independent variables were: minimum response scores, maximum scores, means, standard deviations and skewness. The mean response scores were used to capture the typical responses among respondents, while standard deviations were an indicator of variations in response scores among respondents. Consequently, small values for the standard deviations were an indicator of consistency among respondents. Skewness statistics were used show whether data distribution for a particular variable followed the required normal distribution (Gravetter & Wallnau, 2017).

4.5.1 Descriptive Statistics for Invoice Processing

Implementation and use of invoice processing as experienced in county governments in Kenya was explored using nine items that reflected expectation of IFMIS for invoicing. Respondents were asked to indicate their levels of agreement to the various invoice processing practices as applied in their offices. Responses were elicited on a 5-point likert scale. Data captured were transformed from categorical to continuous by taking averages

of the response scores for each respondent on the nine items in the scale. Overall response scores were computed using geometric means.

Results of the descriptive statistics for invoice processing (Table 4.8) revealed that the distribution of the gathered data was normal as determined by the skewness values within the accepted range of ±3.0 (Hair et al., 2014). Response scores ranged between 1 and 5 in all items. The overall mean response score was 2.93 with a standard deviation of 1.3. The implication of this mean response and associated standard deviation is that respondents were largely neutral with regards to whether the given invoice processing practices were being applied.

Although they showed some agreement that county governments had digitized invoice lead time mechanisms (M=3.67, SD=1.43), and that they had put in place automated tolerance configuration to eliminate variances in prices and quantities (M=3.64, SD=1.334), they disagreed that validation and checking of invoices against data files (M=2.47, SD=1.1) and matching and checking invoices with original orders (M=2.36, SD=1.171) were being done effectively.

Table 4.8 Descriptive Statistics for Invoice Processing

	Min	Max	Mean	Std. Dev.	Skewness
1. The county has a digitalized invoice lead time mechanisms	1	5	3.67	1.430	-.596
2. There is an Automated Invoice Tolerances configuration which allows for elimination of variance in terms of Prices and /Quantity	1	5	3.64	1.334	-.505
3. There is availability of a secure, organized and searchable invoice archive and audit trail	1	5	3.09	1.345	.183
4. The County has in place an Invoice approval workflow in the IFMIS system	1	5	3.04	1.566	-.040
5. The County ensures Prompt invoices processing, keeping track of due dates and status changes, and having control over cash flow management	1	5	2.98	1.406	.195
6. The Suppliers balances are reflected as you create a purchase order in the IFMIS	1	5	2.82	1.230	.125

7. The County Automatically extracts key information of invoices for import into IFMIS	1	5	2.58	1.177	.286
8. There is Validation of invoices and checking of invoice data against data files	1	5	2.47	1.100	.035
9. The Purchase Orders are Matched and checked against the Invoices to make sure the invoice matches the original order	1	5	2.36	1.171	.588
10. Overall response score			**2.93**	**1.300**	

The implication of the descriptive results on invoice processing in county governments in Kenya is that implementation of IFMIS practices governing invoicing is not effective. While efforts have been put in place to have required digitization of invoice procedures; it emerges from the findings that adherence to due procedures is not being followed effectively. These findings are consistent with the IFMIS effectiveness audit report for the period 2010 to 2014 (Office of the Auditor-General, 2016). The report points out that as at 2014, the IFMIS adoption index stood at 22.14% among entities and that the index for counties was 6.08%.

Lack of effective implementation of invoice processing among county governments as portrayed by the exploration of invoice processing in these entities can have a major impact on their fiscal deficits. According to Verma (2019), in an endeavor to clear high fiscal deficits, the kingdom of Eswathi, formerly Swaziland turned to IFMIS which had the capability to among others; record invoices and payments instructions along with accounting classification and vendor details; create batches of invoices; submit these batches of invoices; submit these batches online to treasury; scrutinize and verify the invoices, and record invoices marked as paid. County governments stand to enjoy such benefits from effective invoice processing.

4.5.2 Descriptive Statistics for Availability of Funds

Availability of funds for IFMIS implementation in county governments in Kenya was explored using six items. Respondents were asked to state their levels of agreement to statement that inquired whether funds were made available at the various stages of IFMIS implementation. Responses were once again elicited on a 5-point scale and data

transformed into continuous form. Results of the descriptive exploration (Table 4.9) demonstrated that data were normally distributed as determined by the skewness statistics. Responses among respondents ranged between 1 and 5 in all items; respondents tended to remain neutral on most items although not consistently (M=2.92, SD= 1.23). They however agreed that the National Treasury releases exchequer payments on time (M=4.00, SD=1.044) and that, county end year transactions are done efficiently and timely (M=3.51, SD=1.56).There were high variations in the response as determined by the standard deviations indicating that respondents did not consistently agree on these items. Respondents disagreed that funds were readily available at the purchase requisition stage (M=2.42, SD=1.22).

Table 4.9 Descriptive Statistics for the Funds Availability Variable

Items	Min	Max	Mean	Std. Dev	Skewness
1. The National treasury releases exchequer payments on time	1	5	4.00	1.044	-1.252
2. County end year transactions are done efficiently and timely	1	5	3.51	1.561	-.584
3. Payment stage	1	5	2.78	1.347	.075
4. Invoice Validation Stage	1	5	2.58	1.196	.224
5. Local Purchase Order/ Local Service Order Stage	1	5	2.53	1.100	.395
6. Purchase Requisition Stage	1	5	2.42	1.215	.468
Overall Response Score			**2.92**	**1.23**	

The implication of the descriptive statistics resulting from the analysis of data gathered for availability of funds is that, funds are not made readily available at most of the critical stages of county government operations. Availability of funds could therefore rank among the factors inhibiting effective implementation of IFMIS in county governments as determined by this exploration. Previous studies have documented challenges to IFMIS that arise due to release of funds from the exchequer budget (Miheso, 2013). According to Miheso the budget supply function operates outside of IFMIS yet, exchequer releases and grant of credit can be done online.

