

**EFFECT OF INFORMATION COMMUNICATION TECHNOLOGY ADOPTION
ON FINANCIAL MANAGEMENT IN MERU COUNTY GOVERNMENT**

BONFACE MUTUMA MUGAMBI

**A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND ECONOMICS IN
PARTIAL FULFILMENTS FOR THE CONFERMENT OF DEGREE IN MASTERS
OF BUSINESS ADMINISTRATION OF KENYA METHODIST UNIVERSITY**

SEPTEMBER, 2019

Declaration and recommendations

Declaration

I declare that this thesis is my original work and has not been presented to any other award in any other university.

Signature..... Date.....

Bonface Mutuma Mugambi

Reg. No. Bus-3-0480-2/2016

Recommendation

This thesis has been submitted with our approval as university supervisor.

Signature..... Date.....

Dr. Paul Gichohi (PhD)

Signature..... Date.....

Susan Kambura

Copyright

All rights reserved. No part of this thesis may be reproduced, stored in any retrieval system or transmitted in any form or by any means, electronically, mechanically, by photocopying or otherwise, without prior written permission of the author or Kenya Methodist University, on that behalf.

Dedication

This piece of work is a humble dedication to my family, who have always been my support and inspiration.

Acknowledgement

This research project would not have been successful without the great contribution and dedication of various individuals. I would wish to express my gratitude to all of them. First and foremost, I want to appreciate my supervisors Dr Paul Gichohi (PhD) and Mrs Susan Kambura for their guidance, encouragement and advice.

Abstract

Information Communication Technology (ICT) is used in different areas. The common factor is its acceptance as a technology for facilitating transfer of information by use of electronic mode. Financial management automation is where financial activities are computerization from the preparation of the budget all the way to budget execution using an integrated financial management system. Despite the significance of automating of financial management, the audit report of Meru County government by the auditor general indicated that Meru County Government as having poor ICT policy for key functions such as the budgeting process, revenue collection and procurement processes. There is no report showing that the problem has been addressed to date. Lack of effective financial management practices in the aforementioned functions hinders effective service delivery. The main purpose of the study was to find out if ICT adoption has a significant effect on financial management in the public sector in Kenya purposing on Meru County Government. The study was done the sole aim of achieving a definite objective: to examine the effect of budgeting process automation, revenue collection automation, procurement process automation and cash management automation on financial management. This study used the three theories; diffusion of innovation, systems theory and the technology acceptance model. The study used a census survey of seventy respondents which comprised of fifteen (procurement officers, six budget officers, thirty six accountants, twelve revenue officers and one chief officer in charge of finance. The study used Questionnaire as a research instrument for data collection. For the determination of validity of instruments, content validity index was used. The cronbach's alpha was computed in order to assist in measuring the reliability of instruments used to collect data and also to measure the internal consistency. The finding of the study shows that all the four predictors are relevant in financial management in the Meru County Government. The study established that budgeting process automation affected financial management in Meru County to a great extent. The study found out that revenue collection automation affected financial management in Meru County to a great extent. The study found that procurement process automation affected financial management in Meru County. The study also found out that cash management automation affected financial management in Meru County to a great extent. On The study recommends that for Meru County to overcome the challenges of budgeting process automation the county should fully embrace the use of ICT and train the users to enhance their skills. On revenue collection automation the study recommends integrated form to enhance efficiency timely revenue collection, enhance management integrity and provide clear records among other factors. On Procurement process automation a fully automated process to be implemented to that will make sure transparency is achieved and proper record keeping. On cash management automation the accountants and other relevant employees to fully use the systems in place to ensure no county money is lost through cash handling.

TABLE OF CONTENTS

Declaration and recommendations.....	ii
Copyright	iii
Dedication	iv
Acknowledgement	v
Abstract.....	vi
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the study.....	1
1.2 The Concept of Information and Communication Technology (ICT).....	2
1.3 The Concept of Financial Management in Organizations.....	4
1.4 Global use of ICT in Financial Management	7
1.5 ICT and Financial Management in Kenya	9
1.7 Statement of the problem	14
1.8 Purpose of the Study	15
1.9 Research Objectives	15
1.10 Research hypothesis	16
1.11 Significance of the Study	16
1.12 Scope of the study	17
1.14 Assumptions of the Study	18
1.15 Definition of Operation Terms.....	18

CHAPTER TWO	20
LITERATURE REVIEW	20
2.1 Introduction	20
2.2 ICT adoption and public financial management	20
2.3 The budgeting process automation and financial management	24
2.4 Influence of Revenue collection automation and financial management	28
2.5 Procurement automation and financial management	33
2.6 Cash management automation and financial management	36
2.7 Theoretical framework	39
2.8 Diffusion of Innovations (DOI) Theory	40
2.9 Systems theory	41
2.10 Technology Acceptance Model (TAM)	42
2.11 Conceptual framework	44
2.14 Chapter Summary	49
CHAPTER THREE	50
RESEARCH METHODOLOGY	50
3.1 Introduction	50
3.2 Location of the study	50
3.3 Research design	50
3.4 Target Population	51
3.5 Sampling procedures and techniques	51

3.6 Data collection method.....	52
3.7 Pilot testing.....	53
3.8 Instruments' Validity.....	54
3.9 Reliability of the instrument.....	54
3.10 Methods and procedures of data collection.....	55
3.11 Data analysis techniques	55
3.12 Diagnostic Tests for multiple regression.....	56
3.13 Ethical considerations	57
CHAPTER FOUR.....	58
RESULTS AND DISCUSSION	58
4.1 Introduction	58
4.2 Response Rate	58
4.3 Reliability Analysis	59
4.4 Background Information of Respondents	59
4.5 Gender Distribution of Respondents	59
4.6 Working Experience of Respondents	60
4.7 Level of Education of Respondents	62
4.8 Descriptive Statistics on Predictor Variables	62
4.9 Descriptive Statistics on Budgeting Process Automation on financial management in Meru County Government	63
4.10 Descriptive statistics on Revenue collection automation in Meru County Government	65

4.11 Descriptive statistics on Procurement Automation in Meru County Government	67
4.12 Descriptive statistics on Cash Management Automation in Meru County Government	70
4.13 Descriptive statistics on Financial Management in Meru County	73
4.14 Multiple Regression Analysis	74
4.15 Inferential Statistics on Study Variables	76
4.16 Hypothesis Testing	76
4.17 Influence of budgeting process automation on the financial management in Meru County government	79
4.18 Effect of revenue collection automation on the financial management in Meru County government	80
4.19 Influence of procurement process automation on the financial management in Meru County government	81
4.20 Influence of cash management automation on the financial management in Meru County government	81
CHAPTER FIVE	85
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	85
5.1 Introduction	85
5.2 Summary of the Major Findings	86
5.3 Effects of budgeting process automation on financial management	86
5.4 Effects of revenue collection automation on financial management	87
5.5 Effects of procurement process automation on financial management	87

5.6 Effects of cash management automation on financial management	88
5.7 Conclusions	88
5.8 Budgeting process automation and financial management in Meru County government	89
5.9 Revenue collection automation and financial management in Meru County government	89
5.10 Procurement process automation and financial management in Meru County government.....	89
5.11 Cash management automation and financial management in Meru County government	90
5. 12 Recommendations	90
5.13 Recommendations on Budgeting process automation and financial management in Meru County government	90
5.14 Recommendations on revenue collection automation and financial management in Meru County government	90
5.15 Recommendations on procurement process automation and financial management in Meru County government	91
5.16 Recommendations on cash management automation and financial management in Meru County government	91
5.17 Areas of Further Research.....	92
Reference	93
APPENDICES	107
APPENDIX I:	107

APPENDIX II.....	108
Research Questionnaire	108
APPENDIX III.....	114

LIST OF TABLES

Table 3.1 Target Table population.....	44
Table 3.2 Sample size.....	45
Table 3.3 Variable operationalization.....	50
Table 4. 1	55
Table 4. 2 Overall Response Rate	58
Table 4. 3 Distribution of Respondents by Gender	60
Table 4. 4 Years of service.....	61
Table 4. 5 Level of Education of Respondents	62
Table 4. 6 Budgeting process automation on the financial management in Meru County	64
Table 4. 7 Revenue collection automation on the financial management in Meru County	66
Table 4. 8 Procurement Automation on the Financial Management in Meru County	68
Table 4. 9 Cash management automation on the financial management in Meru County	71
Table 4. 10 Financial Management on Meru County government	74
Table 4. 11 Multiple Regression Analysis	76
Table 4. 12 Model Summary on the Independent variables.....	77
Table 4. 13 Influence of Independent variables on financial management in Meru County government	78
Table 4. 14 Influence of Independent Variables on Financial management.....	79
Table 4. 15 Influence of Coefficients Matrix Model	82

LIST OF FIGURES

Figure 1 Conceptual framework.....	41
---	-----------

ABBREVIATIONS AND ACRONYMS

AIE	–	Authority to Incur Expenditure
CEC	–	County Executive Committee
CGM	–	County Government of Meru
CO	–	Chief Officer
COB	–	Controller of Budget
DG	-	Deputy Governor
GIFMIS	-	Government integrated Financial Management Information System
GOK	–	Government of Kenya
ICT	–	Information Communication Technology
IFMIS	–	Integrated Financial Management Systems
IMF	–	International Monetary Fund
KNAO	–	Kenya National Audit Office
MTEF	-	Medium Term Expenditure Framework
NT	–	National Treasury
PFM	–	Public Financial Management
SIBET	-	Soft Issues Bid Evaluation Tool
SPSS	–	Statistical Package for Social Sciences
UN	–	United Nation

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

This study was set out to explore how Information Communication Technology (ICT) has been used in improving financial management in Meru County Government. This chapter starts by introducing what ICT is and its use in financial management. The chapter provides various areas of application of ICT in the management of finance in public sector globally and within the country.

The statement of the problem is highlighted in this chapter which leads to framing of the general objectives of the study and the specific objectives. The study had one main specific objective which was to investigate whether the adoption of ICT has affected the financial management in Meru County government. The specific objectives for the study were: To examine the effect of budgeting process automation on financial management in Meru County Government; to examine the effect of revenue collection automation on financial management in Meru County Government; to assess the effect of procurement process automation on financial management in Meru County Government and to assess the effect of cash management automation on financial management in Meru County. The importance and value of the study to various stake holders is also elaborated. The scope section clearly identifies where the study was conducted and demarcate the areas of focus. There are also the limitations that the researcher experienced during the study and how to counter them is well indicated in the study. The chapter concludes by providing contextual meaning of various terms as used in this study.

1.2 The Concept of Information and Communication Technology (ICT)

Manueli, Latu, and Koh (2013) assert that Information and communications technology abbreviated as ICT, is used as an extended synonym for information technology (IT). This expression initially was used in 1997 where Dennis Stevenson produced a report to be presented to the UK government and thereafter elevated by National Curriculum documents for the UK in 2000.

Information and communication technology (ICT) has been defined by various scholars using various terms. Listyarini, Ratnaningsih and Yuliana (2016) defined ICT as any use of technology to access, gather, manipulate and present meaningful information at the end. Kioko, Malowe, Martkin and Moody (2015) noted that ICT is a technology used to support information gathering, processing, tabulation and presentation in a meaningful form. ICT is used in different areas and in all these, the common factor is its acceptance as a technology used to facilitate movement of information through use of variety electronically aided communications for ease of access and decision making (Koltay, 2016). In that connection and with reference to the focus of this study, financial management automation can be argued as the automation of public financial activities from preparation of budget all the way to budget execution using a fully integrated system for financial management in all government ministries and other agencies that receive funding from the exchequer (Kirmani, Wani, & Saif, 2015).

Information communication technology adoptions in financial management enables organization create a better working environment and improve its service delivery. ICT is a means to enable a modern competition of business institution globally focusing more on improving their efficiency to a good service to the customer (Al-Rahimy, 2016). After all these considerations, generally there is an agreement that any organization operating as a

private entity or public entity should consider information and communication technology as a better approach in employing efficiency in management, better service delivery and an improved competitive edge in the market. Moreover, ICT is a platform used by the government to enable the citizens of the country in accessing information on government accountability and transparency (Nkeobuna & Ugoani, 2017).

Kirmani et al. (2015) investigated the impacts of ICT on effective financial management in Indian public financial services and found that operations in the financial market where ICT is not in use, there is an inability by the financial markets to consistently respond to new development globally and finance companies are disadvantaged in acquiring information compared to their competitors. They noted that there is a high correlation between the system used in financial management and the outcome in regard to financial reporting and social accountability. They found that use of ICT in public financial management leads to cost cutting, transparency in reporting, clear budgeting procedures and ease in record keeping (Mulwa, 2015).

Budgeting in every organization is the first step for accountable financial management by guiding in equitable resource allocation based on priorities (Chado, 2015). To establish a robust and effective program-based budgeting, a good ICT database must be put in place for the purposes of ensuring every programs is positioned for consideration based on its priority (Dener & Min, 2013). Nkeobuna and Ugoani (2017) noted that weak public financial management in Nigeria is as a result of top management unwillingness to implement modern forms of financial management.

In Kenya, the government has initiated various reforms in trying to better manage its financial resources which have been cascaded down to the devolved units since their establishment in the year 2013. It has therefore made effort to have an e-government where

ICT is not only meant to bring public services online, but also aimed at reducing overall operational costs with an ultimate goal of creating sustainable social and economic value to its citizens (World Bank, 2015).

1.3 The Concept of Financial Management in Organizations

Many authors and scholars have used business finance and financial management interchangeably but according to Ashkul (2016), business finance is broad because it covers all forms of business; sole proprietorship, partnership, limited companies, joint ventures, while financial management deals with financial problems of all entities being in business to make profit or not for profit organizations. These financial problems include the administration of the available resource, accounting challenges in drawing a line between capital and income and the financial reporting as required by regulating bodies (Jain & Yadav, 2015).

The financial management is an aspect which plays a key role in every entity when it comes to resource management, in all sectors may it be the public institutions and government agencies or private sector. The main aim is to plan comprehensively, maintain a prudent financial balance, provide real mechanism for raising capital to sustain the entity, and keep in check any threat of financial constrains (Gomes, Alfinito, & Albuquerque, 2015). Ashkul (2016) contends that financial management is mainly involved in sourcing of funds and their effective utilization to achieve the objective of the organization which is the wealth maximization.

The financial management aspect in the public sector deviates from the profit motive and wealth maximization to social accountability and efficient service delivery (Paramasivani, 2015). From this special aspect of financial management motive, we can draw a conclusion that though the motive is different, there is an intertwined understanding of financial

management both in the public and the private institutions.

Though financial management has often been viewed as part of administrative concept pertaining to efficiency and effectiveness, scholars have positioned it to a better view where democratic ideal and equity in resource distribution is well captured (Paramasivani, 2015). The clear cut understanding of financial management is the administration action of the available resources in an equitable way to render service and benefit to where they came from. One aspect that stands out in public financial management is equity on the burden between the current and future generation which has not been well studied. However, (Kioko, Marlowe, Matkin, Moody, et al., 2015) in discussing how equity in public resource utilization has brought a social equity aspect, the study failed to put much attention on generational resources and liability distribution.

In developed countries in the world, financial management controls and the public sector accountability are controlled through set standards like in the united state (Mwaura, 2016). The Governmental Accounting Standards Board (GASB) and the Federal Accounting Standards Advisory Boards (FASAB) which are mandated to improve on financial reporting in the united states have for many years brought some consistency in public financial reporting and usefulness of financial information (Benhabib & Bisin, 2015). Despite the broad effort and facilitation from all corners, accounting standards adoptions has been met with institutional resistance and a sheer ignorance by the existing power holders which have necessitated a reinvention of incorporating ICT (Tarutė & Gatautis, 2014).

The developing economies have been challenged more in this noble course of achieving excellence in public financial management. Taking an example from African countries, Zambia with the help from the world bank has been implementing various reform to achieve improvement in public financial reporting but little progress has been made (Wakiriba,

Ngahu, & Wagoki, 2014). From the history, public sector has always faced various challenges one being capacity constraints together with inadequate information process and systems. Weak internal controls and non-compliance with the set financial procedures is a key indicator to poor accountability of government expenditures. Notwithstanding the issue for the Zambian government other countries like Ghana in Africa South Africa have recorded a success though not fully in public financial management reforms (United Nation, 2016).

Kenya is considered the most vibrant, innovative, strong with a diversified economy in Eastern Africa although Rwanda is coming up with more prospects (Karanja & Ng'ang'a, 2014). This country has the potential to turn its fortune and become a global economic giant due to some improvement made in financial management and make significant achievements on a better economic environment doing slightly better in comparison with the peers in Sub-Saharan Africa (SSA) (Kenya Governemnt and Gouvernement of Denmark, 2014). This progress is captured from the understanding of financial management as how we raise finances and put them into use and latter provide better account of usage. Kenya has established one of the largest tax base in Africa and enacted laws that guide use of its resources like PFM Act, the Public Audit Act of 2015 and various other legislation that guides prudency financial management (Musoke, 2017b).

However, there is the most unfortunate thing in Kenya derailing all this achievement, misuse of public resources has derailed the desired progress in the country (Otieno, Oginnda, Oburu, Ojera & Siringi, 2013). The menace of corruption issue has forced the government to invent many ways of dealing with theft of public funds. One of the major options was to make government transactions cashless through introduction of ICT in its operation and it's this gap being sealed that has necessitated this study.

1.4 Global use of ICT in Financial Management

Adoption of ICT in public financial management is rapidly changing the global accountability, work, procurement methods and public perception on the governments of the day (Kirmani et al., 2015). (Karanja & Eva, 2014) and (Cosma, 2015) contend that with modern trends in information communication technology and government moving online, it is now an issue of concern for the government to strengthening its internal administration in order to achieve efficient and effective service delivery. This will also include the movement of service delivery points which is traditionally a conventional office to areas which are near to recipient of those services such as cyber cafe or at home through use of personal computers. It is impossible to ignore the milestones achieved through adoption of ICT in government but similarly we can note other areas playing catch to the current trends as well.

The main challenges that surround smooth ICT adoption mostly emanates from the very users of the systems in the government (Cordella & Tempini, 2015). In achieving a digital government, Onuorah (2012) argued that strategies that are being employed should be embedded in mainstream modernisation policies and bring all the stakeholders on board from both within and outside the government for a full acceptance and sense of ownership for the achievement of a positive final outcome.

The shifting from manual operations to technological use in painting a new picture of public governance, will offer not only support to government processes but also a well-organized strategic planning at all levels in public sector financial management (Institute of Certified Public Accountant Kenya (ICPAK), 2014). Any public sector around the globe is considered a bureaucratic system due to the units constituting the government though each has its own responsibilities and a defined autonomy but they must act in harmony (Mugambi, Fridah, & Theuri, 2014). Carvalho (2002) noted that the main challenge of ICT adoption in government

is lack of political goodwill and an all ownership of systems within the many units of government. In the many struggle to achieve overall public sector reform and prudence in financial management, there is a need to balance an equation of professionalism and political will for better accountability.

