INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM (IFMIS) AND FINANCIAL MANAGEMENT IN SELECTED LOCAL GOVERNMENTS IN UGANDA

A POSTGRADUATE DISSERTATION PRESENTED TO THE FACULTY OF BUSINESS ADMINISTRATION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE MASTER OF BUSINESS ADMINISTRATION

Uganda Martyrs University

Ssemanda Henry 2012-M102-20061

July, 2016

DEDICATION

I dedicate this work to my wife; Maria, and my children; Aloysius and Louis. Special dedication goes to my workmates at Ministry of Local Governments-Public Financial Management Office for their Professional support during my Postgraduate Carrier.

ACKNOWLEDGEMENTS

I'm deeply indebted to my supervisors; Mr. Kibrai Moses and Mr. Sempungu Godfrey, for their invaluable advice and supervision in the course of writing this report despite their busy schedule.

Special thanks goes to my Aunt; Margaret in USA for the financial, moral and spiritual support through my academic life. Ladies like her come rarely in life, and when they come, they deserve auto most attention. God alone can reward you because you are too special in my life. Thanks for showing and giving me the light. I'll live to cherish your love for me.

With my friends John Paul, Andrew, Henry, Flavia, Rachael, Robert, Martin and Gloria thank for being there during our class discussions.

Above it all I wish to express my gratitude to my wife and two children for their moral Support during my post graduate studies.

ABSTRACT

The overall objective of this study was to investigate the relationship between Integrated Financial Management Information Systems (IFMIS) and Financial Management in local governments. Particularly, the study sought to assess the relationship between data inputs, data processing and outputs of IFMIS and Financial Management in local governments. This study adopted a survey/time dimension approach/design involving both qualitative and quantitative methods which allowed the researcher to collect a variety of information and in turn achieve validity and reliability. The investigation was based on the Primary data collected both qualitatively and quantitatively. Variations and associations in respondent's characteristics of sex, age, marital status, education and the study themes of IFMIS inputs, processes and output were investigated in relation to Financial Management(the dependent variable) using the Pearson correlation and linear regression.

The findings indicate that the majority of respondents were males with 65%, predominantly married (74.4%), and aged above 35 years (86%). At the bivariate level it was observed that at a 95 percent level of significance: all the themes were significantly related to financial management (p<0.05). At the multivariate level, there is a significant relationship between financial management and IFMIS processing (p=0.01) and that, the more IFMIS processing procedures are streamlined and strengthened, the better results in financial management (coef.=0.539). However, there was no significant relationship between IFMIS input, IFMIS output in relation to financial management (P>0.05).

This findings therefore meant that, efforts geared towards improving and masterly of IFMIS Processes/Processing Functionalities should be emphasized so as to realize better financial management at Local Governments. Thus the researcher recommends that the system support arrangement and trainings for IFMIS should be geared toward users' understanding of the various processes and implication, given the system design to address the intended outputs during financial management.

TABLE OF CONTENTS

DECLARATION	I
APPROVAL	П
DEDICATION	III
ACKNOWLEDGEMENTS	IV
ABSTRACT	V
TABLE OF CONTENTS	VI
LIST OF TABLES	X
LIST OF FIGURES	XI
ABBREVIATIONS	XII
CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Back ground to the study	1
1.3 Statement of the problem	3
1.4 Objectives	4
1.4.1 The general objective of the study	4
1.5 Research questions	4
1.6 scope of the study	4
1.7 Justification of the study	5
1.8 Significance of the study	6
1.9 Conceptual frame work	7
CHAPTER TWO	
REVIEW OF RELATED LITERATURE	
2.1 Introduction	
2.2 Theoretical frame work	

2.3 Integrated Financial Management IFMIS	12
2.3.6 Rationales for the increasing use of integrated information technologies	26
2.4 IFMIS as a control system	27
2.5 Financial Management	
2.6 The Local Governments	
2.7 IFMIS and financial management	
2.8 Conclusion	
CHAPTER THREE	35
RESEARCH METHODOLOGY	35
3.1 Introduction	35
3.2 Research design	35
3.2 Research approaches	
3.3 Study population	
3.4 Sample size	
3.5 Data collection methods and instruments	
3.6 Data analysis and presentation	40
3.7 Quality control	42
3.8 Ethical considerations	44
3.9 Limitations to the study	44
3.10 Conclusion	45
CHAPTER FOUR	
ANALYSIS, PRESENTATION, DISCUSSION OF THE FINDINGS	
4.1 Introduction	46
4.2 Back ground characteristics of respondents	46
4.3 Descriptive statistics for ifmis inputs	
4.4 IFMIS processing	54
4.5 IFMIS outputs	60

4.6 Fi	nancial Management	.63
4.7	Summary statistics on latent constructs	.67
4.8	Inter latent construct correlations	. 68
4.9	Multivariate analysis results	. 69
4.10	Diagnostic tests	.72
CHAI	PTER FIVE	.74
SUM	MARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	.74
5.1	Introduction	.74
5.2	Summary and conclusions	.74
5.2.1 govern	The relationship between ifmis data inputs and financial management in local nments.	.74
5.2.2	The relationship between ifmis data processing and financial management in local nment.	
5.2.3 govern	The relationship between ifmis outputs and financial management in local nment.	.75
5.3	conclusions	.75
5.3.1 local g	The relationship between financial data inputs in ifmis and financial management in governments	.75
5.3.2 govern	The relationship between ifmis data processing and financial management in local nments	.75
5.3.3 govern	The relationship between ifmis outputs and financial management in local nment	.76
5.4	Implications	.76
5.5	Recommendations	.76
5.5.1	IFMIS financial data inputs and financial management in local governments	.76
5.5.2	IFMIS data processing and financial management in local government.	.76
5.5.3	IFMIS outputs and financial management in local government.	.77
5.6	Recommendations for further research	.77

REFERENCES	78
APPENDIX I:	
TABLE FOR DETERMING SIZE FOR A GIVEN POPULATION	
APPENDIX II	86
QUESTIONNAIRE	

LIST OF TABLES

Table 3.1: The population category and Population	37
Table 3.2: the population category, total population, sample and sampling methods	38
Table 3.3 Content Validity Index results	42
Table 3.4: Reliability of Latent constructs	43
Table 4.1: Descriptive summary of respondents' characteristics	47
Table 4.2: Descriptive statistics for IFMIS inputs	49
Table 4.3: Descriptive summary of responses by IFMIS data processing	54
Table 4.4: Descriptive summary of responses by IFMIS Outputs	60
Table 4.5: Descriptive summary of responses on IFMIS and Financial Management	63
Table 4.6: Summary statistics on Latent constructs	68
Table 4.7: Inter latent construct correlations	68
Table 4.8: Determinants of Financial management	70
Table 4.9: Diagnostic test	72