The challenge of availability of funds may perhaps not be a preserve of county governments alone. ICPAK (2017) conducted an IPSAS workshop geared towards highlighting benefits, challenges and the future for IFMIS in Kenya and identified the notion of centralized treasury operation as one of the challenges faced in implementation of IFMIS. Under this notion financial resources with governments ought to be consolidated in a single treasury account or accounts that have been interlinked.

4.5.3 Descriptive Statistics for Transparency and Accountability

Descriptive exploration of observance of transparency and accountability in county governments was conducted using five questionnaire items. Respondents were asked to indicate their level of agreement with regards to transparency and accountability practices put in place in their respective county governments. The overall response score (M = 3.12, SD =1.26) indicated a neutral position among respondents with regards to whether or not transparency and accountability are observed in county governments. For instance, respondents were neutral on whether or not the public expenditure programme is done efficiently and effectively (M=3.44, SD=1.307); whether putting in place an automated financial system had improved control over expenditure (M=3.40, SD=1.468); whether or not financial disclosures that give a picture of financial activity are regularly made (M=3.18, SD=1.284) among others (Table 4.10).

Table 4.10 Descriptive Statistics for the Transparency and Accountability Variable

	Min	Max	Mean	Std. Dev	Skewness
1. The public expenditure Programme is done in an efficient and effective way	1	5	3.44	1.307	-.321
2. County Government has put in place an automated financial system that has improved control over expenditure.	1	5	3.40	1.468	-.291
3. Financial disclosures are made regularly to provide a picture of financial activity to the public	1	5	3.18	1.284	-.078
4. Deployment and use of public resources is done accountably	1	5	2.89	1.071	-.119

5. There is an efficient system of recording and processing of County financial transactions thus allowing prompt and efficient access to reliable financial data	1	5	2.80	1.198	.239
Overall response score			**3.13**	**1.26**	

The neutral stance taken by respondents with regards to transparency and accountability did not give much indication of levels of observance of the practices. However, it was a pointer to laxity among the officers in keeping track of these vital practices.

Inability to ensure transparency and accountability in counties could be very costly in the implementation of IFMIS. Transparency and accountability have been recognized as critical cogs in among others; public financial management (Dandago, 2018) and in public budget process (Lulay, 2019).

4.5.4 Descriptive Statistics for Financial Reporting Systems

Financial reporting systems as experienced in county governments were explored using seven items focusing on the reporting potential under IFMIS. Descriptive statistics (Table 4.11) depicted a normally distributed data as determined by the skewness statistics that were within the expected range of ± 3. The overall mean response score with the associated standard deviation (M=3.21, SD=1.39) revealed that, just that like in the case of the other variables, respondents kept a largely neutral stance on financial reporting systems in the respective county governments. Although they agreed that financial information which enhances decision making is offered real-time (M=3.71, SD=1.471), they remained neutral on the other items.

Table 4.11 Descriptive Statistics for Financial Reporting Systems

Items	Min	Max	Mean	Std. Dev	Skewness
1. Financial information which enhances decision making is offered real-time	1	5	3.71	1.471	-.682
2. Custom reports for internal and external use are easily generated	1	5	3.51	1.392	-.368
3. Transactions data is reconciled in real-time.	1	5	3.40	1.514	-.273

4. The County governmentsô financial position is accurately disclosed to the public	1	5	3.31	1.490	-.219
5. Built-in analytical tools allows the running of trend analysis of various elements of fiscal operations	1	5	3.11	1.352	-.095
6. Easy access to IFMIS allows derivation of specific financial information	1	5	2.84	1.242	.085
7. Financial data is easily extracted and presented from IFMIS in ways that facilitate its analysis	1	5	2.71	1.272	.298
Overall response score			**3.21**	**1.39**	

Once again the neutral stance maintained by respondents reporting financial reporting systems in county governments does not give a clear picture on the current position of financial reporting experienced in county government. However, it does appear that implementation of IFMIS in terms of financial reporting may like in the other variables not be effectively done.

The importance of financial reporting in financial performance of organizations has been underscored in existing studies (Rupanagunta, 2006; Thurakam, 2007). Besides, the public finance management Act 2012 emphasizes the importance of standard financial reporting.

4.6 Descriptive Statistics for the Dependent Variable

Management of pending bills was conceptualized as the dependent variable in this study. Descriptive analysis of the level of pending bills focused on two aspects. First, descriptive statistics that included means, median, maximum & maximum values, standard deviation, Jarqueï Bera and its probabilities were generated and interpreted. Secondly, being a time series data covering four years, a trend analysis was conducted to examine the behavior and trend of pending bills in counties over that period.

4.6.1 Descriptive Statistics for Pending Bills

Descriptive Statistics for pending bills were computed and gave results reported in Table 4.12. From the results, the mean of pending bills increased from Kshs. 641 million in the year 2015 to Kshs. 1.05 billions in the year 2018. Pending bills across the four years were

highly dispersed as determined from the standard deviations. The highest dispersion was Kshs. 739 million reported in 2018. All the pending bills had a positive skew. The Jarque-Bera statistics for the years 2015, 2016 and 2017 were significant as determined by the probabilities confirming that the distribution of pending bills in those three years was not a normal distribution. However, the distribution of pending bills in 2018 depicted a normal distribution as determined by the non-significant Jarque-Bera statistic.