Public financial management reform in African countries has been an issue being pushed by international donors castigating adoption of information Communication technology which will bring sanity and accountability of public resources. The evaluation of countries based on their financial reporting and other financial processes, produces a ranking showing the level of lending risk to the government. Countries with a good performance score bears a lower borrowing risk consequently lowering the borrowing cost for the respective country in the international market (United Nation, 2016).

According to United Nations Development Assistance Plan, (2018) many countries in Africa who are members of the united nation have been integrating ICT in their financial management although others are yet to achieve a commendable progress. By taking a walk through some of the countries being taunted as good examples in Africa, South Africa has an accounting system which is fully automated but it lacks in that integration with other government departments is yet to be done (Cosma, 2015). There is also a positive step being undertaken by Uganda and Ghana although the accounting systems being used in these countries are not fully automated.

The advocacy to the public sector to embrace ICT in financial management will always work to their advantage because of the many benefits that accrue as a result of this improvement. By having a good PFM it means the country will have earned good rating score in terms of borrowing risk hence becoming attractive in the international open market. These borrowing that are done in the international market are mainly for funding infrastructure development

and every country would wish to borrow at a cheaper rate. The international organizations pushing for PFM reform are doing so mainly to safeguard their interest as international donors and any country lagging behind in implementing the reforms has not been spared either. Uganda has faced the axe whose financial aid from England, Ireland Norway and Denmark was suspended in 2012 due to the government failure to meet the requirement of the donors (United Nation, 2016).

There was also another case in Africa when in November 2013, the UK, EU, Norway and other international donor organisations also felt it's the high time their aid remain where accountability is un questionable. Government of Malawi could not exonerate government officials from allegation of siphoning millions of dollars even though the country had adopted IFMIS (Wong, 2015).

1.5 ICT and Financial Management in Kenya

ICT has become an increasingly important factor in the development process of nations (Abdul Salam, Sheriff, & Al-Araji, 2018). An effective implementation of ICT in government can only be viable if the personnel have the skills and the right attitudes across government (Serah, 2014). In addition, (Wangari, 2014) states that, the country must be e-ready to reap a positive of its effort in adopting these new and modern methods of easing service delivery to the citizens. According to world global e-government survey, Kenya is ranked at position 124 compared to a total of 184 united nation member countries (World Bank, 2010). Another survey done in the year 2016 revealed that some 128 countries are currently providing a datasets on government spending through use of machine readable format which is accessible to the citizens and open for scrutiny (United Nation, 2016).

The government of Kenya has received various audit queries from the auditor general and also governments' agencies have not management to escape this accusation as well. The issue

of concern in all these audit queries is poor accounting systems, lack of a well-structured financial management system which can aid in timely decision making, misappropriation of public funds and random budget allocation with each government agency acting independently (Accountants General Department, 1997).

According to Kenya constitution (2010) in the year 2010 Kenya as a country was reborn by promulgating a new constitution establishing two levels of government. The constitution has a whole chapter dealing with public finance which advocate for PFM reforms. The bottom line of these reforms is to achieve fiscal efficiency and discipline when it comes to use of public fund in the country and establishing of constitutional and independent offices with an aim of decentralization and achieve clear accountability in the public finance management.

In order to actualise the requirement of chapter 12 of the constitution, the Kenyan parliament has enacted PFM act of 2012 and PFM regulations of 2016 to fill the gaps left by the constitution in achieving fiscal discipline within the country. There has been a roadmap in reforming PFM in the country which gained a momentum since these laws were enacted. The main aim of these reforms is to make PFM in the country efficient, effective, participatory through public participation and transparent in order to enhancing accountability in the public sector (Nyakarura, Mutuma, & Ileri, 2016).

In achieving this objective of PFM reforms, the Kenyan government embarked on a fact finding mission through the the Accountant General's Department which undertook a comprehensive audit in the year 1996 (GOK, 2014). During this exercise there was a thorough analysis of financial management activities review, personnel capacity assessment and an evolution of the role being undertaken by the internal audit department regarding the public financial management (Treasury, 2015).

According to Accountants General Department (1997), The government realized a need to take some corrective actions by embarking on a reviewing the Department of Accountant General structures as the department concerned with budget execution (Accountants General Department (AGD), 1997). From the report that was done, various weaknesses and gaps in financial management were highlighted.

The report focused mainly on a need to come up with clear road map which will improve management of finances in government, improve skills of system users and also strengthen the capacity of government units concerned with financial management (Accountant General's Department, 1996). The issue of budget making against the expenditure was also focused with an evaluation being done on the relationship between improved financial system and timeliness of financial information (PFM Act, 2012). The report recommended that this could only be possible if a working and reliable information system can be put in place. It was recommended that adoption of ICT will integrate the chart of accounts by linking the budget preparation with budget execution for achieving a treasury single chart of account as prescribed in the PFM Act of 2012.

This integration denotes an elimination of translation required from the two separate structures hence the manual error prone mode of translation being abandoned. It is from this time the government shifted focus and decided to have an information system in place for its financial activities. Back in 2003 the republic of Kenya government initiated the implementation of ICT in its financial management process to seal the shortcomings being witnessed from Soft Issues Bid Evaluation Tool (SIBET) the government had used for a long period (Public Finance Management Act, 2012).

The aim and the wish of the system at that time was to have a system that could link Kenya revenue authority for the purposes of revenue collection, the central bank in order to monitor

the revenue collection and disbursement of funds as well as management of treasury single account (GOK, 2014). The state department for public service was also supposed to be integrated for ease of managing the payroll systems to curb the issue of ghost workers. The contribution toward PFM reforms by ICT was huge and the coordination unit at treasury noted its importance in the economic recovery strategy (GOK, 2014).

Initially prior to the promulgation of the constitution 2010, the government came up with a master plan which was to integrate the 42 ministries and the 175 municipal and county councils which operated within the country at the time (GOK, 2014). With now the new constitution in place and the anticipated elections which were to take place in 2013 the government had to prepare financially by automating the budgeting process for the financial year 2011/2012.

When the county government came into place, full use of ICT inform of IFMIS was rolled out in the devolved unit and a strategic plan for the period 2013-2018 dubbed IFMIS re-engineering was launched (GOK, 2014). There was a campaign and intense training to ensure the system is fully implemented and utilised in all the levels of government. The collaboration is still going on to improve all the areas of ICT mostly on the solution to security concerns being raised by various sections of the government and have an automated report generation.

1.6 ICT and Financial Management in Meru County

The Meru County Government (MCG) after the 2010 Constitution of Kenya came to effect in the year 2013 and took over from the defunct four local authorities that were operating in Meru County. The County is found on the east of Mt. Kenya. Meru County neighbours Laikipia County to the West, on South West is Nyeri County, to the East there is Tharaka-Nithi County and North side is Isiolo County. The equator line passes through the Meru

county lying approximately 00 6' North and about 00 1' South, at a latitudes of about 370 West and 380 East (Meru County government, 2013). The county covers an approximate area of 6,936.2 km² and 1,776.1 Km² according to government records is forest land. According to the 2011 KNBS estimates, the population of the county is over 1,443,555 people (Kenya National Beaural of Statistics, KNBS, 2011).

According to the general understanding, MCG has a responsibility of providing various services to residents living within the county. The responsibilities of the county Governments are indicated in the fourth schedule of the constitution drawn from what the local authorities used to do and others which were done by the national government (Meru County government, 2013). The County is guided by its vision to be great and one of the pillars is ICT use in the county as stipulated in the county ICT roadmap. From the year 2013 when the MCG was set up, numerous challenges have been raised on the weak financial management controls (KENAO, 2018).

The County has an ICT sector which is striving to automate all County services in order to improve o its operations, enhance efficiency and effectiveness for better service delivery. For the financial management the county uses IFMIS which is the design by the National Treasury for enhancing prudent financial management. It is however noted that the management of the Meru county has been on the receiving end being accused of financial impropriety like undertaking of projects without budgets, failure to use the government payment system and collection of revenue which is never reflected in the county revenue account (Kenya National Audit Office (KENAO), 2018).

These issues have invited the office of Ethics and Anti-Corruption Commission (EACC) attention to scrutinize on the operation of the County Government (CG) and the recent audit by deloitte which revealed a big number of ghost workers being paid out of the public coffers

(Kaimenyi, 2018). A close examination of the audit report 2016, the auditor general revealed that the MCG lacked or has no clear ICT policy which is a challenge on its functions. This point's out a great need of investigating the influence of ICT adoption in the management of finance in Meru County Government.

1.7 Statement of the problem

ICT adoption has become a major requirement for business operations and especially in management of finances (Attom, 2016). The Kenya government introduced IFMIS way back in the year 2003 and the main aim was to have a system that will curb corruption and provide sound financial management having gone through various reviews since inception (GOK, 2014).

Despite the significance of ICT use financial management, the audit report of Meru County government for the year ended 30th June 2017 (Kenya National Audit Office (KENAO), 2018), indicated that Meru County Government as having poor ICT policy for key functions such as the budgeting process, revenue collection and procurement processes. Lack of effective financial management practices in the aforementioned functions hinders effective service delivery.

The situation needs to be addressed failure to which public resources will continue to be embezzled by public officers and the government will fail in fostering social accountability. The existing studies such as by Chado (2015); Nkeobuna and Ugoani (2017); Dener and Min (2013); Carvalho (2002); Njeru (2016) and Mulwa (2015) largely focused on challenges facing implementation of ICT. Other studies like Njoroge and Wanyoike (2016); Nyakarura et al., (2016), Fundi (2014), and Kyobe and Kyobe (2011) were investigating adoption of ICT effect on procurement in the public sector.

There exists little study on how ICT adoption is affecting financial management on key areas like revenue collection and related functions which are not directly integrated to IFMIS. This study is set out to investigate ICT policy adoption in financial management practices where it will specifically assess the effects of automating the budgeting process, revenue collection and procurement processes on prudent financial management in Meru County Government, Kenya.

1.8 Purpose of the Study

The main purpose of this study was to find out if ICT adoption has a significant effect on financial management in Meru County Government with a view to find significant relationship on the success of ICT adoption of county governments.

1.9 Research Objectives

The main objective of this study was to investigate whether the adoption of ICT has affected the financial management in Meru County government.

The specific objectives that were to be achieved by the study were:

- i. The effect of budgeting process automation on financial management in Meru County
- ii. The effect of revenue collection automation on financial management in Meru County
- iii. The effect of procurement process automation on financial management in Meru County.
- iv. The effect of cash management automation on financial management in Meru County.

1.10 Research hypothesis

The following hypothesis guided the study based on the objectives of the study in regard to the contribution of ICT adoption on financial management in Meru County.

H₁ Budgeting process automation does not significantly affect financial management in Meru County.

H₂. Revenue collection automation does not significantly affect financial management in Meru County.

H₃. Procurement process automation does not significantly affect financial management in Meru County.

H₄ Cash management automation does not significantly affect the financial management in Meru County.

1.11 Significance of the Study

The findings of this study would be use to the employees and other users involved in financial management in learning more on various fiscal measures by the government for an improved and prudent public financial management. The findings of the study can be used for planning purposes since it will highlight how ICT adoption is affecting prudence financial management. To the County Governments, the study will be useful especially to decision makers involved in implementing ICT strategies for their Counties. The County heads will use the findings as the base upon which to review the county readiness towards adoption of ICT projects. The ICT Authority and the National Treasury as the regulators and the policy setters, when doing further regulations to guide ICT use and financial matters this study ca be used as a reference point.

From what the study found, the county government can come up with other guidelines that can help to effectively cope not only with the difficulties of ICT adoption and implementation

but also in measuring performance outcomes. To the general society and the Kenyan tax payers, this study will provide an insight on how county government is prudently utilizing its resources. For accountability purposes, there will be an improved mechanism of financial reporting and transparency.

The public will be able to log into the county government website and access all the information they may wish to know regarding their financial resources and budgetary allocations. The study will enrich and provide more insight to the existing body of literature regarding ICT adoption in public financial management benefiting researchers and any learner wishing to carry out further study in related fields.

1.12 Scope of the study

Besides the fact that ICT may be used in all the counties to enhance service delivery and ease work, the researcher focused on only Meru County. The study was descriptive in nature and was carried out in Meru county government targeting the senior managers of the county and other staffs involved in financial management of the county. The established Effect of Information Communication Technology Adoption on Financial Management in Meru County Government. This study used the three theories; diffusion of innovation, systems theory and the technology acceptance model. Descriptive survey research design study was adopted in this study. Meru county government staff formed the population of the study. The study did not cover other counties it only focused on Meru County.

1.13 Limitations of the Study

The employees were not ready to answer the questions directed to the researcher for fear of being victimized by their seniors particularly due to sensitivity of the topic which touches on the financial management of the county. To overcome this, the researcher not only asked for financial records and post questionnaires but visited the county senior officers in person and

sought authority to conduct the research in their County. Some respondents showed reluctance in disclosing relevant records and support during data collection.

The study was also limited by limited access to materials related to financial management that are used by county governments hence appropriate information might not have been obtained. However, the researcher did further research on the topic by using books and any other source of information such as internet in order to understand much on effect of effect of ICT adoption on financial management in Meru County.

1.14 Assumptions of the Study

This study was based on the following assumptions:

First, it was assumed that adoption of ICT in public financial management is aimed at yielding positive outcome to the extent that this study targets to establish. Second, it was assumed that the respondents would cooperate and provide the needed information truthfully to the objective. Lastly the information being provided by the respondents was assumed to be of use in identification of critical issues and success in improving county government financial recording.

1.15 Definition of Operation Terms

Adoption: This is the act or process of beginning to use something new or different activity from what you have been doing before (Lai, 2017).

Budgeting Process Automation This is the procedure of involving technology in financial planning where by project costing, project identification and resource allocation are done (Mohamed, 2017).

Budgeting: This is the process of estimating the revenues to be collected within a specific period of the year and the estimated application of the revenue (Paramasivani, 2015).

Cash management automation this is a process of collecting and managing cash using technology in an organization for, as well as using it for short-term or long term organization activities which includes investing (Kenton, 2017).

Efficiency: It is use of time, effort and resources for a specific purpose in production of predetermined result using minimal cost possible (Cosma, 2015).

E-government: The process of the government being able to offer its citizens services on-line for example through the internet or mobile phones (Tatnall & Burgess, 2009).

Financial management this is an activity of financial resource mobilization, planning for the resource and a prudent application of the resource raised (Ashkul, 2016).

ICT: this is any mode of passing information through use of electronically designed channels like mobile phones, television broadcasting or computers (Watkins & Dorotinsky, 2010).

Management: function that coordinates human resource and capital in accomplishing predetermined objectives using the resources in an efficient and effective (Paramasivani, 2015).

Procurement process automation this refers to an online platform which enables a interaction between the procuring entity and the supplier to negotiate and transact without a physical touch (Njru, 2017).

Revenue collection Automation: is a new form of paying for taxes and service charge in government through use of modern technology where cash handling is brought at a minimal level or completely abolished (Fundi, 2014).

Service delivery: it is an interaction between the service users and service providers with agreed standards that guides the operation constraints. (Tsohou & Lee, 2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter reviews the existing theories that were used in similar studies relating to Information Communication Technology (ICT) adoption in enhancing financial management. All the variables in relation to conceptual framework and literature review for the study have also been analyzed looking into similar studies that have added knowledge to area of study. The chapter start by looking at all the independent variables in relation to financial management linking the current study with past studies and unearthing the gaps that need to filled by the current and subsequent studies.

2.2 ICT adoption and public financial management

According to Njonde & Kimanzi (2014), Public Financial Management (PFM) focuses on the management of public resources as per the budget guidelines process for and improved public accountability. Effective management of public resources means that the management will take into account the available resources and the impact they have on the society if well managed (Njoroge & Wanyoike, 2016).

ICT has been recognition as policy and resource allocation processes that will make positive changes organizations financial management and depart from the traditional forms that has brought outright mismanagement of public resources (Institute of Certified Public Accountant Kenya (ICPAK), 2014). Indeed, Information and Communications Technology (ICT) is a rapid advance form by which information is being processed, communications conducted, and the manners in which service are provided (Gyaase, Anokye-sarfo & Bediako, 2013).

ICT as used in financial management combines accounting principles and concepts to offer support and reporting of information in relation to systems used in analysing financial records and transactions, generating of financial statements and accounting data relevant to financial managers (Cosma, 2015). In the process of establishing this fact, many studies have been done regarding adoption of ICT in financial management both locally and internationally and some of these studies have been discussed below.

According to a study by World Bank (2018) to assess the effect of e-government using member countries where the institution had done projects of automation basing on a previous study of 1998. The study aimed at developing a framework to identify critical stakeholders, the impact of the exercise and the method of measuring the variables. The value as perceived by the clients was measured based on two variables; the cost of acquiring the service by the client and the rating of the service by the client. From the findings of the study, there was an affirmation that a substantial improvement has been achieved since the systems adopted the use of ICT in service delivery for the developing countries. There was a variation across all the projects that were undertaken, these variations means there is a need to make more investment in improving and reforming process for e-government.

According to David (2016) on the study assessing the effect of government automation and public expenditure absorption in France using a case of World Bank funded project. The study used a framework that identified critical stakeholders' impact measured on the user perception. It was established that there were tentative affirmation that through the automation of operations in public expenditure an improvement on accountability is evident.

Listyarini, Ratnaningsih and Yuliana (2016) did a study to explore the perception of participants on the benefit of using ICT on financial management in public universities in the republic of South Korea. The information was gathered from 5 related institutions to evaluate

this adoption since the year 2010. The data was gathered using questionnaires and according to the findings of the survey, from those who participated in the study they mostly agreed that the perception of the stakeholders is positive towards the use of ICT. This is backed by the fact that respondents appreciated the improvement on skills as a result of ICT introduction. From the users of the systems themselves, they had a good knowledge on use of ICT on the management of the public entities compared to the stakeholders who do not engage with the systems directly.

However the fact that ICT had a positive impact on financial management of the public university was not disputed but the study failed to indicate how this improvement is related to specific variables. The study only point out a general improvement on financial management but in the current study, the financial management will be measured on three perspectives of automation which are revenue collection, budgeting and procurements.

According to Aminatu (2015) who did a study on how ICT has affected financial record management a case study from Ghana it was established that the implementation as a whole was a failure in the countries due to some factors like poor capacity of the users. The study was looking at ICT impact by considering the qualitative and quantitative available data. The study used a regression analysis on data which had been accumulated by the ministry concerned for finance and economic for 10 year. The study noted that despite adoption of Government Integrated Financial Management Information System (GIFMIS), the contribution of the sectors to the economy, resource allocation in the economy in Ghana, evaluation of economic growth in general and the expansion of gross domestic product (GDP) was not uniform.

Some sector had immense contribution while others had a dismal contribution towards the whole economy. It was observed that the Ghanaian government lacked the adequate human

resources needed to fully implement the ICT rollout in the country due to inadequate skilled labour. The institutions that were tasked with implementation were also too weak due to unclear policy guidelines on ICT implementation in relation to sector contribution to the economy.