LIST OF FIGURES

Figure 1.1 : Showing the relationship between IFMIS and Financial Management9
Figure 2.1: The compartmentalized Diagram below shows the relationship between the two
variables given the Information, Communication and Systems Theory11
Figure 2.2: The Diagram below shows the operating environment of IFMIS of a Local
Government
Figure 2.3: The operating Cycle of IFMIS
Figure 4.1: financial data inputs in IFMIS in local governments
Figure 4.2: IFMIS data processing in local governments
Figure 4. 3: financial data outputs in IFMIS in local governments
Figure 4. 4: IFMIS in financial management in local governments

ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants.		
AG	Accountant General		
AICPA	American Institute of Certified Public Accountants.		
BPEMS	Budget Public Expenditure Management System		
CAGD	Controller and Accountant General's Department		
CAO	Chief Administrative Officer		
DC	Developing Countries		
CFO	Chief Finance Officer		
DLG	District Local Government		
DLG	District Local Government		
DPU	District Planning Unit		
EFT	Electronic Funds Transfer		
EFTs	Electronic Funds Transfers		
FINMAP	Financial Management and Accountability Program		
GAAP	Generally Accepted Accounting Principles.		
GOG	Government of Ghana		
GOL	Government of Liberia		
GOU	Government of Uganda		
GRN	Good Received Note		
HOD	Head of Department		
IFMIS	Integrated Financial Management Information Systems		
IGG	Inspector General of Government		
ISA	International Standard of Auditing.		
LG	Local Government		
LPO	Local Purchase Order		
MOF	Ministry of Finance		
MoFPEP	Ministry of Finance and Economic Planning and Economic Development		
MoLG	Ministry of Local Government		
MTEF	Medium Term Expenditure Framework		
OAG	Office of the Auditor General		
OBT	Output Budgeting Tool		
PEM	Public Expenditure Management		
PFM	Public Financial Management		
PFMR	Public Financial Management Reforms		
PPDA	Public Procurement of Disposal Act		
SD	Stand Deviation		
ICT	Information Communication Technology		
	mornation communication reenitology		

CHAPTER ONE INTRODUCTION

1.1 Introduction

The study examines the relationship between Integrated Financial Management Information System (IFMIS) and Financial Management in Local Government in Uganda.

Nsubuga (2012) states that whereas Local Governments in Uganda are mandated to manage finances on behalf of the local citizenry in Uganda, they must serve with adequate resources to remain meaningful and relevant to the communities.

The Integrated Financial Management System has been adopted with the aim of achieving effective Financial Management through integrated timely and accurate information to enhance effective decision making (Granlund, 2002). And coupled with the increasing forces of globalization for example automation of transaction processes at all stages of production and service delivery, there has been increasing advocacy for the adoption of automated information systems in financial management in the public sector (Pallot, 2000). Nonetheless, this study aimed at examining IFMIS and establishing its relationship with financial management in local governments.

1.2 Back ground to the Study

Given the global trends in governments operations, developing countries have also been brought to the bandwagon of the adoption of the automated financial management systems, as the best practices and specifically in local governments (Sachs, 2008). The dominating role of international aid agencies has been instrumental in the adoption of automated financial management systems in local governments of developing countries (Dorotinsky, 2003).

However, these systems present a number of problems, including Functional duplication and technological proliferation that has a negative impact on the cost-effective spending of public funds, difficulties in the implementation of uniform norms and standards across systems and operations, poor inherent systems of inter-operability and aggregating of data that seriously compromise operational integrity and the generation of management information, Difficulty in synchronising the implementation of new legislation and regulations with the capabilities of multiple systems, each on its independent evolutionary path (Deventer, 2012).

Other than promising the provision of timely and accurate information to support decisionmaking, the automated financial systems in developing countries are construed as controls against corruption and rent-seeking practices (Khemani, 2005). In Uganda, the aim of the Financial Management and Accountability Program (FINMAP), in the implementation of IFMIS, is improving the budgeting, financial management, and statistical monitoring in government agencies and local governments (World Bank, 1999).

In government operations, IFMIS refers to the computerization of public financial management; from budget preparation and execution of accounting and reporting, with the help of integrated systems. (Khawlhring, 2008). Rodin-Brown (2013) states that the basic features of IFMIS are; Standard data classification for recording financial events, Internal controls over data entry, transaction processing and reporting, common processes for similar transactions and a system design that eliminates unnecessary duplication of data entry.

Though there are other definitions of financial management in line with financial markets and financial institution, this research looks at financial management in the sphere of government operations as defined by (Foster et al, 2011) and they defines financial management as those services that involve cash flow or non-cash flow movements meant to facilitate other government departments in reaching out or interacting with the public. According to Channan (2013), such activities in financial management include Tax Management, Contracts Management, Budgeting, Cash Management, Payment Processing, Payroll processing, Inventory and Asset management, and Financial Reporting; and Ministry of Finance at Central Government Level or Finance Department at sector, vote or agency Level are the prime departments for financial management. And in striving to have better financial management, the Planning Unit, Procumbent Unit and the Internal Audit Department always work closely with the Finance Office (Kyalimpa, 2010).

Efforts and resources meant for improvement of financial management have in many cases been diverted to facilitate litigation and consequently (as in the case for many District Local Governments) pay compensation and damages granted by courts for lost cases against civil servants. In consequence Sub-national governments 'assets have been impounded through court orders and at times bank accounts garnished(Kiwanuka, 2012). Given the challenges, GOU has embarking on a number Public Financial Management reforms of which IFMIS is one of the leading tools in order to mitigate the challenges in financial management (FINMAP 11 Annual Report, 2012)

There is a considerable debate as to whether IFMIS implementation has improved financial management in the operation of the Local Governments because most of the available literature is based on Central Government Operations (Seruyange, 2013). Furthermore, most recent researches about IFMIS have not assessed the Local Government views about it, in relationship to financial managment, especially in developing Countries; they mostly look at IFMIS in line with the objectives its implementation by GoU (Buyungo, 2013). It's upon this background that this research is set out to investigate the relationship between IFMIS and Financial Management.

1.3 Statement of the problem

Developing countries are increasingly exploring methods and systems to modernise and improve financial management (Chene, 2009). The Integrated Financial Management Information System (IFMIS) is one of the financial management reform tools adopted, which is aimed at promotion of Value for money, efficiency, effectiveness, accountability, transparency, security of data management and comprehensive processes in financial management in Government operations (Cooper, 2009). In the same spirit, the government of Uganda is in a process of implementing a Comprehensive financial management reform programme by use of IFMIS to improve the budgeting, revenue and expenditure management processes at the central and local government levels. In Uganda so far, IFMIS has been implemented in forty eight Local governments (FINMAP Annual report, FY 2012/13).