Table 4.12 Descriptive Statistics for Pending Bills

	YR2015	YR2016	YR2017	YR2018
Mean	6.42E+08	8.25E+08	9.28E+08	1.05E+09
Median	4.04E+08	7.35E+08	7.12E+08	8.94E+08
Maximum	2.80E+09	3.02E+09	2.85E+09	3.17E+09
Minimum	70023300	89241581	45915833	17081217
Std. Dev.	6.86E+08	6.36E+08	6.47E+08	7.39E+08
Skewness	1.938356	1.298647	1.115284	0.861440
Kurtosis	5.738474	4.840869	3.881939	3.284891
Jarque-Bera	42.24024	19.00263	10.78734	5.717777
Probability	0.000000	0.000075	0.004545	0.057332

The implication from the descriptive statistics for pending bills is that, county governments in Kenya are accumulating pending bills which keep on rising annually. This brings into question the capability of county governments to manage their fiscal deficits. Pending bills are indeed emerging as a major challenge to counties in Kenya. The Nairobi County Fiscal strategy Paper (CFSP) for 2019ï 20, though still a draft for instance, identifies shortfall in local revenue and colossal pending bills as among the main challenges that the Nairobi county government has to contend with (Kinyanjui, 2019).

The descriptive statistics that show an increase in average pending bills from Kshs. 642 million in 2015 to Kshs. 1.05 billion in 2018 is consistent with concerns presented by the office of the controller of Budget during the induction of Governors and deputy Governors (2017). In the presentation, the office of the controller of budget raises concerns with the level at which counties have been accumulating pending bills, noting that as at FY 2016/2017, pending bills stood at Kshs. 35.85billion.

4.7 Existing Trend in Pending Bills across Counties

Analysis of the existing trend in pending bills in county governments across the four years involved 180 individual pending bills taken from the 45 cases (2 cases had univariate outlier and were deleted) over the four years. Results (Fig 4.6) indicated that there were several peaks and troughs in the raw pending bills across counties over the period. However, the fitted trend line confirmed that there was an increasing trend in pending bills in counties.

The trend equation was estimated to be: $Y_t = 651545211 + 2323575t$.

Where Y_t represents pending bills and t represents time in years. The implication of this equation is that pending bills increased by a figure of approximately 2.32 million annually.

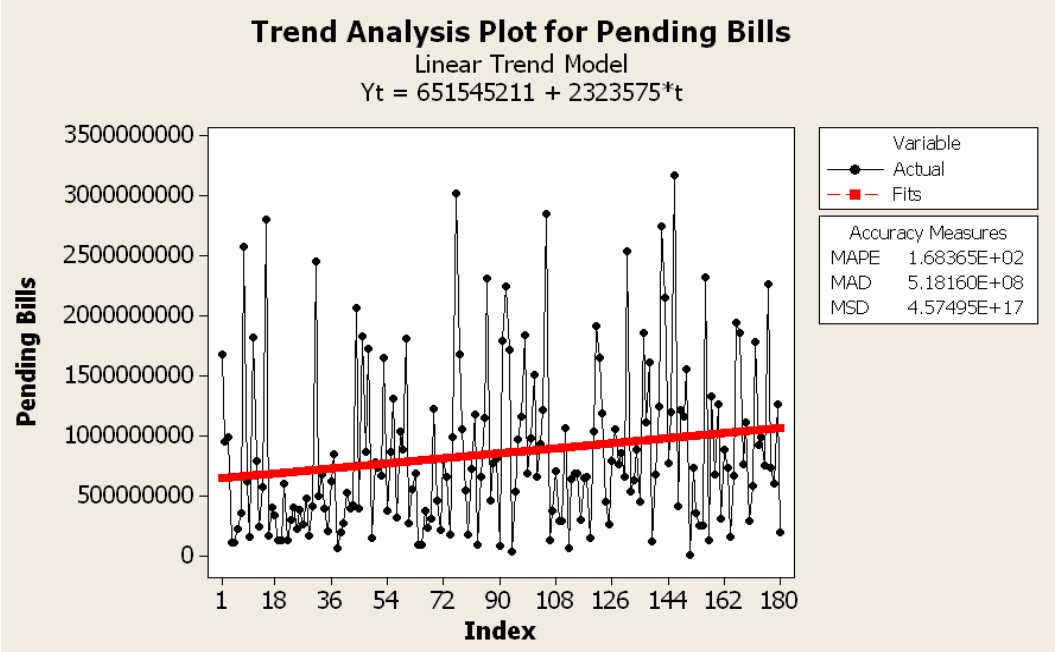

Fig. 4.6 Pending bills over the four year period

The trend analysis result corroborates the descriptive statistics and goes on to confirm that county governments in Kenya are grappling with the challenge of pending bills which continue to increase alarmingly. The estimated trend equation shows a positive slope which is an indicator that the situation with pending bills in county governments can only continue getting worse in the coming years.

4.8 Bivariate Correlations

Pearsonôs Product Moment Correlation was used to examine existence of bivariate associations between the four IFMIS practices and management of pending bills, a requirement for regression analysis. Results (Table 4.14) show that independent variables had positive correlations with the dependent variable, and that they were not correlated highly with each other. In particular, there were positive and significant correlations between invoice processing and pending bills ($r=0.708$, $p<0.05$); funds availability and pending bills ($r=0.389$, $p<0.05$) and between financial reporting systems and pending bills ($r=0.278$, $p<0.05$).

Table 4.14 Bivariate Correlations

	Invoice processing	Funds Availability	Transparency and accountability	Financial reporting systems	Pending bills
Invoice processing	1	.599**	.623**	.461**	.708**
Funds Availability	.599**	1	.528**	.540**	.389**
Transparency and accountability	.623**	.528**	1	.508**	.469**
Financial reporting systems	.461**	.540**	.508**	1	.278**
Pending bills	.708**	.389**	.469**	.278**	1

**. Correlation is significant at the 0.01 level (2-tailed).

4.8.1 Hierarchical Multiple Regression Analysis

For purposes of controlling for the background characteristics, the hierarchical multiple regression analysis was run as opposed to the standard multiple regression analysis. Four hypotheses were tested in relation to IFMIS implementation and pending bills management.