The study by Aminatu (2015) did not inform the reader how ICT will enhance economic productivity by analyzing all the subsystems expected to propel the transformation being engineered through the new information system. As noted by Karori, Muturi, and Abuga, (2016), every system change in the organization must have a measurable variables to guide the users and system auditors in assessing its success and failures. By measuring individual variables for revenue collection, budgeting and procurement, it will be easier to note the areas where use of ICT is contributing to improvement in financial management and where there is a need to improve.

The Kenyan Government in particular has been reforming since the 90's when foreign donors withdrew from the country citing poor financial management in the country (Institute of Certified Public Accountant Kenya (ICPAK), 2014). The existing inadequate and outdated systems led to the introduction of modern financial management tools like the integrated financial management systems (IFMIS) which was championed in late 1990 and early 2000 to connect different functions and entities within a shared database, providing a management tool to aid in planning, management and control of public expenditures and resources (Treasury, 2015).

The automation of financial management has improved transparency of public sector operations, enhanced expedition of many transactions on real-time basis and improved expenditure management procedures, data compilation using various sources which as a result has improved financial reporting (Cherotich & Bichanga, 2016). It is therefore fair to

say that this core purpose and objective of PFM cannot be achieved with the current systems as they are. This is because the systems do not provide the necessary management tools for automation but a critical analysis can reveal many factors that influence the financial management aspect of the organization.

2.3 The budgeting process automation and financial management

Budgeting is defined as a process of setting out a plan on how to raise funds within a certain period and how the same will be spent (Nyakarura, Mutuma & Ireri, 2016). A budget therefore is the plan outlining clearly the source of funds, how much will be available for the period and how the funds will be utilized. Through this prior planning, it is possible to tell whether there will be enough funds to undertake the various projects through a critical balance between the incomes and expenditures.

Creating an expenditure plan for Government's operation allows a clear determination of whether there is enough money to undertake a project or an assignment (Nkeobuna & Ugoani, 2017). In government, budgeting is regarded as annual financial estimates proposing how the government intends to raise revenue and expenditures for the same period which is prepared by the ministry for finance and presented to the nation with the approval of the national assembly (Nyakarura et al., 2016).

The budget making process in Kenya is guided by the constitution of Kenya 2010 chapter 12. The national budget is handled by the national treasury and approved by the national assembly while the county budget is handled by the county executive member for finance and approved by the county assembly (PFM Act 2012). Section 35 of the act requires that the budget of the executive and the assembly be prepared separately in the case of the county government while in the national government, the budget is between the executive, national assembly and the judiciary which are done separately. Once the budget is prepared, it is

presented in parliament in form of appropriation bill for approval by 30th June each year before the financial year commences (PFM Act 2012).

The common practice employed in Government regarding expenditures control all over the world is a cash bases accounting where revenue collections are projected and the application of those revenue budgeted for a certain period (Kemboi & Muturi, 2017). This in other words means that the government does not spend what it has not received or anticipated future earnings. The budgeting exercise indicates all the anticipated revenue receipts and the total expenditure without any motive of making profit (Kemboi & Muturi, 2017). A popular module known as Medium Term Expenditure Framework (MTEF) is mostly adopted in budgeting process by any government which covers a specific period. In Kenya, the government uses this formulae as well when formulating its budget for the ministries and county government (Nyakarura et al., 2016) .

World Bank (2018) conducted a study to evaluate an alternative to PFM in Thailand public sector evaluating the success of new budgetary concept that had been implemented by the government with the aim of attaining budgeting automation by World Bank. According to this study the government was trying to have the budget be executed through Government Fiscal Management Information System (GFMS) and decentralized according to units in government. The idea was to introduce a program based budgeting which was a totally new concept in government which aligns the operation with their constitution. The government intended to establish an e-government where budgeting will be done on a real time basis and reporting on spending.

According to the committee that was set up to oversee the implementation process, the adoption of the technology system could have a clear accountability in the public sector based on devolution of budget control, use of medium-term expenditure framework, establish a

concern on the outputs and ease the exercise of monitoring and evaluation on performance indicators. According to this study the main focus was only on budgeting automation and not any other aspect of public financial management. The study failed to capture other areas despite the fact that budgeting will require good guidelines on how to raise finances to fund the budget and also financial disciplines are required in the execution of the budget.

Mugambi, Fridah and Theuri (2014) investigated challenges faced by county government in Kenya while preparing their budget. The study found that lack of an integrated system in budgeting is contributing to noncompliance with the guideline issued by the office of controller of budget. It was noted that many of the county government were using spreadsheets like excel and later uploading their data to IFMIS which is a tedious and an error prone exercise.

According to Mugambi, Frinda and Theuri (2014) this mode of budget preparation was in detriment to the government desire of achieving a full integration of financial management. Although the study concludes that the county treasuries were observing the government guidelines issued in PFM act, it was observed that this is not satisfactory because only the budget making process was under automation consideration without full integration with revenue collection and expenditure controls.

Musee (2011) did a study which was evaluating factors affecting implementation of ICT in government and respective ministries in the republic of Kenya with a target of 42 Government Ministries that were implementing use of ICT in matters of finance. From this study, it was established that the main area where management is much involved in ICT implementation in financial processes in regard to budgeting an improvement on formulation of budget, provision of timely information, clear itemization of program based budgeting to an internal controls during execution of the budget has been evidenced.

As a result there were poor budgetary allocations or the allocations were being altered to meet the wishes of the management. This shows that whenever ICT is adopted in budgeting, the expected outcomes are likely to meet the expected standards. It was established that automating the financial management will directly include automation of budgeting process hence having an improved budget formulation and execution for prompt and sound decision making (Onuorah & Chi-chi, 2012). However, since the study centered mostly on effectiveness of ICT implementation and the factors that affect its implementation, there is a gap on how the implementation will affect revenue collections, budget making and execution and the expenditure controls. This study was exploring the relationship between the implementations and the effects on those parameters.

Chado (2015) studied the effects of financial management automation through use of IFMIS in Kenya where he adopted descriptive survey targeting a total population of 18 Ministries drawn from the national government. The primary and secondary data were collected by use of structured and unstructured questionnaires. It was concluded from this study that ICT adoption in cash management, budgeting, financial reporting and internal control systems, is a positive contributor to effective management and a sound record management in public sector. The researcher posits that the biggest challenges faced by the state while implementing budget process transformation can be traced to the failure of involving the relevant budget data managers, financial management professionals, managers in charge of projects, and all personnel manning the ICT sector in the government. From this study there were no tests that were done on other factors that affect budget processes like the revenue and expenditure controls.

Njeru (2017) studied factors affecting IFMIS implementation in the County governments in Kenya where it was established that there were gaps in the county government resource

management due to their failure to adopt a working strategic plan. The absence of a strategic plan means that there is no structured change, a structure to aid in human capacity development for the ever changing technology and government failure to sensitize and fully accommodate the new developments. This disconnect is an impediment to any effort put in place to transform budgeting process exposing all the weakness in documentation to an ultimate automation of the entire budgeting process. Automation of financial services has significantly impacted on the internal control systems put in place especially to strengthen accountability and transparency in the public sector financial management.

According to Kirimi (2015), automation is a way of achieving fiscal discipline and offers a better tool for public financial management. It is through this automation of financial services that credibility and transparency of the budget is enhanced by detailing all information relating to management of finances. The main purpose of adopting ICT use in financial management is to facilitate budget making and budget execution through provision of useful information and accurate when it comes to decision-making (Thuo, 2016).

A clear budget making process enhances control over budget management which can be well done through a fully integrated accounting process. However, a criticism is drawn from this study due its failure to show the specific advantages of adopting ICT.

2.4 Influence of Revenue collection automation and financial management

Revenue has been defined as any income or money generated from the business operations for a given period of time (Agarwal, 2017). For non-profits making organizations which rely on donations or member's contributions, revenue is often referred to as gross receipts from donors or members contributions. From the government perspective revenue is normally raised through taxation, service fees, fine imposed on offenders and grants from other development organizations or any sale made for the purpose of raising funds (Dohner & Intal, 1989).

Revenue collection can be referred to as the process or the act of formulating, designing recording and presenting of all amount collected from various sources of the government being internal and external sources like those raised through foreign aids, international markets, and net of trade from government agencies (Catherine, 2017). County governments despite being part of the governments, their mandate on revenue collection is limited by the Kenyan constitution which gives them mandates only to impose property taxes, entertainment, fees on services rendered and any other as may be allowed by the act of parliament (Gok, 2010).

This means that county government cannot impose personal taxes, value added tax (VAT) or exercise duty as that is the mandate of the national government. The areas to be covered by this study on revenue automation are on rents and rates, licence fees and business permits, parking fees, service charge and any other fees as may be prescribed by the county laws (Sagala, 2015).

County governments operations in Kenya before the directive by the national that they automate introduction of automated systems of collecting revenue which was aided by the revenue allocation commission, CG were using manual systems to collect revenue through use of receipts and manual record (National Treasury, 2017). The exercise was all characterized by high administration cost issues of fraud by employees, underpayment, receipt duplication and all forms of revenue leakages used to happen according to a report by the national treasury. These shortcomings have necessitated the county government and the nation treasury to team up by establishing the best way in curbing loss of public funds. To achieve this common goal it was necessary for the government to automate its services by use of modern ICT systems that will ease revenue collection and seal the gap which allowed for

the loss of funds. This study will assess all the efforts put in place by the county government of Meru to automate revenue collection.

Moore (2015) did a research to establish the role of ICT when dealing with revenue administration in Turkey which revealed a positive contribution by ICT adoption. This positive effect was evidence by the automated systems that were introduced which led to reduction in tax administration cost and as a result efficiency was realized. This was an improvement from the previous manual system characterized by costly human resource that was needed to administer tax activities and the many challenges like the manipulation by the workers of the government. Unlike this study, the proposed study will evaluate the efficiencies of tax collection automation and utilization of the tax collected through expenditure controls.

The two primary revenue collections according to Sagala (2015) are categorized as either manual or use of ICT aided systems. Automation of revenue collection is regarded as the most comprehensive for tax, rates and fees charged by municipals. This system is a encouragement of cashless systems or use of direct banking by the recipient of the service (Sagala, 2015).

Automation of revenue collection a way form of paying for taxes and service charge in government through use of modern technology where cash handling is brought at a minimal level or completely abolished (Fundi, 2014). The automation started with tax remittance without making physical visits to the tax authorities. This system is an electronic application mode by government with the aim of using it all over in government sector. World Bank (2018) conducted a study to analyse the alternative path used by the government of Cambodia to improve on revenue collection. The study was specifically looking at the alternative system being used rather than the manual system that was used initially; the study targeted the body

tasked with revenues collection strategy setting and system implementation. This means that the only factor that was under evaluation was the revenue authority of Cambodia without giving an insight to the reader what happens with the revenue once it is collected.

The methodology of data collection mostly was targeting the top management who were only concerned with the policy formulation but the system users were mostly overlooked by the researcher while the achievement of self-sustainability found that system change through use of modern technology was the backbone of the success achieved. There has been a major reform in revenue collection and administration PFM. These reforms were targeting an establishment of a legal framework to back any changes, formation of partnership with financial service providers in providing the platform which was targeting a cash surplus in institutions (World Bank, 2010).

The establishment of county governments in Kenya as decentralized units of government meant that some functions which were being done by the national government were transferred to the devolved units (Mulwa, 2015). These functions included the right to impose taxes and other levies like the property tax but with limitations. According to the PFM Act 2012, all revenue being raised by the county governments are not supposed to be spent at source but rather be deposited to the county revenue fund. This pooling together of the revenue was done as a measure to bring more accountability and avoid misuse of revenue being raised (Mulwa, 2015).

The national treasury had to provide guidelines of the management of revenue and one of the policy guideline was to automate revenue collection. County governments were given authority to use Kenya revenue authority, contract a private entity or develop a mode of revenue collection on their own. The steps that were anticipated to improve revenue collection were made but the result were not pleasing as some county government failed to

match what the defunctal local authorities used to collect (National Treasury, 2017). Various studies have revealed the weaknesses being witnessed during revenue collection by the CG and the challenge of integrating it to the IFMIS platform.

According to a study by Karimi, Maina and Kinyua (2017) which assed the effect of ICT systems on revenue management in the County Government of Embu revealed the importance of ICT on revenue collection. The study used purposeful sampling by selecting a total of 102 officers of the county government of Embu specifically concerned with finance matters and procurement. From the findings, it was observed that that use of ICT was incorporated in revenue management making the process more efficient and effective. The mean that by click of a button it was easy to tell how much has been collected. This is an improvement on revenue collection.

Kirmani, Wani and Saif (2015) did a survey of 175 government agencies in Kenya to assess the how information systems are contributing to effective financial management. The research established that the systems that were in place i most of the agencies, had a positive results when based on proper management of revenue sources in agencies. This was an evidence that any weak administration regarding management of government revenue resulted into underperformance in revenue collection (Oduor, Sevilla, Wanyoike, & Mutua, 2016).

It can be contended that the administration of revenue collection is mostly weak in respect to data compilation, manual based systems and improper enforcement of laws (Dohner & Intal, 1989). Kemboi and Muturi (2017) studied the effect of automation of financial management services in Trans-Nzoia County. The study utilized staff involved in financial management at the county government. It established that ICT has positively influenced financial management of Trans-Nzoia County Government. The study revealed that there was

efficiency in revenue collection, timely remittance and ease to access financial data. However this study can be criticized due to its failure to cement the broad element of financial management which involves expenditure control and integrated report generation.

According to National Treasury (2017) many counties have not managed to automate the revenue collection and for those who have automated, it will not be possible to use the IFMIS directly because of the many users that are involved. There has been a spirited effort by the national government to have a standard revenue collection system across the 47 Counties which did not yield the expected result. For an effective revenue management to be realised, stakeholders have expressed the need to integrate the systems used for revenue collection. However, the systems being used currently have many challenges like the fact that IFMIS is designed for cash based operations which is not the case with the revenue collection (National Treasury, 2017). It is in this regard that this study intended to evaluate the whole process of revenue automation not specifically basing on IFMIS alone.

2.5 Procurement automation and financial management

Procurement has been defined as any act used by an organization to acquire goods and services at a consideration (Otieno et al., 2013). According to the (National Assembly Kenya, 2015), procurement is an acquisition by either means of purchasing, leasing, hire purchase or through any other form of contractual agreement of goods, assets or services in a supply chain system. The main aim why organization embark of procurement is to get value for money, quality items and a timely delivery of goods and services (Njru, 2017).

Procurement automation provides an online platform which enables an interaction between the procuring entity and the supplier to negotiate and transact without a physical touch. In this study, the review of the online players will be between the government as the procuring entity and those offering goods and services to the government where online request for quotations,

tender advertisement and bids are done (Njeru, 2017). The adoption of a modern public procurement system through automation has for a great extent improved procurement process in organizations by creating a less costly exercise through reduced paperwork and human labour involved (Weeks, 2016).

However, in public procurement the exercise has been characterized by vested interests resulting in delays through courts battles and malpractices which lead to loss of public funds. To reduce all these poor and inefficiencies in the public procurement, the public institutions have been urged to automate the exercise by adopting E-procurement (Kenya Government and Government of Denmark, 2014). If this automation is well done, anomalies that are prone to the exercise will be eliminated and good governance in the public procurement and expenditure will be promoted. Implementing IFMIS in the public procurement sector is a demanding exercise due to the many processes that are involved, beginning with the equipment that are used to the real exercise (Kirmani et al., 2015).

According to GOK (2014) IFMIS automates all financial activities, where in procurement starts with raising of requisitions from the consuming department all the way to the delivery of good acquired and payment of the same. It provides a portal for all suppliers where they can check on the available tenders and do the tendering online eliminating any intermediary. This promotes transparency, reduction in the cost of procuring and results to an overall performance improvement.

According to Lundu and Shale (2015), public procurement should go online in an effort to promote transparency, participation, public accountability and ease of accessing information through an open system. This is one way of removing the conventional methods and practices such as the use of postage which eventually makes the process faster. This acts as a benefit to the organization by being more competitive and able to achieve a faster growth compared to

the competitors in the market. To get the real status of benefits associated with adoption of ICT in procurement, many studies have been done and this study will review some of them as indicated below.

Chien and Wu (2016) did a Turkey-based study on success factors of e-procurement in public health centres financial management. The researchers established that though email, electronic funds and online tendering was being adopted, the real result of better public financial management was far to be achieved. According to the researcher, this was the case because of the many aspects involved in achieving effective public financial management. The research posits that the use of ICT in public financial management has positive factors because goods needed in the hospital could be easily delivered in time and at a minimal cost. This study could have done more by looking at all these factors surrounding effective financial management.

Weeks (2016) studied the effects of system integration and the motive of the participant on value addition regarding E-Procurement in Taiwan. The study was exploring the benefit of e-procurement based on the participant perspective on their cash flow effect. It was observed that although cash-flow service does not display a significant effect as a result of e-procurement, the flow of information and service is presenting a positive effect. This positive effect of e-procurement could be confirmed by how cost associated with buying and selling by the participants contended to have hit the lowest anticipated point.

Gyaase, Anokye-sarfo, and Bediako (2014) did a study to assess benefits of adopting ICT in financial report preparation and returns submission in the Ghana Education Service. The study identified the challenges faced by finance officers while preparing financial return with an aim of suggesting solutions in perception to ICT. According to the researcher in this study, it was found that adoption of ICT utilization in the public sector is one way of enhancing

productivity; maintain accuracy, prompt in data generation, and a timely delivery of financial returns. To the users of ICT, the study postulates that workers are able to acquire advanced knowledge in ICT use hence creating a more beneficial factor to the organization. However, according to the study, it was observed that some external variables which were observed to exist behind the individual adoption and use of technology, if well studied could provide a clear note on the benefit of adopting ICT.

Njeru (2016) assessed the implementation of integrated financial management information system while achieving an effective management practices in Nairobi and Lamu Counties. It was established that IFMIS has played a bigger role in achieving this goal. The study selected a sample of 238 personnel from the two counties using purposive and random stratified sampling method.

It was observed that implementation of automated procurement process has enhanced effectiveness on management of the devolved government finances through openness and timely procurement. However, the study did not focus on relationship between procurement automation and prudent financial management. The researcher concentrated on the service delivery without exploring the situation when the cost of offering the service is at a reasonable cost due to operation automation. Moreover, the e-procurement evaluated in this study did not examine its effects on resource utilization in the county government, the cost savings being realized, optimal staff utilization and the financial performance both in reporting and social accountability.

2.6 Cash management automation and financial management

Cash management is defined as the process of collecting and managing cash in an organization for, as well as using it for short-term or long term organization activities which includes investing (Kenton, 2017). Cash management involves among other things

insolvency avoidance in the organization, account receivable and payable management, working capital management and long term commitment as they fall due (Abubakar, 2013). A Successful cash management exercise in any institution is essential due to difficulties that come with accessing credits whenever an organization is facing liquidity constrains (Kenton, 2017). In the public sector, cash management is a task which always has to be viewed in a serious angle otherwise even the worker may go without sallies due to the nature of cash accounting (World Bank, 2018). The accounting model used in the public sector, to a certain extent helps in managing the issue to deal with cash management since most of the levies are paid at the end of the period they are consumed.