Despite the endeavours by GOU to implement IFMIS as a public financial management reforms in-order to mitigate the challenges in financial management including Tax Management, Contracts Management, Budgeting, Cash Management, Payment Processing, and Payroll processing, Inventory Management, Asset management, and Financial Reporting, a number of short coming are still occurring. For example, delays in production of financial reports, delays in payment to beneficiaries, Corruptions scandals like the 2012 Prime Minister's Office Scandal and the 2011 Bicycle Scandal in the Ministry of Local government (Inspector General of Government, 2013). Further still, there are reported cases of ghost payments on some IFMIS local government bank accounts, that are not known to the management of local governments, neither traceable in audit trail of the IFMIS data base at the same Local government, failure to withhold Tax on Suppliers and IFMIS items not being linking properly with the output budgets (OAG Annual Report, FY 2012/2013).

It's upon this background that this research was conducted to investigate whether IFMIS explains and addresses the challenges in financial management of Local Governments of Uganda.

1.4 Objectives

The study was guided by the following objectives:

1.4.1 The General Objective of the Study

The study established the relationship between IFMIS and Financial Management in Local Government of Uganda.

1.4.2 Specific Objectives of the Study

- 1. To establish the relationship between financial data inputs in IFMIS and financial management in local governments.
- 2. To establish the relationship between IFMIS data processing and financial management in local government.
- 3. To establish the relationship between IFMIS Outputs and financial management in local government.

1.5 Research Questions

- 1. What is the relationship between financial data inputs in IFMIS and financial management in local governments?
- 2. What is the relationship between data processing in IFMIS and Financial Management in local government?
- 3. What is the relationship between IFMIS Outputs and Financial Management in local government?

1.6 Scope of the study

1.6.1 Subject scope

This research acknowledged that IFMIS can be analysed in the context of its objectives by FINMAP/MoFPED, that's to say enhancement of transparency, accountability and serve as a

deterrent to corruption and fraud(FINMAP Annual Report, FY 2012/13), however this research looked and examined IFMIS in the perspectives of System Data Inputs, Information processing and controls, and system outputs, in relations to financial management focused on value for money, efficiency, effectiveness and economy.

Further this research acknowledges other definition of financial management in other contexts including those offered by financial institutions for example Loans, savings, creditcard services, accountancy consumer-finance, stock brokerages and investment funds(Freddie, 2008). However, this research looked at financial management in view of Government operations and as defined by Channan (2013) that financial management includes those activities that involve the management of cash flow or non-cash flow movements meant to facilitate other government departments in reaching out or interacting with the local citizens. And accordingly such activities include Tax/Revenue Management, Contracts Management, Budgeting, Cash Management, Payment Processing, Payroll processing, Inventory and Asset management, and Financial Reporting.

Although the study recognizes moderating valuables which are critical in determining the relationship between IFMIS and financial management, the study does not examine them.

1.6.2 Geographical scope

The study was conducted at Mpigi DLG, Masaka DLG, Jinja DLG, and Mbale DLG in Uganda. The reason for choosing these districts is that, these DLGs have operated IFMIS for more than seven years. They are also amongst the first Districts where IFMIS was implemented. Mpigi and Masaka local governments are located in Central Uganda. Mbale and Jinja are located in Easter Uganda.

1.6.3 Time Scope

The selected DLGs have been using IFMIS since 2005 to 2015 for financial management. The study took a time scope of 10 years.

1.7 Justification of the study

There has been a number of corruption scandals and embezzlement of public funds, associated with public offices during the past 10years. For example: the ID Scandal 2010, the Microfinance and Specioza Kazibwe 2011, the Pension's scandal 2012, the Valley Dam

Scandal 2003 and the Global Fund Scandal 2005. Therefore a number of Government stake holders who are interested in the reports about the financial movements, value for money reports, and accountability in various government institutions (Okello, 2012).

Also Galabuzi (2010) states that given the looming competition owing to globalization and technical advancement in communication and information technology, it's crucial that governments improve their efficiency and effectiveness in financial management. He further states that, in the currently age, efficiency and effectiveness in financial management cannot be attained without embracing information systems and he gives examples that the error of issuing cheques and payment by cash is fading away, manually prepared accounts are being replaced by automated Financial System Reports. Where governments are increasingly looking into Automation/ computerization of their financial operations, there is still a lot to be done as a number of computerized systems are based on assumptions that system operators are trustable (Kawuki, 2011).

The Study will thus help government and other stakeholders to see if the commitment and the fruits that come along with implementation of IFMIS in local governments, are worth the investment and then make informed decisions. The study will also assist students, and other academicians who wish to carry out research in this field as a reference to do further studies.

1.8 Significance of the study

The study will be beneficial to policy makers in formulating policies regarding financial management as well as upgrading financial management systems (Mugumya 2010). Tugume(2012) highlights that policy makers that need such information include the legislature- Parliament for formulation of government laws, MoFPED, the Accountant General and Auditor General for formulating implementation structures (Tugume, 2009). And with current move to make public financial reforms (PFM) by governments especially in Africa, the research will help financial management specialist as a centre of reference to address suggested reforms (Okello, 2011).

It will guide future researchers in financial management (Serebe, 2009). With the current reforms in public administration and PFM in terms of law and structures, a number of researchers are being attracted to the study area (Kawuma, 2009). Therefore this research will guide such researchers.

It will provide an insight to the researcher about the operation of IFMIS and financial management in public sector management (Mugumya, 2011). The implementation of IFMIS for financial management in local governments of Uganda is rapid but a number of users and beneficiaries are have not yet finalized with the operations and its work environment (Katusabe, 2012). This research will therefore provide a deeper understanding of IFMIS as a public financial management tool (Katumba, 2010).

1.9 Conceptual Frame work

A conceptual framework is an analytical tool with several variations and contexts (Berlin, 1997). It acted as the benchmark of the research, and will helped the Researcher to remain focused on the research objectives.

Information Systems are normally building on a generic interrelated cycle and model of Inputs, Processing and then out puts (Kasumba 2012).

Likewise, Kakeeto (2013) explains that IFMIS take a model of Data Input, Data processing and Outputs; built on modules that address the challenges of financial management and the embedded processes. He further states that these modules include Budgeting, Revenue Management, Cash Management, Payables, Purchasing Management, Pay roll Management, Receivables Management, Assets Management and Inventory Management. All these module are interlinked through the general Ledger Module that facilities production of financial reports, Exceptional Reports, generations of EFTs, Receipts, LPOs, GRNs, and Payment Vouchers. It's important to mark some module have direct inputs, processing and outputs as other depend on other modules for processing and outputs.

According to Otim (2012), IFMIS Data inputs includes departmental activity budgets that are consolidation into operational budget called the initial budget, Release Budget and then Vote on Account. Otim further states these budgets are coded into a 38 numerical digits format that is readable for IFMIS and then uploaded onto the system in order to facilitate and act as a control tool for receipting, purchasing and payment processing for the various departments in Local Government. He finally gives other IFMIS input information including Customer details, supplier details and employee details, Vendor Contracts, Employee Invoices, Supplier Invoices, Purchase Requisition, Revenue Assessments and Receipts/Income Details. Data Input feeds into Data processing.