4.8.2 Model Fit

The fit of the direct effects model involving implementation of IFMIS and management of pending bills was tested from two perspectives. First, the variation in pending bills

explained by variation in IFMIS practices was assessed. Next, the researcher checked whether manipulation of the four IFMIS practices could predict management of pending bills.

Results of the variance explained (Table 4.15) revealed that the four practices of IFMIS implementation, together with the background characteristics explained 92.9% of the variance in management of pending bills (R-square = 0.929) and exhibited a large size effect as determined by the adjusted R^2 value of 91.2% (as cited in Kelley & Preacher, 2012). However, after controlling for the effects of the control variables (background characteristics), the four practices explained 69.8% of the variance in management of pending bills $cpR^2 = 0.698$, $cpF = 85.7$, $p<0.05$.

Table 4.15 Model Summary for Regression Analysis

				Std.	Change Statistics					
				Error of	R					
		R	Adjusted	the	Square	F			Sig. F	Durbin-
Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change	Watson
1	.481	.231	.152	.47024	.231	2.930	4	39	.033	
2	.964	.929	.912	.15110	.698	85.687	4	35	.000	2.344

1.Predictors: (Constant), Experience, Gender, Education level, Age
2.Predictors: (Constant), Experience, Gender, Education level, Age, Funds Availability, Transparency & Accountability, Financial Reporting Systems, Invoice Processing
Dependent Variable: Log 10 (Pending Bills)

Manipulation of the four dimensions statistically and significantly predicted management of pending bills, $F(8, 35) = 57.035$, $p<0.05$) (Table, 4.16).

Table 4.16 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.592	4	.648	2.930	.033
	Residual	8.624	39	.221		
	Total	11.216	43			
2	Regression	10.417	8	1.302	57.035	.000
	Residual	.799	35	.023		
	Total	11.216	43			

Dependent Variable: Log 10 (Pending Bills)

1. Predictors: (Constant), Experience, Gender, Education level, Age
2. Predictors: (Constant), Experience, Gender, Education level, Age, Funds Availability, Transparency & Accountability, Financial Reporting Systems, Invoice Processing

The resulting regression coefficient as presented in Table 4.17 revealed that among the control variables, age (ɓ = 0.175, p<0.05) contributed significantly to the overall effects. All the four practices: invoice processing (ɓ = 0.447, p< 0.05); funds availability (ɓ = 0.376, p<0.05); transparency and accountability (ɓ = 0.267, p< 0.05), and financial reporting systems (ɓ = 0.357, p<0.05) were positive and significant predictors of management of pending bills.

Table 4.17 Direct Effects

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
2 (Constant)	7.579	.158		47.997	.000
Gender	-.037	.052	-.034	-.716	.479
Age	.088	.036	.175	2.437	.020
Education level	-.062	.032	-.091	-1.935	.061
Experience	-.033	.025	-.093	-1.302	.201
Invoice processing	.207	.070	.447	2.968	.005
Funds availability	.202	.076	.376	2.645	.012
Transparency & Accountability	.119	.050	.267	-2.370	.023
Financial reporting systems	.150	.059	.357	2.556	.015

Dependent Variable: Log 10 (Pending Bills)

The implication of these findings is that the four practices are critical facets of IFMIS implementation, which if adhered with have the potential to impact positively on the management of pending bills in county governments in Kenya. Evidence shows that through these practices, IFMIS has been able to improve accounting, recording and reporting through timely, accurate financial data provision. This has essentially occasioned a reduction in pending bills (ICPAK, 2017). The analytical model for the

direct effects of IFMIS implementation on management of pending bills in county governments was therefore conceptualized as

MPB = 7.579 + 0.447 IP +0.376 FA + 0.267 TA + 0.357 FRS + Ɛ

Where;
MPB = Management of Pending Bills
IP = Invoice Processing
FA = Funds Availability
TA = Transparency and Accountability
FRS = Financial Reporting Systems
ǎ = Prediction residuals

4.9 Research findings on Hypothesis Testing

4.9.1 Effect of Invoice Processing on Management of Pending Bills

Hypothesis $H_0$1 presupposed that invoice processing had no significant effect on management of pending bills. The study revealed that invoice processing was a positive and significant predictor of management of pending bills in county governments in Kenya, ɓ = 0.447, p< 0.05. This implies that a unit increase in standard deviations of invoice processing would lead to 0.447 standard deviations increase in management of pending bills. The hypothesis stating that invoice processing had no significant effect on management of pending bills was not supported.

4.9.2 Effect of Funds Availability on Management of Pending Bills

Hypothesis $H_0$2 stated that funds availability had no significant effect on management of pending bills in county governments in Kenya. Multiple regression results confirmed that funds availability had a positive and significant effect on management of pending bills ɓ = 0.376, p<0.05. An increase of 1 standard deviation in funds availability was therefore likely to result in an increase of 0.376 standard deviations in management of pending bills. The hypothesis was not supported.

4.9.3 Effect of transparency and Accountability on Management of Pending Bills

Hypothesis $H_0$3 stated that transparency and accountability had no significant effect on management of pending bills in county governments in Kenya. The study established that transparency and accountability had a positive and significant effect on management of pending bills, ɓ = 0.267, $p<0.05$. This implies that a 1 standard deviation increase in transparency and accountability can improve management of pending bills by 0.267 standard deviations. The hypothesis was also not supported.

4.9.4 Effect on Financial Reporting Systems on Management of Pending Funds

Hypothesis $H_0$4 stated that financial reporting systems had no significant effect on management of pending bills in county governments in Kenya. Results of the analysis revealed that financial reporting systems were indeed positive and significant predictors of management of pending bills, ɓ = 0.357, $p<0.05$. A unit increase in standard deviations for financial reporting systems could lead to a 0.357 standard deviations increase in management of pending bills. The hypothesis that financial reporting systems had no significant effect on management of pending bills was not supported.

CHAPTER FIVE
SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights a summary of the study findings, and discusses the findings in line with existing empirical literature, draws conclusions from the findings and makes recommendations for practice and for future research.