Pessoa and Williams (2013) did a study on relationship between treasuries and central bank in the world in relation with cash management for all the countries that were sampled. The main focus of this study was to evaluated different models adopted by the various countries to manage their cash deposited with respective central banks. It was observed that each country was adopting a different approach though the policies were all the same. From this study, concluded that from every county a need to automate the cash management was of important through use of treasury single account maintained at central bank. This relates so well with the challenges posed by (United Nation, 2016) on ICT index in the world that revealed ICT play a big role in local economic development in various countries in the world, but face a number of challenges which include, users acceptability, financial resources to fully automate their activities and inadequate staffing.

Prebula (2016) did a study that focused on pointing the risks involved in implementing the integrated cash management in state of Alaska in United States of America in order to develop guidelines that make minimizes cash loss and overcharging by collecting agents. The reviewed theories used in the study to answer the research question focused on cash

management automation. The study found that the integration of cash management through awarding of incentives was yielding positive benefits although with risk factor involved. However, critical success factors were able to be identified as motivating the agents that are involved in the process for the purpose of achieving the targets.

According to Africa Development Bank (2018) study that sought the supportive factor of IT use in financial management, it was established that IT infrastructure offers a supportive role in achieving financial accountability in Africa. Study dwelt mostly on IT use using the theory of technological acceptance model as the guiding theory and collected its data from 8 countries in Africa.

It was established that countries that were yet to embrace use of information technology fully, they were relying on manual file based information storage which could neither be safe nor, reliable for such sensitive data. The study further revealed that various countries in Africa are still experiencing challenges while executing their duties because ICT facilities are inadequate in Government Institutions and the technical knowhow on application of ICT is still below expectation.

Nkeobuna and Ugoani (2017) conducted a study on implementation of IT in the government of Nigeria and established that most of financial transaction in the country has migrated to an integrated platform. The study was exploring the extent of ICT application on financial management in the country with a view of improving on cash management. The study found out that even though the government was using Information systems on all its cash transactions, there was a challenge to those who pay their money on daily bases. It was also established that there were gaps when it comes to the real service being offered, by a measure of the service the quality was low. The study further revealed that all other units of the government not all of were committed in utilizing Information Systems and ICT in carrying

out their operations as some were found not basing their decision making on ICT based records despite their availability.

Mugambi (2018) conducted a study to explore the effect of implementation of information system on financial management in Kenya. This study revealed that there were various systems in use especially in county government where a combination of IFMIS and LAIFORM are being used to manage financial matters. From the respondents who were interviewed, there was a general agreement that positive financial controls with the influence of ICT have been achieved.

From the study it was established that adoption of ICT is one way the county is able establish tighter financial control and measures within Meru county government. However there were inherent challenges facing the implementation of ICT which the Government is addressing up to the point of the study like funding.

2.7 Theoretical framework

This section presents the theories as evaluated by various scholars on ICT adoption in institution and the incorporation of ICT use in the financial management in the public sector in Kenya. Information Technology adoption has been explained using various theories according to the scholars who have dealt with this field. Some of these theories include the theory of diffusion of innovation (Rogers, 1995) in (Sahin, 2006), systems theory (Chikere & Nwoka, 2014), the theory of reasoned action (Ajzen & Fishbein, 2012) the theory of planned behavior (Ajzen, 1991) and the technology acceptance model (Chuttur, 2009).

Manueli, Latu, and Koh (2003) posit that in explaining technology adoption model there are three approaches with a sound theoretical bases to study adoption. These approaches first must explain the understanding of the system, evaluation of the innovation and an understanding of how the system accepted the new system. In that connection, this study used

the three theories; diffusion of innovation, systems theory and the technology acceptance model.

2.8 Diffusion of Innovations (DOI) Theory

This theory was developed by Rogers in 1962 having two stages that explained how the innovation diffuses from the point of development to the users (Rogers, 1962). According to Rogers, (1962), the theory has an aspect of how, why and the rate at which new ideas related to ICT are adopted in an organization. The DOI is an established theory with four main elements that were identified by Rodgers as; innovation, communication channel, time and the social channel. According to (Sahin, 2006), the user of information must perceive the innovation as new and then be influenced by: Complexity of the system, compatibility with other existing systems, trial-ability, observations and the relative advantage when compared with others.

Rogers (1962) posits that under relative advantage, it is how the new technology will create some prestige to the organization and add economic profitability in order to be competitive. As a service providing institution, there is a need to evaluate the return on investment to ease the need to invest where there are no benefits. The ability to try out a new technology by making minimal investment on the technology and lowest investment is what Rogers referred to as triability. The prospect of adapting to new technology all depends on the effort asserted on trying the technology, the lesser the investment the easier it is to adopt.

Therefore to demonstrate how the new technology was beneficial to the organization and the users, it was measured on customer satisfaction and improvement on service provision. The observability according to Rogers (1962) involves witnessing how the technology is working after its installation and thereafter acknowledging the benefits of the technology. The achievement made by the technology can be manifested through reduction in resistance to

change when it comes to system implementation. Whenever the system being implemented portrays signs of success, with positive results and a perfectly functioning system, there is a likelihood that adoption will succeed (Mutshewa, 2007). The users of the systems will ensure there is successful implementation of this technology, and observable results.

The major part of this theory of diffusion by Rogers (1995) is the definition involving the four elements as explained. To begin with, is the Innovation which was described as being an idea or an object alleged as new by the adopters. This is where the awareness about the need of the new innovation to be accommodated in the public financial management starts. After the awareness the workers and the management get to the next level of making a decision of either to adopt the new innovation or to reject the innovation. With this in mind in the management engages all the participants in order to make a informed decision. Once a decision is made, the initial part of using the innovation commenced and it is successful there was a continuous use. This theory is in support of the first research objective which tries to examine the effect of budgeting process automation on financial management in Meru County.

2.9 Systems theory

Ludwig Von Bertalanffy in 1923 developed a theory known System theory was originally developed by biologist (Chikere & Nwoka, 2014). Ludwig (1989) asserts that a system is any interrelated and interdependent organization or simply an element with various parts but functioning together. This is to mean that the County Government of Meru is a system with many interdependent units that work together to achieve a common goal. All the departments that constitute the MCG, though they have a clear mandate and set structures they have to work together for excellence in service delivery. The subsystems making up the whole

system can simply be regarded as semi-autonomous because they cannot work alone without the involvement of other subsystems.

A system can either be controlled or uncontrolled. In a controlled system, information is sensed and changes are effected in response to the information, Mele et al. (2010) refers to these type of information as the detector and effect or functions of the system. For instance information relating to review of rates as contained in a finance bill prepared by the County Treasury, resulted in changes in response to that particular information, this is referred to as the effect or function of information. The detector function of information deals with passing of the relevant information between systems. This information can be enhanced by use of emails, chat rooms, e-conferencing, etc. According to this theory, factionalism approach is viewed as the best way of evaluating the role of every subsystem in a system. This idea was used to examine the role of the departments as a subsystem in the County Government being the larger System (Njru, 2017).

There seem to exist various criticisms on this theory According to this study, many of the system dynamic applications, are either wrong or being modelled to fit the problem. As a result the feedback structure had an exogenous influence on the system. This theory is in support of the third and fourth objectives. That is assessing the effect of procurement process automation on financial management in Meru County and to assess the effect of cash management automation on financial management in Meru County.

2.10 Technology Acceptance Model (TAM)

This theory of Technology Acceptance model originally was brought out by Davis in 1989 as an information systems theory modelling how individuals accept the use of a technology (Davis, 1985). This model by Davis suggests that when a new technology is presented to the users, some factors influencing the decision of the users on adopting the technology based on

perceived use and perceived usefulness. The level at how users believes that use of a specific system will improve a work performance is regarded as the perceived usefulness while the degree of believing that use made the work easier is known as the ease-of-use.

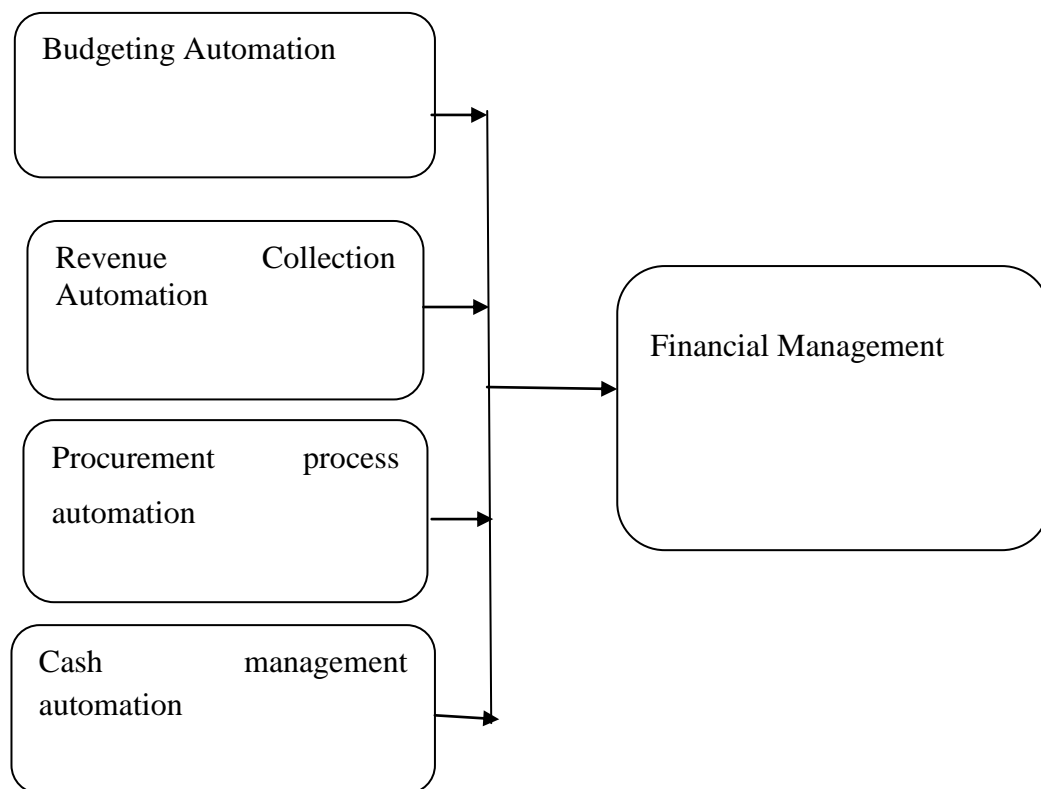
Technology Acceptance Model (TAM) is a model used to explain how technology is accepted by the users according to Davis (1989) in (Gyaase et al., 2013). The model is used to when explaining the relationships between the external variables, the intended usefulness, ease of use, he approach toward using and the actual usage behaviour. TAM is an informative representation of how a predetermined choices and other inter-related factors that influence user acceptance and usage behaviour. TAM is noted to have been developed specifically with an aim of understanding how information technology is accepted and used at the workplace. It simply explains how a new technology is accepted by the users when it is introduced and when they used it. These many factors determining the users of a new technology perceived the new technology. For incorporation in our study, this is a theoretical framework depicting a relationship between users' acceptance of a new information system and the perceptions of using the information in public finance management. Those who perceive the new technology as easy to adopt had a simple ride in using the new system compared to those who perceived it as difficult to use. A critical evaluation shows that TAM did little to focus on the social influence on adoption of technology, some usage limitations exist while in its application outside the work place (Gyaase et al., 2013).

Gefen, & Larsen, (2017) posits that even though some of the variable in this model are regarded as external variables, there is a need to add them to TAM in order to provide more consistent prediction regarding the system. They further argue that some of the intrinsic motivations are left out in application of. The use of online revenue collection and online tendering is a new technology which ought to be accepted by the users and perceive it as an

easy way of doing what they are doing. This theory is in support of the second objective to examine the effect of revenue collection automation on financial management in Meru County.

2.11 Conceptual framework

A conceptual framework is a structure believed to be the best way to explain the natural progression of the phenomenon that the researcher wants to study (Adom, Hussein, & Joe, 2018). It links the general idea with the concepts, empirical research and theories used to expound the study (Adom et al., 2018). It is an explanation by the researcher of how the research problem would be explored. It can also be viewed from the statistical perspective as a relationship between the independent and dependent variables. It is arranged diagrammatically representing the independent and dependent variables to aid the researcher in developing an awareness of the status under study. Conceptual framework simplifies the understanding of the relationship between the two variables as indicated by the diagram below.



Independent Variables

Dependent Variables

Figure 2.1 Conceptual framework

Figure 2.1, verbalizes the interaction among variables as used in the study.

The summary of the objectives are normally indicated in the Conceptual framework the diagrammatical representation represents issues that are in the study and forms a consistent foundation that will support the naming of existing variables (Kothari 2004). From this study the following variables are summarized in the conceptual framework; Budgeting Automation, Revenue Collection Automation, Procurement process automation, Cash management automation variable, the dependent variables was the Financial Management.

Table 2. 1

Operational frameworks

Variable	Indicators	
Dependent Variable	Financial Management	<ul style="list-style-type: none"> - Financial reporting - Funds mobilization - Auto reconciliation - Effective financial planning - Quick in decision making - Accountability - Transparency
Independent Variable	Budgeting Automation	<ul style="list-style-type: none"> - Paperless budget - Auto reconciliation of budgets with actual
	Revenue Collection Automation	<ul style="list-style-type: none"> - Real time revenue updates - Auto reconciliation of revenue collection - Online revenue collection monitoring
	Procurement process automation	<ul style="list-style-type: none"> - Online tendering advertisements - Online tendering for goods and services - Online tender evaluations and - Online payment for goods and services
	Cash management automation	<ul style="list-style-type: none"> - Cashless payments - Online cash recording and reconciliation - Online bank balances monitoring - Cashless cash collections

Source: (Researcher, 2018)

2.13 Summary of Literature Review and the Research Gaps

Theoretically, there is a research gap in the field of s ICT adoption and financial management. There are numerous contradictory statements within the existing knowledge of financial management. There are also numerous untested hypotheses, models, propositions and concepts within theories that consider ICT adoption and that are not necessarily related to financial management.

Also, studies that actually investigate ICT adoption in relation to effect on financial management are relatively rare and do not find clear relations between these effect and financial management for example. David (2016) conducted a study to where the main aim was to assess the effect of government services automation and public expenditure absorption in France using a case of World Bank funded project. The study used a framework that identified critical stakeholders' impact measured on the user perception. It was established that there were tentative affirmation that through the automation of operations in public expenditure an improvement on accountability is evident. This study can be criticized that it looked at effect of government automation and public expenditure absorption in France using a case of World Bank funded project were in developed country France while the current study was on to find out if ICT adoption has a significant effect on financial management in Meru County Government.

Aminatu (2015) did a study on the impact of ICT a case study from Ghana and established that the implementation as a whole was a failure in the countries due to some factors like poor capacity of the users. The study was looking at the impact of ICT on public sector expenditure by considering the qualitative and quantitative data. Regression analysis was used on data which had been accumulated by the ministry of finance and economic development for 10 year. The study noted that despite adoption of Government Integrated

Financial Management Information System (GIFMIS), the contribution of the sectors to the economy, resource allocation in the economy in Ghana, evaluation of economic growth in general and the expansion of gross domestic product (GDP)) was not uniform. The study can be criticized on basis that it looked at the impact of ICT in a case study from Ghana which is not in Kenya while the current study was to find out if ICT adoption has a significant effect on financial management in Meru County Government.

Listyarini, Ratnaningsih and Yuliana (2016) did a study to explore the awareness of stakeholders on the benefit of using ICT on financial management in public universities in the republic of South Korea. The information was gathered from five related institutions to evaluate this adoption since the year 2010. The data was gathered using questionnaires and according to the findings of the survey, the general agreement from the respondents was that the observation of the stakeholders is positive towards the use of ICT. However this study has received critics who consider that it was done to explore the perception of stakeholders on the benefit of using ICT on financial management in public universities in the republic of South Korea which is miles away from Kenya and it was also done on public universities while the current study was done to find out if ICT adoption has any effect on financial management in Meru County Government.

Most studies on the ICT adoption on financial management were done mainly in a limited number of developed countries. Most of these studies have been undertaken to analyze effect of government automation, the perception of stakeholders on the benefit of using ICT on financial management but few studies have tried to analyze the ICT adoption and its effect on financial management.

2.14 Chapter Summary

The chapter has highlighted a review on the literature, theoretical review where by three theories were adopted being technological acceptance model, diffusion of innovation theory and systems theory. The study was based on three theories that include diffusion of innovation theory, this theory was used to help understand how new innovations are perceived by the users of systems and their acceptance to established systems. The conceptual framework showed how the concept under study is interrelated.

A key factor that stood out in the literature review is the challenges that face ICT implementation in financial management. Although various studies have been done, most of them are covering developed counties and mostly the challenges of implementing the ICT. It is of value to categorically state countries like Kenya which are not yet developed face unique challenges compared to already developed countries. It is also further possible to argue devolution in the country is a new idea which is still being embraced and receiving improvement every time. Due to the limited information in this field the study intended to seal the gap by reviewing the contribution made by adopting ICT in public financial management in Meru county government.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter gives an overview of the methods used in the study. In this study, areas to be covered included research design, target population, sample size and sampling techniques, research instruments, data collection procedures and methods of data analysis.

3.2 Location of the study

The study was done in Meru county government, one of the Forty Seven (47) counties of the republic of Kenya located east of Mt. Kenya. Meru county borders Isiolo County to the north, Tharaka/Nithi County to the east, Nyeri County and Laikipia County to the west side.

3.3 Research design

Descriptive survey research design study was used in this study. Survey research design is useful not only in securing information relating to a situation or current conditions but it is also used when identifying standards guideline on which to compare present conditions while planning for future (Joseph, 2013). This study aimed at studying conditions or events that have already occurred and do exist. Descriptive survey design was therefore the best for this study.

The design is also of great help when it comes to the description of the characteristics of a large population, (Uma & Bougie, 2016). This type of design allows questions in different forms to be presented to the respondents. This descriptive survey design was appropriate in determining the status of the situation under study. It was chosen because from other related studies is best approach to social scientists for collecting primary data that describes a population which cannot be observed. It was therefore appropriate in collecting data regarding opinions, perceptions and experiences the management staffs working in the

government of Meru County. The study adopted the descriptive survey design since it would be suitable in investigating out if ICT adoption has affected financial management in the public sector in Kenya purposing on Meru County Government.

3.4 Target Population

According to Mugenda (2008), the total population that the researcher specifies in research is referred to as the target population. The population comprised in the study is Meru county government staff. The study targeted fifteen (15) procurement officers, six (6) budget officers, thirty six (36) accountants, twelve (12) revenue officers and one (1) chief officer in charge of finance. The selected officers are involved in daily running of the county’s financial activities and therefore provided appropriate information regarding Information Communication and Technology adoption needed in the study.