According to Nsiime(2013), IFMIS Data processes include, budget check and funds inquiry, customer invoice processing, receipts processing, purchase requisition processing, payroll processing, staff advance processing, LPO processing, GRN processing, payment processing, bank reconciliations, inventory issues, fixed assets requisitions and journal processes. He further states that other processes include receivables' transfers, Payables' transfer, Receipts' transfer and General journal transfers to General Ledger in order to General ledger integrate IFMIS outputs.

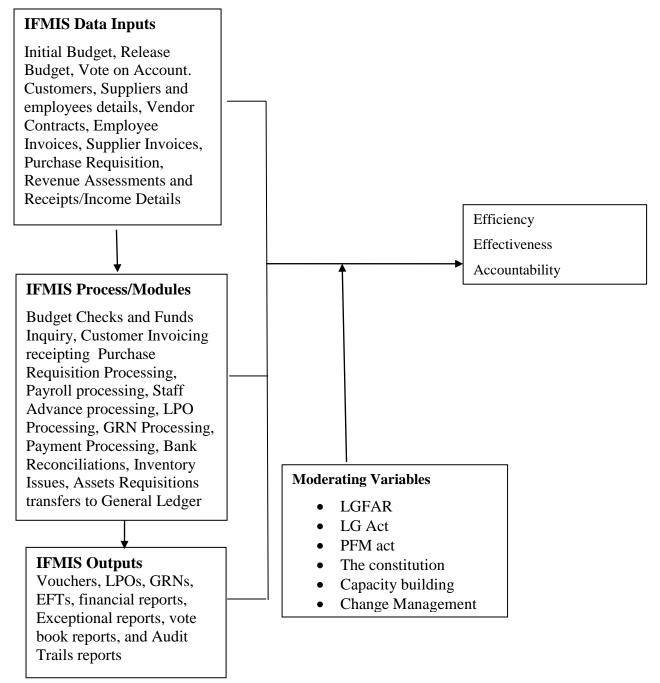
The Out puts of IFMIS include Receipt Vouchers, Payment Vouchers, LPOs, GRNs, EFTs, financial reports, Exceptional reports, vote book reports, Bank Reconciliation Reports and Audit Trails reports (Segawa, 2012).

Otim(2013), states that before implementation, all the Inputs, Processes and Outputs in financial management, were analysed, designed and programmed through the Oracle Software and computer Hard ware including Computers sets, Switches, Routers, Printers and Paper in order to form IFMIS. The system design was guided and done in respect to the LG Structure, LG Act 2010, the LG management hierarchy of transactional approval and responsibilities, the LG finance and Accounting Regulations 2007 and the PFM Act March 2015.

Muwanga (2013), complement this by stating that all the pre- implementation design and activities were done in order to bring about efficiency, effectiveness and accountability in Budgeting, Revenue Management, Purchasing, Payable Management, Recievable Management, Cash Management, General Ledger and Financial Reporting, which are the various aspects of financial management in a Local government, given the Legal Approach. He lastly state that given the former manual approach to financial management, other moderating factors are key in conceptualising IFMIS and these include Change Management and employee competence on the operation of the System.

Figure 1.1: Showing the relationship between IFMIS and Financial Management.

Independent VariableDependent VariableIFMISFinancial Management



The Conceptual Framework Diagram has been adopted and modified from Data Structure Diagram by Bachman, (1997) that is used to design data with a network or relational "logical" model, separating the data model from the way the data is stored in a system(Isaiah, 1997).

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter presents a review of related literature on IFMIS and Financial Management based on what other scholars and prominent researchers have observed and found. It was done with a view of throwing more light on the study variables and identifying the literature gaps.

2.2 Theoretical Frame work.

2.2.1 Information, Communication and Systems Theory

According to Fisher (1962), the concept of information theory is closely related to notions of communication, control, data, form, instruction, knowledge, meaning, mental stimulus, pattern, perception, and representation media. Information is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the person receiving it. Information management entails organizing, retrieving, acquiring and maintaining information in a medium. Information is any type of pattern that influences the formation or transformation of other patterns. In this sense, there is no need for a conscious mind to perceive, much less appreciate, the pattern of communication. Fisher says that information is the amount of information that a message carries about an unobservable parameter. It can be computed from knowledge of the likelihood function defining the system.

Bill (2001) said that communication theory provides a numerical measure of the uncertainty of an outcome. For example, we can say that "the signal contains thousands of bits of information". Communication theory tends to use the concept of information entropy, generally attributed Information Communication Technology (ICT) which is a general term that describes any technology that helps to produce, manipulate, communicate or disseminate information. ICT merges computing with high-speed communications links carrying data, sound and video. ICT can also be defined as an automatic acquisition, storage, manipulation, movement, control, display, switching interchange, transmission or reception of data or information. The two important major components of ICT are computers and telecommunications (Michale, 2001).

Recent developments in the fields of communications and information technology are indeed revolutionary in nature. Information and knowledge are expanding in quantity and accessibility. In many fields future decision-makers will be presented with unprecedented new tools for development. In such fields as agriculture, health, education, human resources and environmental management, or transport and business development, the consequences could be really quite revolutionary. Communications and information technology have enormous potential, especially for developing countries, and in furthering sustainable development (Annan, 1997).

In Systems theory, Wang (2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating (due to feedback) in the system can be called information. In other words, it can be said that information in this sense is something potentially perceived as representation, though not created or presented for that purpose. According to Kang'ethe (2002), a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives. The writer further observes the need to have control elements to ensure that the process gives the desired level of out-put and avoid or reduce wastage. The need for efficiency and effectiveness therefore brings forth another need of ensuring harmony and synergy between the human resource as the core resource that controls other resources on the one hand and the other tools of trade, in particular modern ICT on the other hand so as to realize the objectives of office secretarial management.

When computer and communication technologies are combined, the result is information technology systems, or "InfoTech". Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of information technology as a whole, it is noted that the use of computers and information are associated.

Figure 2. 1: The compartmentalized Diagram below shows the relationship between the
two variables given the Information, Communication and Systems Theory

Data	Efficiency and
Processing	 effectiveness
Out put	

Source: Adopted and modified from Information, Communication and Systems Theory In this study, the theory can be clearly identified since the financial management will be directly reflection of the efficiency and effectiveness that comes with integrated financial management systems arms of inputs, processes and outputs. Where the arms are of quality and positive; so will the financial management and vice versa. Given the integration that comes with IFMIS, through the various Modules therein, then GOU will achieve value for money, efficiency and effectiveness in the financial management at Local governments.