5.2 Summary of Findings

The main finding of this study was that IFMIS through the four practices identifies has a positive and significant effect on management of pending bills. Variation in IFMIS practices explained a variance of 69.8% in management of pending bills having controlled for background characteristics. The study therefore advanced the following model as a prediction of management of pending bills when the identified IFMIS practices are applied.

MPB = 7.579 + 0.447 IP +0.376 FA + 0.267 TA + 0.357 FRS + Ɛ

The summary and discussion of findings in relation to the specific objectives is as presented in the following sub-sections.

5.2.1 Invoice processing and management of pending Bills

The first objective of the study sought to analyze effectiveness of invoice processing as an IFMIS practice on the management of pending bills in county governments in Kenya. The descriptive analysis results revealed that county governments have put in place required digitization of invoice procedures. However, laxity in adherence to due invoicing procedures was noted. The hierarchical regression confirmed that invoice processing positively and significantly affects management of pending bills in county governments in Kenya.

The descriptive findings showing laxity in conforming to invoice processing in county governments in Kenya were consistent with existing evidence to the effect that adoption of IFMIS in counties stands at an index of 6.08% (office of the Auditorï General, 2016). This finding regarding laxity in invoice processing procedures does not auger well for these counties in their efforts to address the challenge of pending bills. The inferential statistics confirmed that invoice processing positively and significantly impacts on management of pending bills. Such laxity in complying with due invoicing procedures could be associated with escalation of pending bills in these governments.

The inferential findings showing that invoice processing has a positive and significant effect on the management of pending bills reflects several studies which have reported similar findings. Anwar (2011) for instance reported findings showing that automated system to invoicing was more effective that the manual approach. Pessi (2017) on the other hand pointed out that electronic purchase invoice system facilitated elimination of duplication, reduced reporting timelines, and improves the entire process. Billentis (2017) established that automation and e-invoicing were critical in addressing market challenges; and Bezuglov (2018) argued for optimization of handling of incoming invoices as a sure way of improving operational efficiency and accuracy.

County governments can therefore build on such findings to exploit the IFMIS requirements governing invoice processing to expedite their handling of invoices and, perhaps alleviate the challenge of pending bills. Indeed the concern about amount of projected invoices globally requires that efforts are put in place to find mechanisms through which the invoice process can be improved. Billentis (2019) agrees that in the event of a projection that the global market is set to encompass 550 billion invoices annually by the year 2035, digital transformation is no longer an option but the imperative.

5.2.2 Funds Availability and Management of Pending Bills

The second objective of the study focused on examining the effect of funds availability as an IFMIS practice on management of pending bills in county governments in Kenya. Through a descriptive analysis of questionnaire responses, the study revealed that funds

are not made readily available at most of the critical stages of county government operations, thereby inhibiting effectiveness of IFMIS functionalities. Hierarchical regression analysis results indicated that funds availability positively and significantly influences management of pending bills in county governments in Kenya.

The descriptive analysis results which indicated that funds are not made readily available at most of the critical stages of county government operations are consistent with Audit issues on the PFM by County Governments FY 2013/14-2015/16 (Fiduciary risk report, 2018). Among the issues highlighted by the report includes; unbudgeted expenditure which perhaps eats into funds that may have been set aside for implantation of IFMIS; expenditures incurred without following the due procedures put in place and which result in irregular payments; and excessive wage bill.

It is important to mention that county governments by not availing funds for effective implementation of IFMIS could be contributing to the escalating pending bills. The regression analysis results clearly indicated that funds availability positively and significantly impacts on management of pending bills in county governments in Kenya. The essence therefore is that if county governments avail funds, then the challenge of pending bills could be a thing of the past. In fact, the findings of this study support others which have highlighted the importance of funds availability in IFMIS implementation. Sigei (2013) established that appropriate infrastructure, capacity building and availability of experts were among the critical success factors to implementation of IFMIS. Although not directly mentioning funds availability, Sigei alludes to it in talking about infrastructure, outsourcing of experts and capacity building. The direct influence of funds availability on management of pending bills is also implied in audit report on the effectiveness of IFMIS for the period 2010ï 2014 (Office of the Auditor-General, 2016). According to this report, inadequate network infrastructure, lack of end user equipment such as printers, computers, and scanners, and the cost of re-engineering IFMIS were the main factors threatening adoption of IFMIS in county governments in Kenya. Other studies have also reported direct effects between availability of funds and IFMIS implementation and by proxy, management of pending bills (Cherotich & Okibo, 2016; Faduma, 2018).

5.2.3 Transparency & Accountability and Management of Pending Bills

The third specific objective explored the effect of transparency & accountability on the management of pending bills in county governments in Kenya. Results of the descriptive analysis of questionnaire responses revealed that compliance with transparency and accountability requirements was questionable in among county governments in Kenya. The regression analysis revealed that transparency and accountability were positive and significant predictors of management of pending bills.

The finding that county governments donâ comply with transparency and accountability requirements is worrisome, and perhaps explains the large amounts in pending bills being experienced in those county governments. Indeed, issues surrounding transparency and accountability in county governments featured strongly in the Fiduciary risk report (2018) on Audit issues on the PFM by County Governments FY 2013/14-2015/16. The Auditor General has raised transparency and accountability issues with regards to lack of expenditure controls in terms of unbudgeted expenditure and unsupported expenditure; under expenditure on annual budgets; unaccounted expenses; under reporting of revenue collected; expenditures incurred without following the due procedures put in place; non deduction of withholding Tax and other tax obligations; irregular procurement of services; un-procedural engagement and payment of casuals; double payment of devolved staff; and payment of salaries outside Integrated Personnel Payroll Data (IPPD) among others. The finding that county governments in Kenya do not comply with transparency and accountability requirements also resonates with the report by Ndambo (2019) which indicated that the Taita-Taveta county government has pending bills that stand at Ksh 500 million due to questionable awards of tenders. The regression analysis results showing that transparency and accountability were positive and significant determinants of management of pending bills support the findings by Wamuyu (2019) showing that IFMIS enhances resource allocation, transparency and accountability and therefore by extension, management of pending bills. The finding is also consistent with the OECD (2012) report which indicated that transparency in the budgeting process brings out desired fiscal projections and macro-economic outlook.