Table 3.1

Target Population

Managers	Frequency	Percentage
Procurement officers	15	21.4
Budget officers	6	8.6
Accountants	36	51.5
Revenue officers	12	17.1
Chief officer finance	1	1.4
Total	70	100.0

Source: County Government of Meru Registry, 2018

3.5 Sampling procedures and techniques

Census sampling which involves study of every unit was used as per Zembat and Turaşl (2016), to acquire information from fifteen (15) supply chain management officer six (6)

budget officers, thirty six (36) accountants, twelve (12) revenue officers and one (1) chief officer in charge of finance. The respondents were 70. It was possible to gather information from each participant.

Table 3.2

Sampling procedures and techniques

Managers	Frequency	Percentage
Procurement officers	15	21.4
Budget officers	6	8.6
Accountants	36	51.5
Revenue officers	12	17.1
Chief officer finance	1	1.4
Total	70	100.0

(Researcher, 2019)

3.6 Data collection method

A Questionnaire is one of the research instrument used to gather data from a large sample and diverse regions. Questionnaire normally is regarded as a confidential way of responding to study question with minimal biasness (Uma & Bougie, 2016). The management staff questionnaire consisted of closed ended questions. The questionnaire was organized into sections with a view of providing specific information from management staff. Part 1 sought to obtain information related to demographic characteristics of respondents; Part 2 section I addressed questions on aftermath of procurement automation on financial management, section II addresses questions on effect of revenue collection automation on financial management in Meru county government, section III addresses questions related to the effect of procurement process automation and section IV the effect of cash management automation on financial management in Meru county government.

3.7 Pilot testing

A pilot study is conducted before the actual study takes place using a small pre arranged respondents who have similar character with those to take part in the actual study. According to Ellis and Levy (2017) the main aim of conducting it is not to examine the research hypothesis, but to examine the process and here instruments, sample selection strategies, and any aspects that may make the study unsuccessful. Piloting involves testing the validity and reliability of the data collection tool and herein the questionnaire. Kothari (2009) asserts that those who will be selected for the pilot test must not come within the sample to be used for the major study.

A pilot study involving 14 selected officers working in the finance department in the neighboring Government of Tharaka Nithi County were earmarked for pilot testing to check on the consistency of the questionnaire, necessary modifications were made, before administering the questionnaire to the final respondents. Cronbach's alpha (Cronbach, 1951), was used to determine the internal consistency or average correlation between independent variables to measure their reliability. From the 14 questionnaires issued 8 were returned and the information provided was analysed. A high alpha value of above 0.7 was used to suggest that the variables had a relatively high internal reliability. The 14 selected officers formed a tenth of main sample. The pilot experiment sample was within the recommended range of 5% to 10% of the target sample should constitute the pilot test (Ng'ang'a, 2017). The intention of this study was to ascertain the soundness of the questionnaire, and if improvements were required, this was incorporated before the final questionnaire was distributed to the actual respondents.

3.8 Instruments' Validity

Before the instruments of data collection are used, there is always a need to check if they measure the purposes they were supposed to gauge. Therefore, strength of research instrument is explained as a gauge determining the degree which research instruments measure the intended purpose (Abubakar, 2013). Research instrument were given to 12 information communication and technology officers in Meru County Government. The information communication and technology officers were supposed to mark off if questionnaire was on effect of information communication technology adoption on financial management in Meru county government. The answers of ICT officers were counterchecked alongside the study objectives and ranked on a scale of 5(Strongly agree) and 1 (Strongly disagree).

In determination of soundness, a Content Validity rank was used where all items were summed up and rated between 3 and 4 by the management then the total number of questions used to divide them. Statistical Package for Social Sciences (SPSS) was used when determining coefficient. Anything above 0.75 means that the research instrument is valid (Uma & Bougie, 2016).

3.9 Reliability of the instrument

Reliability data is an indication of how the data being used is free from any errors ad able to provide consistence (Kirk & Miller, 2015). When measuring the consistency of the data collection instruments Cronbach's alpha which is an internal technique is computed through use of SPSS. The pre-testing involved questionnaires from 12 ICT staff in Meru county government.

Table 3.3

Reliability Results

Constructs	Cronbach's Alpha Values
Budgeting process automation	0.839
Revenue collection automation	0.865
Procurement automation	0.843
Cash management automation	0.888

Table 3.3 indicates that the data obtained from the test could be relied on because as off all independent variables the Cronbach's alpa values is between 0.839 to 0.888 which is higher than 0.75 satisfying Zinbarg (2005) of a high internal stability and therefore reflecting the opinion of the respondents.

3.10 Methods and procedures of data collection

An introductory letter from the university and NACOSTI permit was obtained for ease of convincing the respondents. The researcher visited Government of Meru County and made appointment with the respondents on when to administer the questionnaires.

The questionnaires distributed were picked once they are filled by respondents. To ensure response rate is high, the researcher took time to inform the respondents why the study is being conducted. The collected questionnaires were checked to make sure no errors are captured during data entry.

3.11 Data analysis techniques

This is where the data gathered after the questionnaire is arranged for comparison depending on the field of the findings. process of systematically searching and arranging field findings

for presentation (Joseph, 2013). Data is organized into categories and common trends or behaviours put together for preparation of reporting.

Descriptive and inferential statistics analysis was conducted in order to come up with patterns and make the more manageable. Regression analysis was done to show the type of the association between financial management and the independent variables. Data was analyzed using both descriptive and inferential statistics and presented using frequency and percentage tables. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 21.0. A linear regression model was developed to explain the association of the variables under study. Below is the data analysis model used:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Where;

Y = financial management

X₁ = budgeting process automation

X₂ = revenue collection automation

X₃ = procurement automation processes

X₄ = cash management automation

e_i = error term

β₀ = constant

β_i = partial regression coefficients, i=1,...,4

3.12 Diagnostic Tests for multiple regression

As stated earlier, the researcher came up with a linear multiple regression models which are shown in a linear form, the relationship between the dependent variable and the independent variables. The Likert scale responses were analyzed at the ratio measurement scale after the researcher has computed composite score from the five variables. Developing a multiple

linear regression model therefore requires the researcher to carry out the diagnostic tests such as normality test, multicollinearity test, test for heteroscedasticity and test for autocorrelation.

3.13 Ethical considerations

The main purpose of ethics in research is to ensure during the data collection period, any person involve during and after data collection is not harmed or suffers in any form as a results of making the exercise work. After the data is collected, the researcher should also be ethical in using the information gathered only for the purpose so stated and not for any other use. The researcher did this by first securing a permit to collect data from (NACOSTI) which assisted in wining confidence of the respondents.

Therefore, while approaching the respondents, an assurance was given that all the ethical behaviour was observed and any information received by the researcher was used and treated with all the confidentiality and used solely for academic purpose. The researcher ensured that the respondents are not coerced into participating in the research and giving any specific information by assuring them that any information they give is at their will. The information received was not manipulated or altered but it was reported as received while any sources cited were referenced according to American Psychological Association (APA).

CHAPTER FOUR RESULTS AND DISCUSSION

4.1 Introduction

The results included herein are on response rate, background information, budgeting process automation, revenue collection automation, procurement automation and financial management data gathered through the questionnaires.

4.2 Response Rate

Research data was collected from procurement officers, budget officers, accountants, revenue officers and chief officer in charge of finance all considered as the unit of observation and filled in the questionnaires from the Meru County Government in Kenya. Out of 70 questionnaires which were issued, 58 were correctly filled and returned thus they formed a reply of 82.9%. This response rate was appropriate since according to Kothari (2009), a reply of greater than 70% is appropriate for data analysis as shown in Table 4.1.

Table 4. 1

Overall Response Rate

Managers	Questionnaire distributed	Questionnaire returned	Percentage
Procurement officers	15	12	80
Budget officers	6	5	83.3
Accountants	36	30	83.3
Revenue officers	12	10	83.3
Chief officer finance	1	1	100
<u>Total</u>	70	58	

According to Mugenda and Mugenda (2013), if the response rate is above 50% of the sample the collected data is sufficient to be subjected to analysis. Cooper and Schindler (2014) are also of the view that such a response rate is admissible.

4.3 Reliability Analysis

In order to examine dependability of the data collection tool an internal consistency technique Cronbach's alpha was computed using SPSS. Pre-testing comprised questionnaires from 12 ICT staff in Meru county government and analysis done using SPSS Cronbach's alpha. As per Zinbarg (2005), Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability.

4.4 Background Information of Respondents

To achieve main objective of the study background information regarding the respondents was of good use. This information was mainly on identifying the gender distribution, work experience and education level.

4.5 Gender Distribution of Respondents

There was a good representation based on gender balance from the respondents' for the purposes of gender parity. The respondents ticked their gender as required and the result are Tabled on 4.2

Table 4. 2

Distribution of Respondents by Gender

Gender	Percentage
Male	45.9
Female	54.1
Total	100

The gender representation in the study was fair. Table 4.2 indicates that most of the respondents (54.1%) were female while (45.9%) were male. The distribution of both genders is fair for the study. The purpose of indicating the gender balance is to show how opinion from both sides are accommodated at any work experience and the fruits of gender mainstreaming.

4.6 Working Experience of Respondents

From this question, the study sought to get how long in term of years the respondents have worked for Meru County. The respondents were asked to provide information on the work experience in Meru County. The responses on respondent working experience are shown in Table 4.3

Table 4. 3

Years of service

Years of Service

	Frequency	Percentage
Less than 1 years	10	14.2
1 to 3 years	40	57.1
3 to 5 years	15	21
More than 5 years	5	7.1
Total	70	100

Findings in Table 4.4 indicates that (57%) have worked for between 1 to 3 years, (14.2%) posses less than 1 years,(21%) ranges between 3 to 5 years and (7.1%) posses 5 year and more work experience. This indicates that the respondent's posse's substantial working experience with the county government and therefore they possess enough information valuable for this study.

The study was in agreement with that of Maria (2011) who found that adoption of the technology management depends highly on the skills of the human resource handling them. The researcher indicated that the skills can be acquired through working experience. From the findings of the study, it is noted that most of the respondents were experienced meaning that they posses information that was crucial to the study. Given that most of the respondents had substantial work experience, it is therefore expected that the information on ICT adoption can well be retrieved from the respondents.

4.7 Level of Education of Respondents

The study intended to find out the level of education of the respondents so as to ascertain if academic and professional qualification affected the financial management in Meru County government. The findings of the study are displayed in Table 4.5

Table 4. 4

Level of Education of Respondents

Level of Education	Frequency	Percentage
KCSE	7	9.9
Certificate/Diploma	22	30.8
Degree	21	29.5
Masters	15	21.6
Doctorate	5	8.1
Total	70	100

From the findings to ascertain level of education, majority (30.8%) of the respondents said that they possess at least a post secondary level of education while (29.5%) specifically indicated that they are degree holders, (9.9%) are secondary level of education holders (21.6%) hold a master's degree while (8.1 %) as shown on (Table 4.4). After profiling the respondents, the researcher was able to conclude that well educated respondents are able to provide better information for the study.

4.8 Descriptive Statistics on Predictor Variables

The study sought to establish the effects of information communication technology adoption on financial management in Meru County Government. Specifically, the study focused on

budgeting process automation, revenue collection automation, and procurement automation.

The results on these predictor variables are presented below.

4.9 Descriptive Statistics on Budgeting Process Automation on financial management in Meru County Government

The first objective of the study sought to determine the extent to which respondents agree / disagree with statement regarding the effects of budgeting process automation on the financial management in Meru County. This was measured in a Likert Scale of 1-5 Where: 1= Strongly Disagree, 2 = Disagree 3= Neutral, 4 = Agree, 5 = strongly agree. The results are presented in Table 4.6.

Table 4. 5***Budgeting process automation on the financial management in Meru County***

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Stdev
Creation of paperless budgeting which is more verifiable and less bulky	0(0%)	3(3.7%)	15(21%)	37(53%)	15(21%)	3.93	.78
ICT has contributed to cost savings taking less time for budget preparation	0(0%)	0(0%)	5(7.8%)	35(50%)	29(42%)	4.37	.63
ICT has enhancing transparency on funds allocation and entire budget making process	0(0%)	2(2.6%)	26(36.8%)	24(34.2%)	18(26.3%)	3.89	.89
ICT has Improved on decision making during budget making by provision of immediate reports	0(0%)	0(0%)	18(26.3%)	26(36.8%)	26(36.8%)	4.11	.80
Budgeting electronic module linking budgeting with availability of funds has enabled controls	0(0%)	5(7.8%)	22(31.5%)	11(5.7%)	31(44.7%)	4.04	1.06
Enabled undertaking of only projects budgeted for hence reduction in pending bills	0(0%)	2(2.6%)	22(31.5%)	8(39.6%)	18(26.3%)	3.89	.85
Enabled integration of budgeting to long term strategic planning	2(2.6)	13(18.4%)	24(34.2%)	26(36.8)	5(7.8%)	3.26	.98
Composite Mean and Std						3.99	1.04

According to the findings of the study, the respondents agreed to the statement that Creation of paperless budgeting which is more verifiable and less bulky; That ICT has contributed to cost savings taking less time for budget preparation; That ICT has enhancing transparency on funds allocation and entire budget making process. and that ICT has Improved on decision making during budget making by provision of immediate reports; That budgeting electronic module linking budgeting with availability of funds has enabled controls; That enabled

undertaking of only projects budgeted for hence reduction in pending bills; That enabled integration of budgeting to long term strategic planning with a composite mean of 3.99 respect, The findings collates with literature review by Nyakarura et al., (2016) who found that in government, budgeting is regarded as annual financial estimates proposing how the government intends to raise revenue and expenditures for the same period which is prepared by the ministry for finance and presented to the nation with the approval of the national assembly. This means that the Meru county management has been adhering with budgeting process automation on their financial management as indicated by most of respondents.

4.10 Descriptive statistics on Revenue collection automation in Meru County Government

The respondents were given questions and statements to seek answers regarding the on how revenue collection automation affects the financial management in Meru County. This objective of the study was intended to answer the question o the extent the respondents agree with statement regarding revenue collection automation on the financial management in Meru County. This was measured in a Likert Scale of 1-5 Where: 1= Strongly Disagree, 2 = Disagree 3= Neutral, 4 = Agree, 5 = strongly agree. The results are presented in Table 4.7

Table 4. 6***Revenue collection automation on the financial management in Meru County***

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Stddev
ICT has enabled auto reconciliation of revenue collection to exchequer balance	0(0%)	4(5.3%)	18(25.9%)	22(31.5%)	2(3%)	4.07	.92
Automation has enabled cost reduction by eliminating use of tickets and engaging less staff	2(2.6%)	5(7.8%)	20(28.9%)	18(26.3%)	24(34.2%)	3.85	1.13
Automation has enhanced transparency by elimination of duplicate receipts	5(7.8%)	5(7.8%)	20(28.9%)	20(28.9%)	18(26.3%)	3.59	1.19
Automation has improved on timely report generation for the purpose of decision making	0(0%)	2(2.6%)	22(31.5%)	28(39.4%)	18(26.3%)	3.89	.85
There is equity and transparency in government available resource allocation to projects	0(0%)	0(0%)	5(7.8%)	35(50%)	29(42%)	4.37	.63
Elimination of use of revenue directly at source without going to the revenue fund	0(0%)	4(5.2%)	22(31.5%)	26(37.0%)	26(36.8%)	3.85	.86
Online monitoring of revenue collection	5(7.8%)	9(13.1%)	16(23%)	22(31%)	17(23.6%)	3.76	1.18
Composite Mean and Std						3.78	1.01

From the findings respondents agreed to the statement that the ICT has enabled auto reconciliation of revenue collection to exchequer balance;; that Automation has enabled cost reduction by eliminating use of tickets and engaging less staff; That automation has enhanced transparency by elimination of duplicate receipts; That the automation has improved on timely report generation for the purpose of decision making; That there is equity and transparency in government available resource allocation to projects; That Elimination of use

of revenue directly at source without going to the revenue fund; That Online monitoring of revenue collection As indicated by a composite mean of 3.78.

Isaac and Lilian (2010) did a study on revenue management and automation in Uganda. This study established that automation of revenue management had made the operations more effective and efficient was observed that for automation to be efficient and effective.

Oduor, Sevilla, Wanyoike, and Mutua, (2016) on a study that analyzed revenue collection automation responsiveness in Kiambu County, they found out that this transition from the manual systems to the automated systems is one way of revitalization revenue collected by the county governments. This implies that effectiveness in revenue collection automation will translate to positive finance managements in Kenya.

4.11 Descriptive statistics on Procurement Automation in Meru County Government

The other objective included in this study was on to what extent the respondents agree with the statement on procurement automation on the financial management in Meru County.

The participants were required to indicate to what level they agree with the statement on statement regarding procurement automation on the financial management in Meru County as indicate in Table 4.8

Table 4. 7***Procurement Automation on the Financial Management in Meru County***

Statements	Strongly Disagree	Disagree	Neutral,	Agree	Strongly agree	Mean	Stddev
Procurement automation has enabled online tender advertisement	0(0%)	4(5.2%)	22(31.5)	20(28.9%)	24(34.2%)	4.03	.93
The system has enabled suppliers to check and apply for advertised tenders online	0(0%)	11(15.7)	20(28.9%)	15(21%)	24(34%)	3.74	1.09
Automation has cut down on time used for tender evaluation and awarding	5(7.8%)	9(13.1%)	16(23%)	22(31%)	17(23.6%)	3.4	1.18
Automation has enhanced transparency of tender process by elimination of tampering with the exercise manually	0(0%)	4(5.2%)	22(31.5%)	26(37.0%)	26(36.8%)	3.85	.86
Automation has enabled linking of procurement and budgeted amounts	2(2.6%)	13(18.4%)	24(34.2%)	26(36.8)	5(7.8%)	3.26	.98
The system has enabled the management to generate quick and up to date report regarding procurement process	0(0%)	5(7.8%)	22(31.5%)	11(15.7)	31(44.7%)	4.04	1.06
ICT has reduced the level of fraud during procurement process	5(7.8%)	9(13.1%)	16(23%)	22(31%)	17(23.6%)	4.04	1.06
Composite Mean and Std						3.86	0.87

From the resulting findings the respondents agreed to the statement that the procurement automation has enabled online tender advertisement. That the system has enabled suppliers to check and apply for advertised tenders online; That Automation has cut down on time used for tender evaluation and awarding; that Automation has enhanced transparency of tender process by elimination of tampering with the exercise manually; that Automation has enabled linking of procurement and budgeted amounts; that the system has enabled the

management to generate quick and up to date report regarding procurement process; that ICT has reduced the level of fraud during procurement process as indicated by a mean of 4.03; 3.74; 3.4; 3.85; 3.26; 4.04; 4.04 and composite mean of 3.86.

This study brings together another literature review done by Joakim (2016) who carried out a study on the impact of web-based e-procurement on organizational performance. The study was looking at the impact of online procurement to an organization. From the study, some of the issues which stood out is that an online procurement can create a positive relation between the buyers and the sellers in respect to information sharing.

The study is in line with study done by Ashkul (2014) who investigated the relationship between e-procurement and organizational performance on NGOs in Nairobi, Kenya established that there was accountability and a competitive balance in resource sourcing and improved circulation of relevant information. It is also noted that poor support from the management, inadequate training for the workers and malfunction on compliance issues were acting as constrains to the implementation of e-procurement. The findings of this study can be criticized that the study only directly applicable to the NGOs in Nairobi. It only focused on e-procurement performance and supply chain incorporation among NGOs in Nairobi.