2.3 Integrated Financial Management IFMIS

There are a number of authors that have defined IFMIS. For instance, Dorototinksy (2003) argued that: IFMIS consists of several subsystems, which plan, process and report public financial resources. The basic subsystems include accounting, budgeting, cash management, debt management and related core treasury systems." Similarly, Khemani (2005), observed that that IFMIS refers to computerization of public expenditure processes including, budget formulation, budget execute and accounting with the help of a fully integrated systems for financial management in other departments.

The above views are shared by some aid agencies. For instance, USAID (2008) maintains that IFMIS enable timely and efficient financial management in the Public Interest, data for decision-making, strengthening financial control, enhancing transparency and accountability. Specifically, USAID (2008) defines IFMIS as an information system that tracks financial events and summarizes financial information. This is cemented by Luboobi (2010), when he states that the increased use of integrated information systems pervades private and public sector organizations. In the public sector, various authors observed the increasing use and impact of information technologies on governments' activities (Manson et al, 2012).

According to Diamond (2006), IFMIS usually refers to computerisation of processes in the processes involved financial management, including budget formulation, budget execution, and accounting with the help of a fully integrated system.

According to Rozner (2008), an IFMIS is an information system that tracks financial events and summarises financial information. It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed (Rodin-Brown, 2008). In the sphere of government operations, IFMIS refers to the computerisation of processes including Tax/Revenue Management, Contracts Management, Budgeting, Cash Management, Payments' Processing, Payroll processing, Inventory and Asset management, General ledger and Financial Reporting, with the help of an integrated system for the purpose of efficient and effective financial management. (Lianzuala,2009). Rodin-Brown (2008) identifies IFMIS cycle and classifies, Internal controls over data entry, transaction processing and reporting, and common processes for similar transactions and a system design that eliminates unnecessary duplication of data entry, as the basic features that are necessary for integration.

2.3.1 Background of IFMIS in the Public Sector

In most developing countries (DCs), budget execution and accounting processes are either manual or supported by very old and inadequately maintained software applications (Diamond, 2005). This has had deleterious effects on the functioning of their Public Expenditure Management systems that are often not adequately appreciated (Pokar, 2006). The consequent lack of reliable and timely revenue and expenditure data for budgeting/planning, monitoring, expenditure control, and reporting has negatively impacted budget execution (Jack, 2006). The results have been a poorly controlled commitment of government resources, often resulting in a large build-up of arrears; excessive borrowing, pushing up interest rates and crowding out private-sector investment; and misallocation of resources, undermining the effectiveness and efficiency of service delivery (Diamond, 2005). Further, Local Governments have found it difficult to provide an accurate, complete, and transparent account of their financial position to Local Councils or to other interested parties, including donors and the general public (Moore, 2010). Diamond 2005, further states that this lack of information has hindered transparency and the enforcement of accountability in local government, and has only contributed to the perceived governance problems in many of these countries. In light of these adverse developments, it is perhaps not surprising that many district councils have pressed for, or have been pressed into, adopting integrated financial management information system projects to strengthen their Public Expenditure Management systems (Suhas, 2010). The establishment and adoption of IFMIS has consequently become an important benchmark for the Local Government reform agenda, often regarded as a precondition for achieving effective financial management and budgetary resources (Kyege, 2012).

In the past twenty years, developing countries (DCs) have been encouraged to reform systems on financial management and have increasingly embarked on major projects to computerize their government operations (World Bank, 2013). Most popular among these have been projects to computerize government accounting and payment operations, by introducing government financial management information systems (FMISs) based on various accounting software (Joshi, 2012).

The Tanzanian Government began implementing IFMIS in FY 1998/99 (Juma, 2011). The government decided to introduce IFMIS in ten selected MDAs and under this system, a central server was placed at the Treasury (in the Office of the Accountant General) to which users were connected by a dedicated network (Khemani, 2005). Also work stations were provided for each of the MDAs from which they could access the system and each MDA had its own database held in the omnibus database in the central server. (Njathika, 2003). MDAs' transactions automatically update the database in real time, and thus the general ledgers reflect the real position of balances at any particular point. By the end of 2000 there were over 500 users of the system at more than 85 sites throughout Tanzania and the system has now become the generic public sector financial management system used by the entire public sector (Ndayizeye, 2012). At the local government level, the system has been introduced to 32 local authorities, and a roll-out to an additional 30 authorities was expected to be completed by the end of 2014(Juma, 2013). The software package for the IFMIS is a medium-sized financial management and accounting Package- Platinum S SQL Financials from EPICOR (Msechu, 2012). Msechu further states that at present, the IFMIS is only using modules, namely General Ledger, Accounts Payable, Accounts Receivable, Cash Management, Purchase Order, Multi-currency, Budget Module, Foreign exchange report writer, and Crystal report writer. The accounts are essentially maintained on a cash basis, though the authorities are planning to use other modules like Asset and Inventory Management, and are working toward accrual accounting (Imbyandumi, 2006). According to Diamond, (2009) IFMIS in Tanzania appears to be the most successfully implemented system in Anglophone African countries and it's implementation was distinguished by; an initial review of the PEM processes affecting budget execution, and the introduction of an improved expenditure control framework and chart of accounts, embedding the reform process in the MOF combined with an emphasis on capacity building, particularly in the AG's department, through training, restructuring, and computerization, Revising, developing and managing enabling legislation, accounting principles, systems and organizational arrangements

necessary for the management of government budgetary and accounting systems, Selecting a mid-range commercial software package, supported by a high quality local consultancy company, an EPICOR partner, that provided a strong support to the implementation process including training, Availability of adequate donors' resources, combined with very experienced, international and local consultants and a solid backing at the political level, which trickled down to the management level, with both political and management commitment being strong throughout the entire reform process.

In Ghana, the government launched an ambitious multi-faceted Public Financial Management Reform Program (PUFMARP) in 1996, which aimed to introduce comprehensive reforms to the budget and expenditure management processes (Ayittey, 1999). The main components of the PUFMARP include the introduction of a medium-term expenditure framework (MTEF) and the development of a computerized government information system for financial management, termed the Budget and Public Expenditure Management System (Kwame, 2004). In the early years of the reform program, there was a mismatch between the (fast) rate of progress with the MTEF and the (slow) progress on the BPEMS and the faster development of the MTEF, relative to the BPEMS, caused significant accounting and reporting problems(Kweme, 2010). According to Kwegyir(2011), the experience of the design, development, and pilot implementation of the BPEMS has not been satisfying and the design of the BPEMS, the existing manual budget execution and accounting processes seem to have been automated to a large extent, without consideration of whether there was a better and more efficient method of achieving the required result. This is further emphasized by Adarkwa, 2013 when he states that after considerable delays, the system was installed, on a pilot basis, at the MOF and the Controller and Accountant General's Department (CAGD) in January 2003. The roll-out for additional ministries of Education and Health (planned before the end of 2003) was carried out in March/April 2004. Despite substantial time spent in developing and customizing the software application, the pilot implementation and the roll-out of the system did not progress well, and the MOF and the CAGD are not fully satisfied with the BPEMS reporting system, and this has been a major area of dispute between the government and the software team(Appiah,2012). The overarching concern is the significant delay, limited involvement and ownership of the BPEMS by the various stakeholders in the design and development of the BPEMS, the development process was largely driven by consultants and donors in the formative period of the project (Adjaye, 2010). And further challenges, the BPEMS had to be restructured several times, and

encountered significant design and implementation problems and delays, the project implementation unit was also restructured several times, local capacity and know-how has always been and is still the major issue, and the government still relies on the assistance of local vendors. Consequently several significant issues need to be addressed before BPEMS can be made fully functional and rolled out (Aggrey 2010).