5.2.4 Financial Reporting Systems and Management of Pending Bills

The fourth specific objective of this study sought to analyze the effect of financial reporting systems on the management of pending bills in the county governments in Kenya. The descriptive analysis results indicated that financial reporting systems are not effectively being pursued in county governments. This is despite the hierarchical regression results confirming that financial reporting systems positively and significantly predict management of pending bills in county governments in Kenya.

The findings showing that laxity among county governments in pursuing financial reporting systems go against findings which have shown the utility of financial reporting in financial performance of organizations (Rupanagunta, 2006; Thurakam, 2007). Besides, they also contravene the public finance management Act 2012 which emphasizes the importance of standard financial reporting. The regression analysis result indicating that financial reporting systems affect management of pending bills is consistent with findings by Grant et al. (2008) that weak IT controls such as laxity in financial reporting occasions accounting issues. Moreover, financial reporting functionality brought about by IFMIS has been recognized as an avenue for efficiency and effectiveness. The finding that financial reporting systems predict management of bills therefore reflects findings by Swalehe and Ngôangôa (2019) which indicated that through IFMIS, automated financial reporting in Kwale County was more efficient and resulted in increased financial performance. In concurring with these findings, Hendricks (2012) also noted that IFMIS had boosted transparency and financial reporting in organizations which eventually increased operational credibility and public confidence.

5.3 Conclusions

In view of the findings summarized and discussed in the foregoing sections, the following conclusions were made.

i. Automating invoice processing as required under the IFMIS platform is a vital tool in handling the clogging up of invoices in county governments, and could have direct benefits on addressing the challenge of pending bills. It is regrettable

however, that county governments have maintained laxity in invoice processing despite the many audit reports made the Auditor-Generalôs office.

ii. County governments hardly set aside adequate funds to oversee the implementation of IFMIS despite the potential direct effect that funds availability could have on their management of pending bills. Audit queries have underscored various avenues through which funds are lost but county governments still face the challenge of pending bills.

iii. Transparency and accountability are key facets in IFMIS and have the potential to affect management of pending bills in a positive and significant manner. County governments are however still lax in enhancing transparency and accountability in their financial operations. Several issues relating to non-compliance have been identified but are not being adhered to.

iv. Automated financial reporting achieved through implementation of IFMIS has potential to impact positively and significantly on management of pending bills in county governments in Kenya but are not complied with as expected. This is perhaps one element that is contributing to escalation of pending bills in the county governments.

5.4 Recommendations of the Study

Following the conclusions drawn above, the following recommendations were made:

1. County governments should maximize the benefits that accrue from implementation of IFMIS by adhering to the required automation of invoice processing in order to handle many invoices at ago and manage the ballooning pending bills.
2. There is need for county governments to set aside funds that can be used for implementation of IFMIS. Consequently, county governments should look to address audit issues identified in the fiduciary risk report (2018), and seek to optimize usage of public funds.
3. Since transparency and accountability have positive and significant effects on management of pending bills, it is important for county governments to build the

public confidence by avoiding transparency and accounting issues highlighted in the fiduciary risk report (2018) prepared the senate committee.

4. County governments should take advantage of the positive and significant effect that automated financial reporting advocated by IFMIS has on management of pending bills to sensitize staff on its effective implementation and also referring them to highlighted audit queries

5.5 Limitations of the study

The method of data collection was both secondary and primary. The collection of primary data involved personal administration of questionnaire that was done through e-mail, phone calls. Both the methods for collecting data required adequate time which not available. Some of the respondents were reluctant to give answers to the questions in the questionnaires thinking that they were being investigated and in addition the researcher required funds for transport, stationery, typing and printing among other costs.

5.6 Suggestions for Future Studies

1. The issue of pending bills is a thorny one for county governments in Kenya and requires a more elaborate research. Future studies should therefore look approach the issue by triangulating quantitative and qualitative approaches in adopting mixed methods designs.

2. Future studies should seek to identify factors other than IFMIS implementation that may lead to escalation of pending bills. Consequently, studies should look at the indirect effects of moderation or mediation of leadership styles that county executives adopt.

3. Use of questionnaire as the only data collection tool was limiting to generalization of findings. Future studies should triangulate data collection by possibly introducing other tools such as observation and document analysis which could improve the validity of the findings.