These findings are also consistent with the study by Aminatu, (2015) that identified different challenges of e-procurement implementation amongst them: absence of a integrated system and unified issues, immaturity of e-procurement-based market services and end user resistance and lastly eccentric buying and a segregated e-procurement system which cannot be compatible with other systems.

4.12 Descriptive statistics on Cash Management Automation in Meru County

Government

The fourth objective of the study was to determine the extent to which respondents agree with statement regarding cash automation on the financial management in Meru County. The respondents were presented with questions and statements in order to seek answers to the fourth research question on how cash management automation affects the financial management in Meru County. Their responses are illustrated in Table 4.9.

Table 4. 8***Cash management automation on the financial management in Meru County.***

Statements	Strongly Disagree	Disagree	Neutral,	Agree	Strongly agree	Mean	Stddev
Cash management automation enables transfer of funds efficiently and with certainty in county	8(11%)	9(12.2%)	16(22.5%)	17(24.1%)	22(31.2%)	5.13	1.93
Cash management automation enables organization to structure funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will	6(9%)	10(13.7%)	18(26.1%)	15(22%)	21(30%)	3.94	0.59
Cash management automation seek to improve execution by providing timely and accurate data for cash management and decision making	6(8%)	12(17.1%)	14(20%)	20(28%)	19(27%)	4.12	1.28
Cash management automation seek to enhance confidence and credibility of the cash through greater transparency of information	3(4%)	11(15.2%)	16(23.5%)	22(31.0%)	19(26.8%)	3.55	1.86
Automation has enabled high level of cash accountability	6(8%)	8(11.4%)	17(24.2%)	20(28%)	21(30.8%)	3.65	1.98
Cash management automation enables county leadership to understand the true cost of service delivered by the county per activity	7(10%)	12(17.8%)	15(21.5%)	18(25.7)	18(25%)	4.04	1.16
Through Cash management automation, the county finance department is able to reconcile transactions data in real-time	5(7.8%)	9(13%)	16(23%)	20(29%)	20(28%)	4.13	1.66
Composite Mean and Std						4.16	1.80

From the findings obtained, the respondents agreed that the Cash management automation enables transfer of funds efficiently and with certainty in the county; That Cash management automation enables organization to structure funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will,; That Cash management automation seek to provide timely and accurate data regarding

cash management; that cash management automation seek to enhance confidence of the service users depending on the reports given to them; that automation has enabled high level of cash accountability; that cash management automation enables county leadership to realize the actual cost of for a specific service by the county; that through cash management automation, the county finance department can reconcile cash transactions data in real-time as indicated by a composite mean of 4.16.

This study collates with literature review by Mugambi (2018) who did a study to determine the effect of implementation of information system on financial management in Kenya. This study revealed that there were various systems in use especially in county government where a combination of IFMIS and LAIFORM are being used to manage financial matters. This means that Cash management automation plays a key role in financial management in Meru county government.

Njonde and Kimanzi (2014) analyzed how effective the Integrated Financial Management Information System was on performance of public sector in Kenya. The study was looking at four variables which according to the researcher are crucial in financial management. It was found out from the study that ICT has been effective in financial controls, budget controls, and other internal control factors that affect financial management. From the findings of the study a positive relationship between the effectiveness of ICT on public financial management was established.

Njoroge and Wanyoike (2016) studied the effect of ICT adoption on cash management which took place in Eldoret district, Kenya. It was established from this study that automating cash management brings positive effect through effective and accurate cash reporting. It was also concluded that for any organization to rely on a system, that system must be accurate, able to

generate reports in time, complete and consistency in its report. All this can be possible through an automation process which also limits the access.

4.13 Descriptive statistics on Financial Management in Meru County

The study sought to find out the level of agreement or disagreement with the following statements on effects on the financial management in Meru County that Financial reporting has been influenced; that able to mobilize funds in the government; that the system able to auto reconcile financial records; that the system able to improve on financial planning; that automation has eased the decision making process; that the system has improved the transparency on financial matters and that there is accountability on financial utilization influenced the financial management in Meru County. As indicated by a composite mean of 4.36. The findings were in line with Aminatu (2015) that in order to achieve effective financial management (related to financial sustainability), there ought to be sound planning for capital expenditure, the local government ought to strictly abide with legislation and other set guidelines in spending, doing financial planning and organizing local services (Thong 2015). The results of this study were further supported by an empirical case study conducted by Cowell (2017), which found that the concept of accountability was undermined, while at the same there was increased dependency on disbursements from the national government, a fact that negated the financial management of the devolved governments.

The fact that financial management is crucial in respect of financial sustainability of county governments reinforces earlier findings by a study conducted by (Weeks, 2016). This implies that financial management was linked to financial performance in Meru county government.

These findings were also in line with those of (Ashkul, 2016) contends that financial management is mainly involved in rising of funds and their effective utilization to achieve the objective of the organization which is the wealth maximization. This implies that according

to the findings Meru County has good systems that ensure proper financial management.

Table 4.10 indicates the summarized result.

Table 4. 9

Financial Management on Meru County government

Statements	Strongly Disagr	Disagree	Neutral,	Agree	Strongly agree	Mean	Stdev
Financial reporting has been influenced	5(6.7%)	5(6.7%)	2(2.3%)	2(3.2%)	3(4.4%)	16.2	60.5
Able to mobilize funds in the government	1(1.2%)	4(6.4%)	2(3.5%)	2(2.3%)	2(2.3%)	38.3	46
The system able to auto reconcile financial records	1(1.2%)	1(1.1%)	2(2.3%)	0(0%)	7(10.4%)	31.5	53.5
The system able to improve on financial planning	1(2%)	5(6.7%)	0(0%)	6(9.1%)	6(7.9%)	29	45.3
Automation has eased the decision making process	3(3.9%)	4(5.7%)	3(3.7%)	2(3.5%)	7(9.8%)	30.7	42.7
The system has improved the transparency on financial matters	1(2%)	1(2.1%)	3(4%)	2(3.1%)	14(20.1%)	27	41.7
There is accountability on financial utilization	5(6.7%)	5(6.7%)	2(2.3%)	2(3.2%)	3(4.4%)	16.2	60.5
Composite Mean and Std						4.36	1.57

4.14 Multiple Regression Analysis

Am multiple regression analysis was done to determine the relationship between y and the four variables.

($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$) becomes:

$$Y = 2.962 + 0.873X_1 + 0.581X_2 + 0.713X_3 + 0.289X_4 + \epsilon$$

Where Y is the dependent variable (financial management), X_1 is the budgeting process automation variable, X_2 is revenue collection automation variable, X_3 is procurement process automation variable and X_4 is the cash management automation.

As per the regression equation from the data, by considering all factors (budgeting process automation, revenue collection automation, procurement process automation and cash management automation) constant at zero, use financial management had 2.962. The generated data also indicates that assuming the independent variables at zero, there is an increase in a unit of budgeting process automation led to a 0.873 increase in financial management; a unit increase in revenue collection automation led to a 0.581 increase in financial management, a unit increase in procurement process automation led to a 0.713 increase in financial management and a unit increase in cash management automation led to a 0.289 increase in financial management. This infers that budgeting process automation contribute more to the financial management in Meru County followed by procurement process automation, revenue collection automation and cash management automation respectively.

Table 4. 10
Multiple Regression Analysis

Model		Unstandardized Coefficients B	Standardized Coefficients Beta	T	Sig.
1	(Constant)	2.962		0.168	0.867
	Budgeting process automation	0.873	0.071	1.849	0.056
	Revenue collection automation	0.581	0.008	1.210	0.004
	Procurement process automation	0.713	0.213	4.141	0.000
	Cash management automation	0.289	0.233	5.222	0.001

a. Dependent Variable: Financial management in Meru county

4.15 Inferential Statistics on Study Variables

These are set of methods used to generalize information, make estimates, predicts results and conclusions made. Inference is where by the researchers makes conclusions from the data mostly gathered through random variations, observed errors or variations in sampling (Upton, 2013). When testing hypotheses and making estimations, the researcher uses inferential statistics.

The researcher conducted a inferential statistics analysis so as to find out if ICT adoption has a significant effect on financial management in the public sector in Kenya purposing on Meru County Government. The researcher used SPSS, in capturing and computing the measurements of the inferential statistics.

4.16 Hypothesis Testing

Both descriptive, inferential statistics and diagnostic test were used to investigate the data. The results were analyzed from response rate, back ground information, budgeting process

automation; budgeting process automation; revenue collection automation; procurement process; and cash management automation. Regression analysis was run to show the temperament of the relationship between financial management in Meru county Government and the independent variables. Diagnostic test was done in order to bring the data to a level with more meaning and able to manage set of factors. This was done by condensing the information available to small set without losing the original meaning and information.

The results of each model were summarized in Table 4.12, 4.13 and 4.14, whose results were used to test the four hypotheses.

Table 4. 11

Model Summary on the Independent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
X1	.152 ^a	.026	.001	.39921	1.999
X2	.417 ^a	.192	.166	.23491	3.100
X3	.133 ^a	.020	.008	.39999	1.967
X4	.095 ^a	.002	-.008	.41209	2.100
Y	.299 ^a	.209	.110	.40001	1.981

a. Predictors: (Constant), X1, X2, X3, X4

b. Dependent Variable: Y

Table 4.12 shows the five hypothesized predictors of financial management in Meru County government and indicate the percentage of variation that is accounted by each of them. The results also show the Durbin-Watson value for each independent predictor, which was found to be more than 1 in each case. This indicates that no autocorrelation was found in each case hence each model was relevant in the analysis.

Table 4. 12
Influence of Independent variables on financial management in Meru County government: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
X1	Regression	.341	9	.321	1.640	.224 ^b
	Residual	13.421	61	.181		
	Total	13.721	70			
X2	Regression	2.215	1	3.231	12.099	.000 ^b
	Residual	11.570	61	.171		
	Total	13.721	70			
X3	Regression	.321	9	.256	1.431	.269 ^b
	Residual	13.382	61	.177		
	Total	13.721	70			
X4	Regression	.134	9	.137	.721	.402 ^b
	Residual	13.398	61	.192		
	Total	13.721	70			

a. Dependent Variable: Y

b. Predictors: (Constant), X1, X2, X3, X4

The ANOVA Table 4.13 shows the significance of each model in predicting the variations in dependent variable. The relationship or the effect of predictor variable is regarded significant if $P < 0.05$. Results show that only two out of three predictor variables, that is, revenue collection automation (X2) and cash management automation (X4) are statistically significant in accounting for the variations in the dependent variable (Financial management in Meru County government).

Table 4. 13
Influence of Independent Variables on Financial management in Meru County government: Regression Weights

Model		Unstandardized		Standardized	T	Sig.	Collinearity	
		Coefficients		Coefficients			Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.999	.402		11.201	.001		
	X1	.167	.110	.152	1.346	.224	1.001	1.001
2	(Constant)	2.898	.388		7.114	.001		
	X2	.0492	.100	.417	2.950	.001	1.001	1.001
3	(Constant)	3.345	.401		9.801	.001		
	X3	.170	.131	.133	1.171	.281	1.001	1.001
4	(Constant)	3.990	.399		11.189	.001		
	X4	-.100	.111	-.088	-.931	.391	1.001	1.001

a. Dependent Variable: Y

Table 4.14 shows a VIF value of 1 for each predictor, the results show the coefficient values (regression weights) of the predictor and the level of significance. The beta coefficient was used because the four predictors had identical Likert scales, and also considering that the constant value in each model was significant.

4.17 Influence of budgeting process automation on the financial management in Meru County government

The first null hypothesis (H_{01}) predicted that budgeting process automation has no significant influence on the financial management in Meru County government. According to ANOVA Table 4.13, the computed significance level, $P = .224$ was higher than the alpha value of 0.05 hence we fail to reject the null hypothesis and conclude that although the budgeting process automation has a positive relationship ($r = .152$ in Table 4.12) with financial management in Meru County government, its impact is very minimal ($R^2 = .026$). This implies that the budgeting process automation is not significantly influencing the financial management in

Meru County government. The findings contrast Nyakarura, Mutuma, & Ileri, (2016) who found a positive correlation between planning and budgeting process automation. Therefore, Nyakarura and others rejected the null hypothesis.

4.18 Effect of revenue collection automation on the financial management in Meru County government

The second null hypothesis (H_{02}) predicted that revenue collection automation has no significant effect on the financial management in Meru County government. The linear regression model shown in ANOVA Table 4.13 was found to be good fit of the data ($F_{(1,74)} = 12.099$, $P = 0.000$) at 5% degree of significance which implies that revenue collection automation has a positive and significant relationship ($r = .417$, Table 4.12) with financial management in Meru County government. The null hypothesis was therefore rejected and concluded that revenue collection automation has significant effect on the financial management in Meru County government. The resulting goodness of fit as shown in Table 4.12 was $R^2 = .192$, indicates that 19.2% of the variability in Y is explained by revenue collection automation.

This is also confirmed by the regression weights in Table 4.14 ($\beta_2 = .0348$, $P = .000$). The result implies that revenue collection automation is positively and statistically significant in affecting the financial management in Meru County government.

From the Table 4.13 a significant value of ($p = 0.000$) was established indicating that the hypothesis (there is no significant relationship between automated revenue collection and financial management) is not accepted meaning a significant relationship.

4.19 Influence of procurement process automation on the financial management in Meru County government

The third null hypothesis ($H0_3$) predicted that the procurement process automation has no significant influence on the financial management in Meru County government. According to ANOVA Table 4.13, the computed significance level, $P = .253$ was higher than the alpha value of 0.05, hence, the study failed to reject the null hypothesis and concluded that, although the procurement process automation has a positive relationship ($r = .133$, Table 4.12) with financial management in Meru County government, its effects ($R^2 = .020$) is very minimal. This implies that the procurement process automation does not significantly influence the financial management in Meru County government.

The findings concur with those of Karanja (2014) who also established that integration of ICT in conducting procurements highly boosted financial performance. The findings also concur with Chado (2015) that e-procurement is the way to go for all organizations that target to achieve effective financial management.

4.20 Influence of cash management automation on the financial management in Meru County government

The fourth null hypothesis ($H0_4$) predicted that the cash management automation has no significant influence on the financial management in Meru County government. According to ANOVA Table 4.13, the computed significance level, $P = .433$ was higher than the alpha value of 0.05, hence, the study failed to reject the null hypothesis and concluded that, although the cash management automation has a positive relationship ($r = .095$, Table 4.12) with financial management in Meru County government, its effect ($R^2 = .002$) is very minimal. This implies that the cash management automation does not significantly influence the financial management in Meru County government.

Table 4.15 further shows absence of multicollinearity among the study variables where VIF is less than 10 in each case. The overall results confirm the hypothesized model that the four variables model influences the financial management in Meru County government.

Table 4. 14
Influence of Coefficients Matrix Model on financial management in Meru County government

Model	Unstandardized		Standardized	t	Sig.	Collinearity		
	Coefficients		Coefficients			Tolerance	VIF	
	B	Std. Error	Beta					
(Constant)	3.181	.712		4.233	.000			
1	X1	0.066	.111	.076	.591	.503	.851	1.177
	X2	.0.258	.209	.299	2.290	.041	.745	1.340
	X3	-.0.044	.139	-.044	-.260	.881	.780	1.312
	X4	-.0.096	.109	-.091	-.853	.496	.934	1.099

a. Dependent Variable: Y

Since all predictors of financial management in Meru County government (budgeting process automation, X1; revenue collection automation X2; procurement process automation, X3; cash management automation, X4; had identical Likert scales, and considering that the constant value is significant in this model as shown in Table 4.15, the study therefore used the B-coefficients rather than the beta coefficients in interpreting the regression weights. Consequently, the value of regression weights shown in Table 4.15 indicate that the financial management in Meru County government will always exist at a certain significant minimum ($\beta_0=3.181, P < .000$).

The hypothesized model ($Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e$) now quantifies the strength of the relationships presumed in this study. Precisely, the model shows that the financial management in Meru County government is (0.066 x budgeting process automation)

+ (0.258 x revenue collection automation) + (-0.044 x procurement process automation) + (-0.096 x cash management automation) + 3.181).

In this model, 3.181 is a baseline score that is unrelated to any other variables which means that it is the same 3.181 points for each variable; for example, on average, 1 point higher on budgeting process automation score 0.066 points higher on financial management in Meru County government. The resulting model in this study is:

$$(Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e)$$

$$Y = 3.181 + 0.066X_1 + 0.258 X_2 - 0.044 X_3 - 0.096 X_4 + e$$

Where:

B₀ = constant value,

X₁ = Budgeting process automation,

X₂ = Revenue collection automation,

X₃ = Procurement process automation,

X₄ = Cash management automation,

e = standard error.

The multiple regressions results of coefficient in Table 4.14 indicate that only budgeting process automation (X₂), ($\beta_2 = 0.258$, P = .024) that is statistically significant and positively related to the financial management in Meru County government. This implies that, although all the four predictors are relevant in financial management in the Meru County Government. This indicates that there is budgeting process automation on financial management in Meru County government.

This finding agrees with World Bank (2016) on the automation of financial management in the public sector. From this study, it was established that as a result of automation of financial management, reporting had improved to recommendable level. This also agrees with winks

(2016) which indicated reporting in all sectors has improved when compared to prior period as a result of automation. To realize this, a single reporting platform is used which can only work through an integrated system.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, conclusions and recommendations of the study. It concludes by making suggestions for further research. The presentation in this chapter starts by providing introduction of the study followed by a summary of the key findings. The conclusions and recommendations are based on the findings of the study.

The purpose of the study was to find out if ICT adoption has a significant effect on financial management in the public sector in Kenya purposing on Meru County Government. This was realized by pursuing four research objectives which led to the study on the effects of budgeting process automation, the effect of revenue collection automation, effect of procurement process automation, and effect of cash management automation on financial management in the public sector in Kenya purposing on Meru County Government.

A review of empirical literature was done based on research objectives; relating the past studies. The reviewed studies indicated that there existed knowledge gaps on methodology used by different authors, while context and conceptualization of the four constructs that were under investigation in this study was lacking. Key theories such as Diffusion of Innovations (DOI) Theory, System theory, and Technology Acceptance Model (TAM) were reviewed in respect to guide the general study and dependent and independent variables.

Descriptive survey design was adopted in guiding the investigation process. Data was collected from Meru County Government using a structured questionnaire. The study targeted fifteen (15) procurement officers, six (6) budget officers, thirty six (36) accountants, twelve (12) revenue officers and one (1) chief officer in charge of finance.

The selected officers deal with the day to day management of the county's financial operations. From the target population the researcher conducted a census since the population was not big to do sample size.

Descriptive survey design was used in this study since it was suitable in investigating out if ICT adoption has any influence on financial management in the public sector in Kenya purposing on Meru County Government. Content and construct validity helped to ensure data quality, while cronbach's alpha value was used to test the reliability of the research instruments. Mean, standard deviation, and linear regression analysis were used in analyzing research data. Data was presented using tables.