In Malawi the Integrated Financial Management Information System (IFMIS) was introduced in 1995 to computerize the budgetary and accounting processes (Moore, 2010). The design and procurement process was completed in 2000 with the purchase of a package solution, and the pilot run of the customized software started in 2001(Joshi, 2011). According to Khemani, 2012 the pilot implementation did not follow the standard implementation methodology for this type of software as some of the planned core modules for implementation were not been completed, while others were not implemented at all. Joshi further states that the project encountered numerous difficulties including: the project implementation team not being well resourced, and being dismantled even before the implementation was completed, Change management and communication activities did not receive adequate attention, and there were inconsistent views within the implementation team and implementing ministries, the software support arrangements were changed over the years, and there have been various contracts for implementation activities, some of the contractual work was not been properly fulfilled in time, the auditing aspects of the system was not been adequately planned and tested for live operations, a fast review of the system conducted by the AG with the help of an outside expert in July 2004 revealed a number of problems with the functionality of the system; these problems included serious deficiencies in expenditure control and tracking processes. In general, the implementation phase did not progressed at an expected rate in Malawi, primarily because of clearly limited involvement and some neglect of the system by the main players, including the MOF, AG and pilot ministries (Diamond, 2009).

In 1997, the government of Kenya begun to implement a project on the strengthening of government finance and accounting functions to improve financial management, accountability, and transparency of public funds (Oketch, 2011). IFMIS was evaluated to be the best tool to be adopted for the implementation of the project (Suhas, 2010). During the first two phases over the first three years, a number of diagnostic reviews were conducted and a Financial Management Information Systems Strategy was developed (Chege, 2012). Following a procurement delay of almost two years, a contract for the purchase of the software implementation was finally awarded during late 2002. Hardware procurement was

undertaken separately from the software (Salim, 2010). The pilot phase started with the setting up of core procurement and accounting modules in the treasury as well as two pilot ministries during 2003/04(Kyaitu, 2011).

In Liberia where IFMIS has just been implemented in government departments in 2011, IFMIS is based on the existing PFM reform landscape and the challenges which have been identified, with the rationale being the focus of reforms on the objective rather than the administrative component, the strategy of was of implication was categorized within thematic areas including , Enhancing Budget Planning Systems, Coverage and Credibility, Strengthening PFM Legal Framework and Budget Execution, Revenue Mobilization and Administration, Enhancing transparency and Accountability, Program Governance and Project Management(GoL-MoF-PFMCU-Annual Report, 2012).

2.3.2 Background of IFMIS in Uganda

According to FINMAP Annual Report (2009), IFMIS in Uganda forms part of the broader reforms in Financial Management of the Ugandan government, which started in 1997. The reform process was executed in four phases. According to the same report, the first phase (1997-2000) entailed the introduction of Medium-Term Expenditure Frameworks (MTEF) and a new classification system compatible with Government Financial Chart of Accounts. In the second phase the Accounting Standards Board was introduced with an aim of promoting and supporting efficiency and effectiveness public expenditure management. The same report further states that in the third phase, government introduced a framework for Public Private Partnerships (PPP) and additional frameworks and policies were provided in areas such as Information Systems. In addition, a risk management framework was also developed, whilst the latest phase began in 2003 with the commencement of the project for an IFMIS (FINMAP Annual Report, 2012).

According to the MoFEP Annual Report (2011), The IFMIS implementation project in Uganda, was a priority initiative led by the MoFED and AG through FINMAP to review and upgrade the government's transverse information technology (IT) systems, and one of the FINMAP's objective was to enhance the integrity and effectiveness of expenditure management and performance reporting in order to ensure effective financial Management. According FINMAP (2011), GoU defined transverse system for integrations, as those general administrative systems required by all Government Ministries, Agencies and Local

Governments and the include, financial management, Human resource management, Integrated supply chain management (including asset and procurement management and Related business intelligence, audit and decision systems.

The Ugandan Government currently owns and operates a large compendium of systems in the transverse systems arena such as, The Integrated Financial Management System, The Basic Accounting System which is cash accounting systems, The Personnel and Salaries Management System (PERSAL), which can be described as a payroll system, The Logistical Information System (LOGIS), which supports the asset management and supply chain functions (AG, 2011)

According to Katende (2015) the main reasons for the challenges that come along with the implementation of IFMIS are the following: Aging technologies reaching the end of their life-span, Systems are fragmented and data integration is difficult, Economies of scale are not being realised, New functional requirements arising from new legislation such as the Public Finance Management Act 2015 or regulations (such as accrual accounting for lower local governments) are difficult to implement, Increasing support and maintenance costs of aging technologies and inability to take advantage of new technologies such as web-services to improve financial management . Thus, based on the above, one can assert that the longer these challenges not addressed the more additional applications of IFMIS will be phased out and the more difficult it will become to rationalize government Information Technology in Uganda(Mutuunzi, 2011).

In order to give effect and to address the challenges in implementation of in Information Systems in GoU, Cabinet approved a cabinet memo (resolution) that the transversal systems, namely, Supply Chain Management, Human Resources, Finance and Business Intelligence, should be replaced with on system (now IFMIS) with aims of integrating the different transversal systems for a better operation. (MoFED Annual Report, 2012).

The sheer size and complexity of an Integrated Financial Management Information System (IFMIS) poses significant challenges and a number of risks to the implementation process that go far beyond the mere technological risk of failure and deficient functionality (Kawuki, 2009). Studies conducted in various countries such as Tanzania, Ghana, Malawi, Kenya and Rwanda indicated that there are a number of challenges that may influence the successful implementation of an IFMIS (Rodin-Brown, 2008). Some of the most common challenges that may be faced by developing countries include: Lack of capacity, Weak commitment to

change, Business processes re-engineering, Institutional challenges, Change management, solving technical challenges, Creating a legal framework, Capacity building and training(Muwonge, 2009)

According to Hendriks (2012), IFMISs form part of the reform in financial management of developing countries globally and it holds benefits such as effective control over public finances, contributes to the enhancement of transparency and accountability and serves as a deterrent to corruption and fraud.