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APPENDIXES

Appendix I: List of County Governments of Kenya

Code	County	Area (km^2)	Capital
1	Mombasa	212.5	Mombasa
2	Kwale	8,270.3	Kwale
3	Kilifi	12,245.9	Kilifi
4	Tana River	35,375.8	Hola
5	Lamu	6,497.7	Lamu
6	Taitaï Taveta	17,083.9	Mwatate
7	Garissa	45,720.2	Garissa
8	Wajir	55,840.6	Wajir
9	Mandera	25,797.7	Mandera
10	Marsabit	66,923.1	Marsabit
11	Isiolo	25,336.1	Isiolo
12	Meru	6,930.1	Meru
13	Tharaka-Nithi	2,409.5	Kathwana
14	Embu	2,555.9	Embu
15	Kitui	24,385.1	Kitui
16	Machakos	5,952.9	Machakos
17	Makueni	8,008.9	Wote
18	Nyandarua	3,107.7	Ol Kalou
19	Nyeri	2,361.0	Nyeri
20	Kirinyaga	1,205.4	Kerugoya / Kutus
21	Murang'a	2,325.8	Murang'a
22	Kiambu	2,449.2	Kiambu
23	Turkana	71,597.8	Lodwar
24	West Pokot	8,418.2	Kapenguria
25	Samburu	20,182.5	Maralal
26	Trans-Nzoia	2,469.9	Kitale
27	Uasin Gishu	2,955.3	Eldoret
28	Elgeyo-Marakwet	3,049.7	Iten
29	Nandi	2,884.5	Kapsabet
30	Baringo	11,075.3	Kabarnet
31	Laikipia	8,696.1	Rumuruti
32	Nakuru	7,509.5	Nakuru
33	Narok	17,921.2	Narok
34	Kajiado	21,292.7	Kajiado
35	Kericho	2,454.5	Kericho
36	Bomet	1,997.9	Bomet
37	Kakamega	3,033.8	Kakamega
38	Vihiga	531.3	Vihiga
39	Bungoma	2,206.9	Bungoma
40	Busia	1,628.4	Busia
41	Siaya	2,496.1	Siaya
42	Kisumu	2,009.5	Kisumu(City)
43	Homa Bay	3,154.7	Homa Bay
44	Migori	2,586.4	Migori
45	Kisii	1,317.9	Kisii
46	Nyamira	912.5	Nyamira
47	Nairobi (County)	694.9	Nairobi (City)

Appendix II: Secondary Data Collection Form

		YEAR				
COUNTIES IN KENYA	**CODE**	**2014**	**2015**	**2016**	**2017**	**2018**
Mombasa	01	3,575,737,000.00	3,650,495,322.00	4,657,616,820.00	4,192,095,081.00	3,575,737,000.00
Kwale	02	1,681,579,752.00	1,835,235,216.73	1,796,955,475.00	1,859,211,202.00	1,681,579,752.00
Kilifi	03	957,086,042.00	876,327,359.00	2,241,390,229.00	1,120,929,090.52	957,086,042.00
Tana River	04	998,074,369.00	1,724,086,190.00	1,715,820,603.00	1,617,114,308.00	998,074,369.00
Lamu	05	120,595,555.00	158,760,734.00	45,915,833.00	129,167,656.00	120,595,555.00
Taita-Taveta	06	123,959,755.58	785,643,869.04	542,570,414.00	680,744,382.00	123,959,755.58
Garissa	07	229,978,982.78	745,108,890.00	975,087,872.78	1,247,910,635.00	229,978,982.78
Wajir	08	365,270,924.00	670,508,147.00	1,166,677,786.00	2,744,229,088.00	365,270,924.00
Mandera	09	2,572,789,686.00	1,651,183,745.00	1,838,968,034.00	2,149,828,538.00	2,572,789,686.00
Marsabit	10	630,573,238.00	381,596,669.75	696,020,761.00	778,609,327.46	630,573,238.00
Isiolo	11	169,246,992.00	875,286,417.00	983,333,725.00	1,201,944,525.00	169,246,992.00
Meru	12	1,823,511,367.00	1,311,158,152.00	1,511,219,240.00	3,169,680,217.00	1,823,511,367.00
Taraka-Nithi	13	801,331,772.00	329,904,865.00	666,383,725.00	417,114,546.00	801,331,772.00
Embu	14	254,444,180.00	1,042,904,103.00	940,974,958.00	1,216,891,482.00	254,444,180.00
Kitui	15	582,377,793.00	892,220,171.00	1,218,982,811.00	1,167,675,493.00	582,377,793.00
Machakos	16	2,799,764,650.00	1,812,966,935.00	2,851,588,263.00	1,559,526,692.91	2,799,764,650.00

Makueni	17	177,232,011.00	276,504,986.00	135,304,342.00	17,081,217.00	177,232,011.00
Nyandarua	18	407,802,113.00	563,895,932.00	387,571,280.00	740,606,636.00	407,802,113.00

		YEAR				
COUNTIES IN KENYA	**CODE**	**2014**	**2015**	**2016**	**2017**	**2018**
Nyeri	19	344,941,390.00	690,016,852.00	712,444,170.00	360,493,767.63	344,941,390.00
Kirinyaga	20	137,381,228.00	98,280,681.00	296,172,067.79	264,306,959.80	137,381,228.00
Murangá	21	1,155,857,476.00	1,132,753,757.00	1,524,476,370.00	1,841,330,912.00	1,155,857,476.00
Kiambu	22	608,992,518.54	383,364,248.00	1,065,477,153.00	2,316,638,468.00	608,992,518.54
Turkana	23	142,502,840.00	242,250,480.00	71,324,331.72	142,648,663.44	142,502,840.00
West Pokot	24	306,780,299.00	316,850,666.00	643,600,899.00	1,329,979,363.00	306,780,299.00
Samburu	25	408,018,095.00	1,226,090,673.00	694,667,710.00	685,205,008.46	408,018,095.00
Trans-Nzoia	26	232,007,056.00	464,014,032.80	696,021,088.80	1,263,846,780.00	232,007,056.00
Uashin Gishu	27	388,041,821.00	222,683,599.00	310,637,495.00	318,611,634.00	388,041,821.00
Elgeyo-	28	274,095,153.00	805,056,690.00	660,325,808.00	893,526,360.00	274,095,153.00
Nandi	29	487,529,124.00	663,460,957.00	664,609,044.00	743,727,329.00	487,529,124.00
Baringo	30	174,023,700.90	184,522,542.00	159,506,242.35	164,800,700.00	174,023,700.90
Nakuru	32	422,835,218.00	993,944,595.90	1,041,142,002.00	675,177,786.00	422,835,218.00
Narok	33	2,457,198,628.00	3,021,217,393.00	1,912,812,405.00	1,942,041,457.00	2,457,198,628.00
Kajiado	34	502,260,000.00	1,680,372,462.00	1,653,245,753.00	1,858,297,237.00	502,260,000.00
Kericho	35	679,475,455.00	1,056,328,567.00	1,192,027,739.00	766,806,193.00	679,475,455.00
Bomet	36	404,402,000.00	552,632,000.00	455,380,000.00	1,120,457,000.00	404,402,000.00
Kakamega	37	209,861,001.00	188,494,461.00	269,086,968.00	296,240,147.00	209,861,001.00