5.2 Summary of the Major Findings

Major findings of this study were identified and summarized under each thematic area of each research objectives. The findings are showing that the financial management in the public sector in Kenya is guided by the internationally accepted accounting guidelines.

5.3 Effects of budgeting process automation on financial management

In objective one, the study examined the effect of budgeting process automation on financial management in Meru County government. From analyzed information in chapter four, it was very clear that the majority of respondents, (aggregate mean score of 3.99), agreed with the various assertions that aimed to assess the effect of budgeting process automation on financial management in Meru County government.

Based on the findings of the study, most of the respondents indicated that budgeting process automation affects financial management in Meru County. That Creation of paperless budgeting which is more verifiable and less bulky; that ICT has contributed to cost savings taking less time for budget preparation; that ICT has enhancing transparency on funds allocation and entire budget making process; that ICT has Improved on decision making

during budget making by provision of immediate reports; that budgeting electronic module linking budgeting with availability of funds has enabled controls; that enabled undertaking of only projects budgeted for hence reduction in pending bills and that enabled integration of budgeting to long term strategic planning.

5.4 Effects of revenue collection automation on financial management

For objective number two which looked at the effect of revenue collection automation on the financial management in Meru County government, the study found that most of the respondents, with a mean aggregate score of 3.78, agreed with the various assertions that aimed to assess the effect of revenue collection automation on the financial management in Meru County government.

From the findings, majority of the respondents said that revenue collection automation affects financial management in Meru. that the ICT has enabled auto reconciliation of revenue collection to exchequer balance; that Automation has enable cost reduction by eliminating use of tickets and engaging less staff; that automation has enhanced transparency by elimination of duplicate receipts; that the automation has improved on timely report generation for the purpose of decision making; that there is equity and transparency in government available resource allocation to projects; that elimination of use of revenue directly at source without going to the revenue fund and that there was Online monitoring of revenue collection.

5.5 Effects of procurement process automation on financial management

The results from the objective assessing the effect of procurement automation shows that According to the analysis of the findings, majority of the respondents indicated that procurement process automation affects financial management that Procurement automation has enabled online tender advertisement; that the system has enables suppliers to check and

apply for advertised tenders online; that Automation has cut down on time used for tender evaluation and awarding; that Automation has enhanced transparency of tender process by elimination of tampering with the exercise manually; that Automation has enabled linking of procurement and budgeted amounts; that the system has enabled the management to generate quick and up to date report regarding procurement process and that ICT has reduced the level of fraud during procurement process.

5.6 Effects of cash management automation on financial management

The results for objective four, which examined the effect of cash management automation on financial management in Meru County, indicated that majority of respondents agreed to the statement that the Cash management automation enables transfer funds efficiently and with certainty in the county; That Cash management automation enables organization to structure funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will; That Cash management automation seek to improve execution by providing timely and accurate data for cash management and decision making; that Cash management automation seek to enhance accuracy and enable high level of cash accountability; that Cash management automation enables county leadership to cost service delivered by the county per activity; that through Cash management automation, the county finance department is can prepare reconciliations and generate results in real-time.

5.7 Conclusions

The study observed that financial management in Meru County government is real and is largely characterized by maintaining a prudent financial balance, providing real mechanism for raising revenue to sustain the entity, and keeping in check any threat of financial

constrains. Other conclusions as indicated below are derived from the findings related to each of the research objectives.

5.8 Budgeting process automation and financial management in Meru County government

In relation to budgeting process automation, the study concludes that Budgeting process automation has a strong, positive and significant effect on financial management in Meru County government. The effect was deduced to have been caused by the fact that Meru County staffs were assisted by an expert person when preparing their automated budget. The findings conclude budget process automation is a tool for making decision making through involvement of managers in budget making. The findings conclude that majority of the respondents strongly agreed that while preparing budgets; as a result of automation there was an improvement on financial reporting.

5.9 Revenue collection automation and financial management in Meru County government

The study concludes that automation of revenue collection is working in Meru County though with challenges and there more investment needs to be put in place for its success. The study further concludes that automation of revenue collection processes is a way of effective management.

5.10 Procurement process automation and financial management in Meru County government

Various automated systems that were found to be constantly being used by Meru County government were; electronic mail, automated identification barcode, electronic data interchange, e-procurement and electronic catalogue. Moreover, the statistics revealed that continuous management support, employee training, financing, and user acceptance of

automated procurement systems could lead to monetary savings, time saving, increased accuracy, enhanced negotiation and purchasing power, increased compliance and gaining of competitive advantage.

5.11 Cash management automation and financial management in Meru County government

The study has established that management of cash is an integral part on financial management in Meru County For example the use of and therefore automation of these this activity will improve the credibility of its reporting.

5. 12 Recommendations

In view of the above conclusions, the study made several recommendations which are presented as per each research objectives.

5.13 Recommendations on Budgeting process automation and financial management in Meru County government

On budgeting process automation, the study recommended that Meru county government should invest on employee capacity improvement for ease of coping with emerging issues of budgeting and technology issues. Meru Government should try to have the budget be executed through Government Fiscal Management Information System (GFMIS) and decentralized according to units in government this is to establish an e-government that promises real time budgeting, budget implementation and report generation provide a real time national budget making, execution and financial reporting.

5.14 Recommendations on revenue collection automation and financial management in Meru County government

In relation to the revenue collection, the study recommended overhaul or improvement of the existing revenue collection automation machines and set policies that discourage excess cash

handling. The study further indicated that an appropriate revenue collection technique could lead to success. To achieve this common goal, it is necessary for the Meru county government to automate its services such as revenue collection processes, payments and accounting by use of modern ICT systems that will ease revenue collection and seal the gap which may prevent for the loss of funds.

From the study, it was established that cashless revenue collections has an effect on financial management in the county government of Meru. It is recommended from the study for the county to fully automate its revenue managements.

5.15 Recommendations on procurement process automation and financial management in Meru County government

Management of Meru County government need to undertake change management training to their employees to educate them on the benefits of migrating to automated procurement systems, this will help in reducing their resistance to innovations thereby drive up performance of their procurement operations. Meru County government management need to consider giving full support to innovations aimed at cutting costs and reducing time wasted when using traditional procurement processes. This will make the county able to sustain their grip on the market and therefore be sustainable and competitive in future. Meru County government should ensure that they provide adequate infrastructure needed for full automation of procurement systems.

5.16 Recommendations on cash management automation and financial management in Meru County government

From the findings on cash management automation the study recommends that automation systems should be fully implemented as it increases cash management. For Meru county Government to realize growth, investment in technology should be made in order to enhance

service delivery and transparency in cash management. The County should employ a cash management automation focus at the top communicating it throughout the county. The Meru County should actively consider ways of shortening the cash operating cycle to make the county more financially sound.

5.17 Areas of Further Research

The study was carried out on the effect of information communication technology adoption on financial management in Meru County Government. It thus suggests that future studies should be done on determine the factors affecting effective financial management in the private sector for purposes of comparison which was not covered by the study. The study also suggests that further study should be done to target the other counties in Kenya on how they are automating their financial management. The researcher further suggests that future studies should be to establish if views of information communication technology and financial management should be sought while designing the automation systems to easy effective financial management.

Reference

- Abdul Salam, A. O., Sheriff, R. E., & Al-Araji, S. R. (2018). Adaptive threshold and optimal frame duration for multi-taper spectrum sensing in cognitive radio. *ICT Express journal*, 6(17), 143. <https://doi.org/10.1016/j.ict.2018.02.002>
- Abubakar, F. M. (2013). The moderating effect of technology awareness on the relationship between constructs and behavioral intention to use Technology. *Australian Journal of Business and Management Research*, 3(2), 14–23. <https://doi.org/10.1018/j.ict.2013.02.0123>
- Adom, D., Hussein, E. K., & Joe, A. (2018). Theoretical and conceptual framework. *International Journal of Scientific Research*, 7(1), 2277 – 8179. doi : 10.15373/22778179.
- Africa Development Bank. (2018). *African development bank group; Kenya country strategy paper 2014-2018*. Retrieved from www.adb.org/data. 80 Economic Status.
- Agarwal, R. (2017). *Systems of revenue collection management revenue collection for local government / authorities*. Retrieved from <https://nationalgovernment.co.za/units/view/27/national-treasury>.
- Ajzen, I. (1991). *Theory of planned behavior*. University of Massachusetts press Amherst. USA. <http://www.academia.edu/5888928/Ajzen>.
- Ajzen, I., & Fishbein, M. (2012). The reasoned action approach. *Annals of the American Academy of Political and Social Science*, 640(1), 11–27. <https://doi.org/10.1177/0002716211423363>.
- Alaska department of revenue. (2016). *Automating cash management at the state of Alaska*. Retrieved from <https://gtreasury.com/wp-content/uploads/2013/06/Automating-Cash-Management-at-the-State-of-Alaska.pdf>
- Al-Rahimy, S. A. S. (2016). The potential advantages of implementing E-Government as

- well as factors on such adoption. *International Business Management Journals*, 10(3), 292–300. <https://doi.org/10.3923/ibm.2016.292.300>
- Aminatu, M. (2015). The impact of integrated financial management system on economic development: the Case of Ghana (Up Master's Thesis) Kore University, Accra Ghana. Retrieved from. <https://gsis.korea.ac.kr/wp-content/uploads/2015/06/15-2-04>.
- Ashkul, S. (2016) *Conceptual framework of financial management*. Accountants standard board. Retrieved from <http://www.sasb.org/wp-content/uploads/2013/10/SASB-ConceptualFramework-Final-Formatted-10-22-16.pdf>.
- Attom, B. E. (2016). The impact of Information Communication Technology (ICT) on business Growth strategies of Small and Medium-scale Enterprises (SMEs). *Asian Journal of Business and Management Sciences* 3(02), 13-28. Retrieved from <http://www.ajbms.org/articlepdf/2ajbms201303022755.pdf>
- Benhabib, J., & Bisin, A. (2015). Wealth distribution and social mobility in the US : A quantitative approach. *International Journal of Economics, Commerce and Management*, 3(1) 1–35. DOI: 10.1257/aer.20151684.
- Carvalho, A. C. (2002) *Sequencing ICT in post-conflict low-capacity countries undergoing decentralization case study: Sierra Leone and Rwanda*. UN Seminar paper World Bank publications, Washington, D.C. Retrieved from www.worldbank.org/publicsector/decentralization/March2005
- Catherine, N. (2017). Effect Of automation of services on revenue generation at the national transport and safety authority. (Up Master Thesis) University of Nairobi. Nairobi Kenya Retrieved from; <https://business.uonbi.ac.ke/index.php?q=node/777>
- Chado, H. M. (2015). The effect of integrated financial management information System on the financial management of public sector in Kenya (Up Master's Thesis) University of Nairobi, Nairobi Kenya. Retrieved from

<https://business.uonbi.ac.ke/index.php?q=node/777>.

- Cherotich, A., & Bichanga, O. W. (2016). Factors affecting effective implementation of integrated financial management information. *International Journal of Economics, Commerce and Management*, (4), 1049–1068. Retrieved from; <http://ijecm.co.uk/wp-content/uploads/2016/04/4461.pdf>.
- Chikere, C. C., & Nwoka, J. (2014). The systems theory of management in modern day organizations: A Study of aldgate congress resort limited Port Harcourt. *International Journal of Scientific and Research Publications*, 5(1), 2250–3153. Retrieved from www.ijsrp.org.
- Cosma, J. (2015). *The rewards of reform: Public Finance reforms in Africa*. Retrieved from www.icpak.com/wp-content/uploads/2017/04/8.-PFM.
- Cosma, J. (2015). *The rewards of reform: Public finance reforms in Africa* (Ed. Lagos). Conference proceedings of financial reforms in Africa, Lagos Nigeria. Retrieved from www.academia.edu/38542078/Public_Sector_Reforms.
- Cooper, D. R. & Schindler, P. S. (2014) *Business research methods*. (4th edition), Berkshire: London. Retrieved from www.worldcat.org/title/business-research-methods.
- David, A. (2016). *The Impact of new technologies in public financial management and performance*: Conference on reforming financial performance, Nancy university, Nancy France Retrieved from; <https://arxiv.org/ftp/arxiv/papers/0812/0812.1218.pdf>.
- Dener, C., & Min, S. Y. (2013). *Financial management information systems and open budget data* (4th ed.) London publisher, London Britain. <https://doi.org/10.1596/978-1-4648-0083-2>.
- Dohner, R., & Intal, P. (1989). *Government expenditure and revenues developing country debt and economic performance conference*: University of Chicago Press. Chicago USA <https://www.nber.org/chapters/c9048>.

- Ellis, T. J., & Levy, Y. (2017). Data sources for scholarly research: Towards a guide for novice researchers. *Issues in Informing Science and Information Technology* (6), 34–37 <http://iisit.org/Vol6/IISITv6p323-337Ellis663.pdf>.
- Emmanuel, S. (2018). The impact of tax administration on revenue generation in gombe state, Nigeria. *Research Gate*, 5(8), 2394–3398
Retrieved from <https://doi.org/10.19085/journal.sijmd050801>.
- Fundi, M. (2014). *Integrated financial management information system and procurement performance of the public sector in Kenya* (Up Master's Thesis) University of Nairobi, Nairobi Kenya. Retrieved from business.uonbi.ac.ke/index.php?q=node/10371.
- Gefen, D. & Larsen, K. (2017) A Demonstration on the Technology Acceptance Model
Journal of the Association for Information Systems 18(10) 2342-5674
doi - 10.17705/1jais.00469.
- Gok. (2010). Laws of Kenya. In *Kenya Law Reports* (1st ed.). Nairobi: Government Printer
retrieved from; www.kenyalawreports.or.ke/CaseSearch.
- GOK, M. of F. (2014). *What is IFMIS*. (Blog post). Retrieved from National Treasury website: www.treasury.go.ke/on23/3/2018.
- Gomes, R. C., Alfinito, S., & Albuquerque, P. H. M. (2015). Analyzing local government financial performance: Evidence from Brazilian municipalities. *Association of International Publishers*, 17(6), 704–719. <https://doi.org/10.1590/S1415-65552013000600005>.
- Gyaase, P. O., Anokye-sarfo, A., & Bediako, Y. (2013). The adoption of information and communication technology in the public sector; A study of the financial management in the Ghana education. *International Journal of Scientific and Technology*, 2(12), 327–335. <http://dx.doi.org/10.1787-v5-art20-en>.

- Institute of certified public accountant Kenya (ICPAK). (2014). *A Baseline Survey on Devolution in Kenya with*. Retrieved from website: www.icpak.com on 15 march 2018.
- Isaac, N. N., & Lilian, L. (2010). Automation and customs tax administration: Empirical evidence from Uganda. *African Journal of Business Management*, 4(11), 2241–2246. Retrieved from <http://www.academicjournals.org/AJBM>.
- Jain, P. K., & Yadav, S. S. (2015). Financial management practices in public sector enterprises. *Facilities journal*, 33(11/12), 736–751. <https://doi.org/10.1108/MIP-05-2017-0088>.
- Joakim, W., (2016) Customer-differentiated triadic interaction based on decoupling points. *Journal of Global Operations and Strategic Sourcing*, 10(2); 185-205 doi.org/10.1108/JGOSS-10-2016-0032.
- Joseph, H. (2013). *Essentials of business research methods* (1st Ed.). Retrieved from <https://books.google.co.ke/books?id=MpAAnXiBTW4C&printsec>.
- Kaimenyi, M. (2018, January 23). Meru county to fire 1,000 casual workers after eloitte audit. *Business Daily*, p.2.
- Karanja, J. G., & Eva, N. N. (2014). Factors influencing implementation of integrated financial management information system in Kenya government ministries. *Research Journal of Finance and Accounting*, 5(7), 10–18. Retrieved from www.iiste.org.
- Karimi, H., Maina, K. E., & Kinyua, J. M. (2017). Effect of technology and information systems on Revenue collection by the county government of Embu, Kenya. *International Academic Journal of Information Systems and Technology*, 2(1), 19–35. Retrieved from http://www.iajournals.org/articles/iajist_v2_i1_19_35.pdf.

- Karori, N., Muturi, W., & Abuga, M. V. (2016). Financial recording and comparative issues. *International Journal of Social Science and Information Technology*, 2(3), 234-298 Retrieved from; <https://doi.org/doi:10.1596/978-1-4648>.
- Kemboi, H. K., & Muturi, W. (2017). Effect of automation of financial management systems on financial performance of county government of Trans-Nzoia. *International Journal of Management and Commerce Innovations*, 4(2), 352–359. <https://www.iiste.org/Journals/index.php/EJBM/article/viewFile>.
- Kenton, W. (2019 July 17). Cash Management (Blog post). Retrieved from website: <https://www.investopedia.com/terms/c/cash-management.asp>.
- Kenya Governemnt and Gouvernement of Denmark. (2014) *Kenya Good Governance Support Programme*. Retrieved from <http://pfmr.go.ke/wp-content/uploads/2017/04/KGSP-PFM-Component-Feb-20141.pdf>.
- Kenya National Audit Office (KENAO). (2014). *Kenya national audit office report of the auditor general on the financial operations of Meru County*. Retrieved from www.oagkenya.go.ke/.../reports/.../266-meru-county-executive.
- Kenya National Audit Office (KENAO). (2018). *Kenya national audit office report of the auditor general on the financial operations of Meru County*. Retrieved from www.oagkenya.go.ke/.../reports/.../266-meru-county-executive.
- Kenya National Beaural of Statistics (KNBS). (2011). *Kenya—Kenya Population and Housing Census 2009—IPUMS Subset*. Nairobi. Rtrieved from www.knbs.or.ke/kenya-population-and-housing.
- Kioko, S. N., Marlowe, J., Matkin, D. S. T., & Moody, M. (2015). Why public financial management matters. *Journal of Public Administration Research and Theory*, 21(1), 113–124. <https://doi.org/10.1093/jopart/muq060>.