2.3.3 Components of the Operating Environment of IFMIS in a Local Government of Uganda

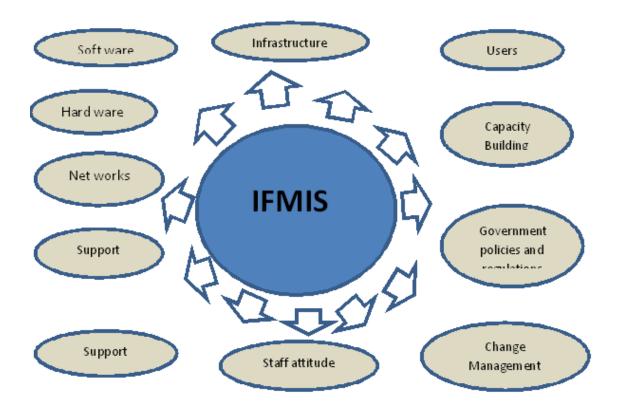
The local government IFMIS operating environment is basically made out of five components which include: Users, Software, hardware, Networks and support institutions (Kawha, 2012). According to Afya (2014),users are the public servants including the Chief Accounting Officer(CAO) who is accountable for all the financial activities and transactions, the Chief Finance Officer(CFO), who is the financial controller at the Local government, the Vote Controllers, who are heads of departments and implementers of government programs, the Accountants who support the CFO and heads of departments in book keeping, the procurement officer responsibilities lies in purchasing activities of the LG and the internal Auditor checks the operating Internal controls, statutory and regulatory compliance by the LG on behalf of Council and the CAO(LGFAR, 2007).

The second component of IFMIS in DLG is the Soft wares. Given the DLGs of GOU, the soft wares include Oracle and MS Dynamic Navision which offers the financial management and controls systems (Awok, 2012). He further states that, the replicator supports the local server to update information at the central data base at Ministry of finance. Web browsers; support the Oracle software to have an interface with the central data base at the ministry of finance. Microsoft office is used for writing report and designing of templates for information upload to the Oracle software (FINMAP Annual Report, 2013).

The third component is the hardware which creates an interface for interaction for all the rest of IFMIS components and they include; the desktops, laptops and printers, which enables users to operate on the IFMIS and enable outputs, the Switches which help to create a connection and interfaces of local computers printers and Scanners, the Routers which helps to connect the local area network (LAN) to the external servers for examples at Ministry of finances and Bank of Uganda (Okino, 2013). Okino further states that other hardware include, the Server which monitors the interaction of the rest of other IFMIS computers and other gadgets, and enables the interaction of the Local Area Network to the Wide Area Networks and other DLG Local Area Networks. There are also configured cables that enable the connectivity within the Local Area Network include the strait through, Crossovers, and Rollovers (Abdul, 2013).

The Network between the Local governments, the Ministry of finance, bank of Uganda and the Commercial banks is provided by UTL and MTN as service providers (MoFPED Annual Report, FY2011/12).

The fifth component is Support institutions which include MoFPED that provides funds to run the system and the server that creates an interface between BOU and the local government transactions, Ministry of Local governments provides IFMIS operating technical guidance and support. BOU create an interaction between commercial bank and LGs by clearing EFT and Central Government Transfers (Kuata, 2010). Where the various components are brought together, they form an integration which engineer the operationalization of an IT based Financial Management System (Okot, 2012) Figure 2. 2: The Diagram below shows the operating environment of IFMIS of a Local Government



Source: Adopted from the PFM reforms program modal by World Bank (2010)

World Bank, 2010 states that IFMIS is a core tool of almost all PFM Reform Programs but rather presents complex components which require maximum attention in all aspects in order to yield its intended objectives of efficiency and effectiveness in financial management. The operating environment of IFMIS and Local government is further affected with moderating valuable including the LG finance and Accounting Regulations Regulation 2007 and the PFM Act 2015, which present the legal framework for financial management of a local government, transaction procedures, finance controls and financial reports required by a local government. The Local Government Act, present the legal framework on the general operations, administration and the structure of a local government. Other factors that influence the operations of IFMIS include the attitude of Staff at a local government, Change management programs and Capacity building (Muwanga, 2013).

Therefore a good procurement of critical IFMIS Components for example; the software and the hardware, is not enough strategy for a success implementation of the system. The design and the operationalization of IFMIS at a local government should further pay attention and consider the moderating valuable which may seem silent but rather have a wide influence on the successful implementation process of the program in order to achieve efficiency and effectiveness financial Management (Sekate 2010)

2.3.4 Operationalization and the System Cycle of IFMIS

The operation of an IFMIS has three major part including Financial Data Inputting, Financial data Processing and the System Output (Katumba, 2010).

Figure 2. 3: The operating Cycle of IFMIS

IFMIS Data Inputs

Initial Budget, Release Budget, Vote on Account. Customers, Suppliers and employees details, Vendor Contracts, Employee Invoices, Supplier Invoices, Purchase Requisition, Revenue Assessments and Receipts/Income Details IFMIS Process/Modules Budget Checks and Funds Inquiry, Customer Invoicing receipting Purchase Requisition Processing, Payroll processing, Staff Advance processing, LPO Processing, GRN Processing, Payment Processing, Bank Reconciliations, Inventory Issues, Assets Requisitions transfers to General Ledger

Out Puts Vouchers, LPOs, GRNs, EFTs, financial reports, Exceptional reports, vote book reports, and Audit Trails reports

Source: Adopted from the IFMIS Transaction Cycle modal by MoFPED-Kenya(2010)

In Tanzania a central server is placed at the treasury at the Office of the Accountant General (AG)) to which users are connected by a dedicated network (Msabaha, 2007). Also work stations are provided for each of the MDAs from which they could access the system. Each MDA had its own database held in the omnibus database in the central server. MDAs' transactions automatically update the database in real time, and thus the general ledgers reflect the real position of balances at any particular point (Wanyancha, 2010. By the end of 2010 there were over 8000 users of the system at more than 185 sites throughout Tanzania (Ngasongwa, 2011). Daftari (2012), indicates that, the software package for the IFMIS in Tanzania is a medium-sized financial management and accounting package (Platinum SQL Financials from EPICOR). At present, the IFMIS is using a few modules, namely General Ledger, Accounts Payable, Accounts Receivable, Cash Management, Purchase Order, Multicurrency, Budget Module, Foreign exchange report writer, and Crystal report writer (Mahanga, 2013) and Nibuka (2014), adds that the accounts are essentially maintained on a

cash basis, though the authorities are planning to use other modules like Asset and Inventory a Management, and are working toward accrual accounting.