Vihiga	38	626,364,291.00	734,940,287.84	799,421,944.10	593,950,375.94	626,364,291.00
Bungoma	39	856,030,491.96	1,184,023,847.00	1,062,857,878.00	1,789,581,937.00	856,030,491.96
		YEAR				
COUNTIES IN KENYA	**CODE**	**2014**	**2015**	**2016**	**2017**	**2018**
Busia	40	203,142,778.00	668,889,552.00	866,576,636.63	995,278,628.58	203,142,778.00
Siaya	41	275,859,982.00	1,153,983,995.00	661,804,232.00	759,702,185.00	275,859,982.00
Kisumu	42	536,460,291.00	2,310,350,168.23	2,537,245,197.00	2,266,045,366.00	536,460,291.00
Homa Bay	43	404,413,025.00	466,745,778.00	544,504,940.00	742,315,940.00	404,413,025.00
Migori	44	426,733,710.00	773,759,054.67	640,055,247.00	604,527,694.00	426,733,710.00
Kisii	45	2,067,684,770.00	818,726,121.00	894,977,152.00	1,264,907,554.00	2,067,684,770.00
Nyamira	46	402,534,242.00	89,241,581.41	461,704,920.00	205,040,545.00	402,534,242.00
Nairobi	47	7,039,185,553.00	48,297,618,839.00	51,543,133,249.00	63,551,642,435.07	47,039,185,553.00

Appendix III: Research Questionnaire

This questionnaire has statements regarding the contributions of IFMIS towards effective management of pending bills in the county government. Kindly take few minutes to complete the questionnaire as guided. Your responses will be handled confidentially and ethically

SECTION B: GENERAL INFORMATION

1) Gender

Male ( ) Female( )

2) Age Bracket

18 - 25 Years ( ) 26 -35 Years ( )

37 - 45 Years ( ) 46 - 55 Years ( )

Over 56 Years ( )

3)AcademicQualifications

PhD Level ( ) Masters Level ( )

First Degree Level ( ) Diploma Level ( )

4) How long have you been working in your department

1 - 2 Years ( )

2 - 4 Years ( )

4 - 6 Years ( )

6 - 10 Years ( )

10 – 15 years ( )

Above 15 Years ( )

SECTION C: INVOICE PROCESSING

This section aims at establishing invoice processing mechanisms used by the county government.

5) What is your level of agreement with the following statements on Invoice Processing systems in your offices:

(On the scale of 1-5, indicate 1-Strongly Agree; 2 - Agree; 3 - Neutral; 4 - Disagree; 5 – Strongly Disagree)					
Statements	**1**	**2**	**3**	**4**	**5**
The County Automatically extracts key information of invoices for import into IFMIS					
There is Validation of invoices and checking of invoice data against data files					
The Purchase Orders are Matched and checked against the Invoices to make sure the invoice matches the original order					
There is availability of a secure, organized and searchable invoice archive and audit trail					
The County ensures Prompt invoices processing, keeping track of due dates and status changes, and having control over cash flow management					
The county has a digitalized invoice lead time mechanisms					
There is an Automated Invoice Tolerances configuration which allows for elimination of variance in terms of Prices and /Quantity					
The Suppliers balances are reflected as you create a purchase order in the IFMIS					
The County has in place an Invoice approval workflow in the IFMIS system					

SECTION D: FUNDS AVAILABILITY:

This section aims at how funds availability for IFMIS is ascertained

6) What is your level of agreement with the following statements?

(On the scale of 1-5, indicate 1-Strongly Agree; 2 - Agree; 3 - Neutral; 4 - Disagree; 5 – Strongly Disagree)					
Funds availability are checked at the following stages	**1**	**2**	**3**	**4**	**5**
Purchase Requisition Stage					
Local Purchase Order/ Local Service Order Stage					
Invoice Validation Stage					
Payment stage					
The National treasury releases exchequer payments on time					
County end year transactions are done efficiently and timely					

SECTION E: TRANSPARENCY AND ACCOUNTABILITY

This section aims at establishing levels of transparency and accountability in implementation of IFMIS in the County government

7) Please state your agreement or disagreement with the following statement by checking the appropriate box;

(On the scale of 1-5, indicate 1-Strongly Agree; 2- Agree; 3-Neutral; 4 -Disagree; 5 – Strongly disagree)					
Statements	**1**	**2**	**3**	**4**	**5**
There is an efficient system of recording and processing of County financial transactions thus allowing prompt and efficient access to reliable financial data					
Deployment and use of public resources is done accountably					
Financial disclosures are made regularly to provide a picture of financial activity to the public					
The public expenditure Programme is done in an efficient and effective way					
County Government has put in place an automated financial system that has improved control over expenditure.					

SECTION F: FINANCIAL REPORTING SYSTEMS

This section aims at establishing financial reporting systems that are employed in implementation of IFMIS.

8) Please state your agreement or disagreement with the following statement by checking the appropriate box;

(On the scale of 1-5, indicate 1-Strongly Agree; 2 - Agree; 3 - Neutral; 4 - Disagree; 5 – Strongly Disagree)

Statements	1	2	3	4	5
Financial data is easily extracted and presented from IFMIS in ways that facilitate its analysis					
Easy access to IFMIS allows derivation of specific financial information					
Built-in analytical tools allows the running of trend analysis of various elements of fiscal operations					
Transactions data is reconciled in real-time.					
The County governmentsô financial position is accurately disclosed to the public					
Custom reports for internal and external use are easily generated					
Financial information which enhances decision making is offered real-time					