- Kioko, S. N., Marlowe, J., Matkin, D. S. T., Moody, M., Smith, D. L., & Zhao, Z. J. (2015). Why Public Financial Management Matters. *Journal of Public Administration Research and Theory*, 21(1), 113–124. <https://doi.org/10.1093/jopart/muq060>.
- Kirimi, P. W. (2015). *Influence of automation of revenue collection processes on organizational performance: a case of county government of Meru, Kenya*. (Up Master's thesis) University of Nairobi, Nairobi Kenya. Retrieved from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/92933/>.
- Kirk, J., & Miller, M. (2015). *Reliability and validity in qualitative research*. (2nd ed.). (e- book). Retrieved from <https://books.google.co.ke/books?id=KM88C&printsec>.
- Kirmani, M. M., Wani, F. A., & Saif, S. M. (2015). Impact of ICT on effective financial management. *International Journal of Information Science and System*, 4(1), 1–14. Retrieved from www.ModernScientificPress.com/Journals/IJINFOSCI.asp.
- Koltay, T. (2016). Library and information science and the digital humanities. *Journal of Documentation*, 72(4), 781–792. Retrieved from <https://doi.org/10.1108/JDOC-01-2016-0008>.
- Kothari. (2009). *Research methodology: Methods and Techniques* (2nd ed.). (e-book). New Delhi, India; New age international. Retrieved from https://www.academia.edu/33779875/C.R._Kothari_Research_Methodology.
- Kyobe, M., & Kyobe, M. (2011). Investigating the key factors influencing ICT adoption in South Africa. *Journal of Systems and Information Technology*, 13(3), 255-267. Retrieved from <https://doi.org/10.1108/13287261111164844>.
- Lai, P. (2017). The literature review of technology adoption models and theories for the novelty technology. *Journal of Information Systems and Technology Management*, 14(1). 21-38 Retrieved from <https://doi.org/10.4301/S1807-17752017000100002>
- Listyarini, S., Ratnaningsih, D. J., & Yuliana, E. (2010). The use of information and

- communication technology in universities Terbuka learning: Alumni and stakeholder perception. *Asian Association of Open Universities Journal* 2 (5), 89-102. doi.org/org/10.1108/AAOUJ-05-02-2010-B004.
- Ludwig, V. B. (1989). *General system theory*. (3rd Ed). Jeffrey University of Alberta Edmonton, Canada: New York Press.
- Retrieved from <https://www.panarchy.org/vonbertalanffy/systems.1968.html>.
- Lundu, B. L., & Shale, N. (2015). Effect of integrated financial management information system (IFMIS) implementation on supply chain management performance in the devolved government systems in Kenya. *International Academic Journal of Procurement and Supply Chain Management*, 1(5), 1–26. Retrieved from http://www.iajournals.org/articles/iajpscm_v1_i5_1_26.pdf Citation.
- Manueli, K., Latu, S., & Koh, D. (2013). The Adoption of Information and Communications Technology in Administration of Health Insurance Schemes in. *International Journal of Computer Science and Network* 2(6) 2277-542. Retrieved from <http://www.ijcsn.org/IJCSN-2013/2-6/IJCSN-2013-2-6-132.pdf>.
- Mele, C., Pels, J., Polese, F., Mele, C., Pels, J., & Polese, F. (2010). A brief review of systems theories and their managerial applications. *Services Science Global*. 2(1-2) doi/abs/10.1287/serv.2.1_2.126.
- Meru County government. (2013). *Meru county government first integrated development plan*. Retrieved from http://meru.go.ke/...meru_county_integrated_development_plan.
- Mohamed, U. (2017 October 19). *Automation and excellence in public sector*. (Blog post) Retrieved from: <https://disruptionhub.com/automation-public-sector>.
- Moore, M. (2015). Obstacles to increasing tax revenues in low income countries. *International Centre for Tax and Development*, (9), 23-45. Retrieved from

www.ictd.ac/publication/obstacles-to-increasing.

- Mugambi, F. Kirimi. (2018). Factors affecting implementation of revenue collection systems in county governments in Kenya case of Meru county. *International Journal For Research In Business, Management And Accounting*. 4(11), 525 Retrieved from <https://doi.org/gnpublication.org/index.php/bma/article/download>.
- Mugambi, K. W., Fridah, M., & Theuri, S. (2014). The challenges encountered by county governments in Kenya during budget preparation. *Journal of Business and Management*, 16(2), 128–134. Retrieved from <https://doi.org/doi.org/10.1108/AAOUJ-05-02>.
- Mugenda, A. (2008). *Research methods: Quantitative and Qualitative Approaches*. (Act press), Nairobi Retrieved from <https://search.yahoo.com/yhs/search>.
- Mulwa, J. M. (2015). Factors influencing adoption of ICT in service delivery by county governments in Kenya: A case of Kitui County (Up Master's Thesis), University of Nairobi, Nairobi Kenya. Retrieved from [http://erepository.uonbi.ac.ke/bitstream/handle/11295/76821/Mulwa 5/3/18](http://erepository.uonbi.ac.ke/bitstream/handle/11295/76821/Mulwa%205/3/18).
- Musee, K. J. (2011). *Factors affecting effective implementation of integrated* (Up Masters' Thesis), University of Nairobi, Nairobi Kenya. Retrieved from <http://erepository.uonbi.ac.ke/bitstream/handle>.
- Musoke, H. B. (2017). Evaluating the relationship between participatory budgeting and performance of microfinance institutions focusing on wakiso district, Uganda. *International Journal of Economics, Commerce and Management* 3(1), 206–224. Retrieved from <http://ijecm.co.uk>.
- Mutshewa, A. (2007). A theoretical exploration of information behaviour: A power perspective. *Aslib Proceedings*, 59(3), 249–263. Retrieved from doi.org/10.1108/00012530710752043.

- Mwaura, K. Z. (2016). Factors influencing implementation of integrated financial management information system in devolved government in Kenya. *The International Journal of Business and Management*, 4(9), 38–55. Retrieved from <http://dx.doi.org/10.1787/budget-v5-art20-en>.
- National Treasury. (2017). *Enhancement of county governments own-source revenue*. Nairobi. Retrieved from www.treasury.go.ke.
- Njeru, P. N. (2016). An assessment of integrated financial management information system implementation towards effective management practices in Nairobi and Lamu Counties (Up Master's Thesis), Strathmore University. Nairobi Kenya. Retrieved from; <https://su-plus.strathmore.edu/handle/11071/4787>.
- Njonde, J. N., & Kimanzi, K. (2014). Effect of integrated financial management information system on performance of public sector: A case of Nairobi county government. *International Journal of Social Sciences and Entrepreneurship*, 1(12), 1–23. Retrieved from www.ijssse.org/articles/ijssse_v1_i12_913_936.pdf.
- Njoroge, K. G., & Wanyoike, D. M. (2016). Influence of Integrated financial management information system on procurement performance in the county government of Nakuru, Kenya. *International Journal of Economics, Commerce and Management United Kingdom*, (10), 697–715. Retrieved from <http://ijecm.co.uk/>.
- Njeru, P. N. (2016). An assessment of integrated financial management information system implementation towards effective management practices in Nairobi and Lamu Counties (Up Master's Thesis) Strathmore University, Nairobi Kenya. <http://repo.kca.go.ke/dspace-oai/request> Identify.
- Nkeobuna, J., & Ugoani, N. (2017). Effect of weak public financial management on public sector management and sustainable development in Nigeria. *American Journal of Environment and Sustainable Development Effect*, 2(3), 23–32.

Retrieved from <http://www.aiscience.org/journal/ajesd>.

- Nyakarura, A., Mutuma, K., & Ileri, J. (2016). Challenges of budget implementation in the public sector: A case of Meru county in Kenya. *International Journal of Economics, Commerce and Management*. 2(11), 525–540. Retrieved from www.ijecm.co.uk/wp-content/uploads/2016/11/41135.pdf.
- Oduor, C., Sevilla, J., Wanyoike, T., & Mutua, N. (2016). (2016 May 11) *Automating revenue collections in Kenya: A case of Kiambu County*. Paper presented at Africa week conference, Durban South Africa. Retrieved from <https://doi.org/10.1109/ISTAFRICA.2016.7530621>.
- Onuorah, C. A. (2012). Accountability and Public Sector Financial Management in Nigeria. *Arabian Journal of Business Management Review*, 1(6), 1–17. Retrieved from <http://www.aiscience.org/journal/ajesd>.
- Otieno, O. C., Oginda, M., Obura, J. M., Aila, F. O., Ojera, P. B., & Siringi, E. M. (2013). Effect of information systems on revenue collection by local authorities in Homa Bay county , Kenya. *Universal Journal of Accounting and Finance*, 1(1), 29–33. Doi.org/10.13189/ujaf.2013.010104.
- Paramasivani, C & Subramanian T. (2009). *Financial management* (1st ed.) New Delphi, India . Retrieved from www.newagepublishers.com.
- Pessoa, M., & Williams, M. (2013). Government cash management: Relationship between the Treasury and the Central Bank. *Technical Notes and Manuals*. 12(02), 1-30. Doi.org/10.5089/9781616355487.005.
- Public procurement and disposals act 2015*. (2017 November 12) Pub. L. No. 207, 2017. Retrieved from www.parliament.go.ke/.../Public_Procurement...FINAL_COPY.pdf.
- Rogers, E. M. (1962). *Diffusion of innovation third edition* (3rd ed.). New York: Macmillan.
- Sagala, K. (2015). *Review of County Initiatives in Public Participation in the Roll Out of*

- Devolution*. Presented to World Bank devolution review conference, Nairobi Kenya.
Retrieved from; www.documents.albankaldawli.org/curated/ar/.
- Sahin, I. (2006). Diffusion of innovations theory based on Rogers. *The Turkish Online Journal of Educational Technology* 5(2), 14–23. Retrieved from <https://doi.org/doi.org/org/10.1108/AAOUJ-05-02-2010-B004>.
- Serah, N. N. (2014). Challenges facing effective information and communications technology implementation in selected public secondary schools. (Up Master's Thesis), University of Nairobi. Nairobi Kenya.
Retrieved from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/76821>
- Tarutè, A., & Gatautis, R. (2014). ICT impact on SMEs performance. *Procedural Social and Behavioral Sciences*, 110(2), 1218–1225. Retrieved from <https://doi.org/10.1016/j.sbspro.2013.12.968>.
- Tatnall, A., & Burgess, S. (2009). Adoption of E-Commerce in SMEs. *Encyclopedia of Information Science and Technology*, 2(11) 41–45. <https://doi.org/10.4018/978-1-60566-026-4.ch008>.
- Thuo, E. (2016). The influence of quality management practices on financial performance of Commercial Banks in Kenya. (Up Master's Thesis), University of Nairobi, Nairobi Kenya Retrieved from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/99383/>.
- Treasury. (2015). *IFMIS implementation report*. (Blog post) Soko Direct. Retrieved from <https://sokodirectory.com/2015/06/report-ifmis-implementation-in-kenyas-government>.
- Tsohou, A., Lee, H. & Irani, Z. (2014), Innovative public governance through cloud Computing, *Transforming Government: People, Process and Policy*, 8(2), 251-282. <https://doi.org> <https://doi.org/10.1108/TG-09-2013-0033>.

- Uma, S., & Bougie, R. (2016). *Research methods for business* (7th Ed.). (E-book). Retrieved <https://books.google.co.ke/books?id=Ko6bCgAAQBAJ&printsec=frontcover&dq=res>
- United Nation. (2016). E-Government development index (EGDI): An overview. *Amman Stock Exchange*. Retrieved from <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2016>.
- Wakiriba, J. W., Ngahu, S., & Wagoki, J. (2014). Effects of financial controls on financial management in Kenya's public sector: A case of National government departments in Mirangine Sub-County, Nyandarua County. *Journal of Business and Management*. 16(10), 105–115. Retrieved from www.iosrjournals.org.
- Wangari, N. E. (2014). Influence of globalization on performance of small and medium sized enterprises in the ICT sector in Kenya (Up Master Thesis), University of Nairobi) Nairobi Kenya. Retrieved from <http://erepository.uonbi.ac.ke:8080/bitstream/handle/11295/76821/Wangari,Eva>.
- Watkins, J. A., & Dorotinsky, W. L. (2010). *Financial management information systems* (World bank Release). Retrieved from www.worldbank.org.
- Weeks, M. P. (2016). Influence of information technology practices in procurement in organization performance in public institutions in Kenya. *International Journal of Economics, Commerce and Management* (5), 484–502. Retrieved from <http://ijecm.co.uk/>.
- Wong, W. (2015 June 20). Public managers must also be leaders: The hollowing-out of leadership and public management reform in Hong Kong. *Asian Leadership in Policy and Governance* 24(3) 261-285. Retrieved from <https://doi.org/10.1108/S2053-769720150000024011>.
- World Bank. (2010). *Financial management information systems*. World Bank. Washington DC. Retrieved from <https://www.worldbank.org/en/topic/governance/brief/financial->

management-information-systems-fmis.

World Bank. (2015). *Kenya public expenditure review 2014*. World Bank Nairobi Kenya.

Retrieved from <https://www.worldbank.org/en/country/kenya/publication/kenya-public-expenditure-review-decision-time-spend-more-spend-smart>

World Bank. (2018). *Alternative paths to public financial management and public sector reform experiences from East Asia*. Retrieved from

<http://documents.worldbank.org/curated/en/160591530074821767/pdf/>

Zembar, R., & Turaşlı, N. K. (2016). Validity and reliability of data. *Journal of Education and Training Studies*. 4(2) 36-72 Retrieved from

<https://doi.org/10.11114/jets.v4i2.1156>

APPENDICES

APPENDIX I:

LETTER OF INTRODUCTION

Bonface Mutuma

Kenya Methodist University

P.O. Box 267

Meru

.....

Dear Sir/Madam,

RE: COLLECTION OF RESEARCH DATA

I am the above student pursuing a Master Degree in Business Administration – Finance option at Kenya Methodist University. Currently, I am carrying out a research and you have been identified as one of the collaborators and respondents in this study and kindly request for your assistance towards making this study a success.

I therefore kindly request you to take some time to respond to the attached questionnaire. I wish to assure you that your responses will be treated with confidentiality and will be used solely for the purpose of this study.

I thank you in advance for your time and responses. It will be appreciated if you can fill the questionnaire within the next 3 days to enable early finalization of the study.

Yours Sincerely

Bonface Mutuma

APPENDIX II

Research Questionnaire

This questionnaire is meant to collect data on effects of ICT adoption on financial management of Meru county government. The data collected is meant for a research study as a requirement for award of degree of masters of business administration of Kenya Methodist University. The information provided in this questionnaire will be used only for this study and not form any other purpose. Your cooperation is highly appreciated.

SECTION I: GENERAL INFORMATION

(Please fill as indicated)

- a) What is your gender? Male Female
- b) Years worked in the county Government in years.
- Less than 1 years
- 1 to 3 years
- 3 to 5 years
- More than 5 years
- c) Education level:
- Secondary school
- Diploma
- Bachelor's degree
- Masters' degree
- Doctorate

SECTION II: Effects of procurement automation on financial management

a) In your opinion do you agree that adoption of ICT has affected financial management in the county government of Meru? At a scale of 1-5 indicate with a tick

b) (1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) Strongly disagree

No	Statement	1	2	3	4	5
i.	Creation of paperless budgeting which is more verifiable and less bulky					
ii.	ICT has contributed to cost savings taking less time for budget preparation					
iii.	ICT has enhancing transparency on funds allocation and entire budget making process					
iv.	ICT has Improved on decision making during budget making by provision of immediate reports					
v.	Budgeting electronic module linking budgeting with availability of funds has enabled controls					
vi.	Enabled undertaking of only projects budgeted for hence reduction in pending bills					
vii.	Enabled integration of budgeting to long term strategic planning					

Section III Influence of revenue collection automation on financial management

Influence of revenue collection automation on financial management in Meru county government

a) To what extent do you agree with the following factors that revenue collection automation has influenced financial management In Meru County? At a scale of 1-5 indicate with a tick;

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) Strongly disagree

No	Statement	1	2	3	4	5
i.	ICT has enabled auto reconciliation of revenue collection to exchequer balance					
ii.	Automation has enable cost reduction by eliminating use of tickets and engaging less staff					
iii.	Automation has enhanced transparency by elimination of duplicate receipts					
iv.	Automation has improved on timely report generation for the purpose of decision making					
v.	There is equity and transparency in government available resource allocation to projects					
vi.	Elimination of use of revenue directly at source without going to the revenue fund					
vii.	Online monitoring of revenue collection					

Section IV influence of procurement automation on financial management

Influence of procurement process automation on financial management in Meru county government

a) To what extent do you agree with the following factors that procurement process automation has influenced financial management In Meru County? At a scale of 1-5

indicate with a tick; (1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) strongly disagree

No	Statement	1	2	3	4	5
i.	Procurement automation has enabled online tender advertisement					
ii.	The system has enables suppliers to check and apply for advertised enders online					
iii.	Automation has cut down on time used for tender evaluation and awarding					
iv.	Automation has enhanced transparency of tender process by elimination of tampering with the exercise manually					
v.	Automation has enabled linking of procurement and budgeted amounts					
vi.	The system has enabled the management to generate quick and up to date report regarding procurement process					
vii.	ICT has reduced the level of fraud during procurement process					

Section V influence of Cash management automation on financial management

Influence of cash management automation on financial management in Meru county government

- a) To what extent do you agree with the following factors that cash management automation has influenced financial management In Meru County? At a scale of 1-5

indicate with a tick; (1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) strongly disagree

No	Statement	1	2	3	4	5
i.	Cash management automation enables transfer funds efficiently and with certainty in the county					
ii.	Cash management automation enables organization to structure funds repositories so that the government always knows what funds are at its disposal and where they are and that it can move these funds at will.					
iii.	Cash management automation seek to improve execution by providing timely and accurate data for cash management and decision making					
iv.	Cash management automation seek to enhance confidence and credibility of the cash through greater transparency of information					
v.	Automation has enabled high level of cash accountability					
vi.	Cash management automation enables county leadership to understand the true cost of service delivered by the county per activity					
vii.	Through Cash management automation, the county finance department is able to reconcile transactions data in real-time					

SECTION VI – Financial Management

Influence of automation on financial management in Meru county government

- b) To what extent do you agree with the following factors that financial management has been influenced by automation In Meru County? At a scale of 5 indicate with a tick;

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) strongly disagree

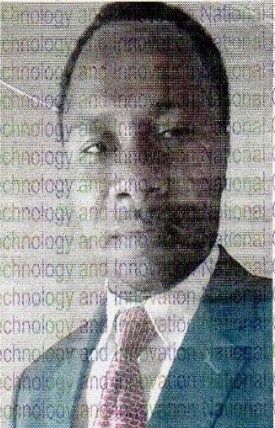
No	Statement	1	2	3	4	5
i.	Financial reporting has been influenced					
ii.	Able to mobilize funds in the government					
iii.	The system able to auto reconcile financial records					
iv.	The system able to improve on financial planning					
v.	Automation has eased the decision making process					
vi.	The system has improved the transparency on financial matters					
vii.	There is accountability on resource utilization					

APPENDIX III


THIS IS TO CERTIFY THAT: Permit No: **NACOSTI/P/19/74657/28677**
MR. BONFACE MUTUMA MUGAMBI Date Of Issue : **3rd April,2019**
of **KENYA METHODIST UNIVERSITY,** Fee Received : **Ksh 1000**
82-60200 MERU, has been permitted to
conduct research in Meru County

**on the topic: EFFECT OF INFORMATION
COMMUNICATION TECHNOLOGY
ADOPTION ON FINANCIAL MANAGEMENT
IN MERU COUNTY GOVERNMENT**

**for the period ending:
1st April,2020**



Applicant's Signature


**Director General
National Commission for Science,
Technology & Innovation**

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya

TEL: 020 400 7000, 0713 788787, 0735 404245

Email: dg@nacosti.go.ke, registry@nacosti.go.ke

Website: www.nacosti.go.ke



REPUBLIC OF KENYA

NACOSTI

National Commission for Science,

Technology and Innovation

RESEARCH LICENSE

Serial No.A 23883

CONDITIONS: see back page