In Liberia, the implementation of the system began in 2009 with the mapping and necessary configuration followed by user acceptance and testing operations in February 2011 (Sumowood, 2010). According to Akerele (2012), the pilot implementation phase was done six line ministries and four local governments, covers the core modules of the application, namely Budget Management, Purchase Order, Accounts Payable, Accounts Receivable, Cash Management, General Ledger, and Financial Reporting and the software package is essentially accrual.

In South Africa, IFMIS is aimed at replacing aging and fragmented financial management, the Payroll, supply chain and human resource (HR) management systems, and associated ageing technologies, across national and provincial departments(Rooyen, 2007). According to Bartlett(2006) IFMIS implementations in the operations of the government of South Africa was approved by Cabinet on 14 September 2005 as a joint project between National Treasury (NT) as the project sponsor and policy owner for financial and supply chain management (SCM) in the Public Service; DPSA as the policy owner for HR management and information and communication technology and SITA as the solution provider and prime systems integrator (PSI). Based on the Memorandum by Cabinet, a number of decisions at its meeting on 14 September 2005 all financial management (including payroll), supply chain management and human resource systems are provided centrally (Ferreira, 2006). Pentz(2011), has further added that the independent software applications used by the North West, Gauteng and Limpopo provinces, the Department of Defence (DoD) and the South African Police Service (SAPS) were also migrated to a new central solution or solutions (IFMIS).

2.3.5 Characteristics and advantages of an Integrated Financial Management Information System

According to Diamond (2009), a well-designed Integrated Financial Management Information System (IFMIS) contains the following characteristics:

2.3.5.1 Financial Management tool

According to Wynne (2010), an IFMIS assists a Local Government in ensuring accountability, and transparency in use of public funds, with an objective of effectiveness and

efficient financial management. He further states that by tracking financial events through an automated financial system, management is able to exercise improved control over expenditure and to improve transparency and accountability in the budget cycle as a whole. Khemani (2006) argue further that, as a management tool, an IFMIS should support the management of change. As such, it should be viewed as part of the broader financial reforms of government, such as budget reforms.

As a management tool IFMIS also enables management to control aggregate spending and the deficit, prioritize expenditure across policies, programmes and projects to achieve efficiency and equity in the allocation of resources, and to make better use of budgeted resources, namely, to achieve outcomes and produce outputs at the lowest possible cost(Cain, 2001).

It has been argued by a number of scholars that the design and implementation of information technologies, especially to support accounting and financial management functions in organizations are usually premised on the determinist perspective (Okello,2012). This perspective assumes that technologies as rational; technically superior and they are harnessed naturally and unproblematic ally by its intended users to bring out desired outcomes (Sassen, 2002). However, the determinist approach is insufficient to explain how information technologies succeed in some contexts and fail in others.

In the private sector, a number of studies have revealed that new technologies are usually loose-coupled in practice (Granlund, 2002). For instance, Manson et al, (2001) observed that, although the junior audit staff embraced new technologies as applied in the audit processes and were keen to explore new horizons, the senior audit partners were not eager to integrate IT to automate the audit processes. The senior audit partners had gone as far as restraining the junior audit staff from using IT beyond acceptable boundaries, which they (senior partners) set. This demonstrated a degree of resistance to the changes in information systems resulting from the embedded power redistribution that emerge from the introduction of new technologies investigated the barriers for improving spreadsheets-based financial planning process in a UK manufacturing and RD subsidiary of a European transnational company(Howcroft (2006). His findings indicated resistance to changes in the financial planning processes. The resistance was due to the changes in power distribution within the finance organization created by the new systems. He further argued that the extant power

distribution might hinder and result into resistance to the adoption and implementation of new accounting and financial management systems in an organization.

Tsamenyi et al, (2006) explored the changes in the accounting and financial information systems imposed by the Endesa head office on a large Spanish electricity company - Sevillana. Their findings indicated that the implementation of the new systems met resistance from the employees who construed them as threatening their positions in the company.

Similarly, researches conducted on the impact of new information systems on the organizational practices in the public sectors have interesting revelations (Kholeif et al, (2007) investigated the failure to institutionalize ERPs that were imposed on an Egyptian state-owned company (AML) by aid agencies. Their findings indicated that the implementation of ERP system failed because it could not meet the basic accounting requirements of the control authorities.

Parry (2005) argued that an IFMIS could be both a solution and a predicament in financial management. He observed that many governments might waste resources on a solution that may be too complex for a country concerned and may not be sustainable or may even fail to work at all. Similarly, Health et al, (2000) acknowledged that many organisations were adopting new information technologies in their practices. However, they argued that in many cases the complex information technologies failed to meet their intended consequences, especially with regard to the needs of the users. They cited an example of the complex technologies employed in the South West Thames's London Ambulance Service. The new technologies were supposed to replace the "traditional paper-based system". However, the new technologies resulted into unintended consequences (chaos). On the other hand, Pallot (2000) revealed that the use of the Government Enterprise Management System (GEMS), a variant of ERPs specifically designed to offer integrated accounting and financial information in local governments, facilitated the production of timely and reliable performance reports in the New Zealand's Kauri and Kowhai councils. The studies commissioned by aid agencies on the implementation of IFMIS in the developing countries have also revealed that contextual factors which seriously affect their intended consequences (Dorotinsky, 2003).

By 1980, banks in various developing countries had not realized the desired outcomes of IFMIS (Tsamenyi et al, 2006). For example, he revealed that only 21% of the projects were successful and the rest had not achieved the intended consequences due to lack of commitment, and resistance from the intended users.

IRMT (2002) revealed that the adoption and implementation of integrated financial management systems (IFMIS) was done in Tanzania national and local governments before analyzing the business processes. Thus, the functionality of IFMIS did not match all the information needs of the targeted users. It was adopted out of pressure by the international development agencies, rather than out of internal need to reform the accounting system. Besides, the Trust observed the persistence of manual records alongside the IFMIS, was meant especially to meet the requirements for external audit purposes (ibid, 2002). This is because the National Audit Office did not have adequate access to IFMIS, let alone having sufficient skills and knowledge to undertake computerized external audits. They also noted that the computerized financial management systems were implemented alongside the manual systems. Furthermore, Uwaifo (2006) argued that the implementation of information technologies in Nigerian local governments was affected by contextual factors, such as inadequate funds, shortage of skilled human resources, insufficient technology infrastructure and constant power outages.

2.3.5.2 Provision of nonfinancial and financial information

According to Rodin-Brown (2008), IFMIS provides decision-makers and public-sector managers with the information they need to perform their managerial functions. He farther states that an IFMIS provides timely, accurate and consistent data for management and budget decision-making. And according to Matsuda, 2001), by computerising the budget management and accounting system for a local government, the expected output is the quality reports. Further, IFMIS allows users anywhere within the IFMIS network to access the system and extract the specific information they need and a variety of reports can be generated to address different budgeting, funding, treasury, cash flow, and accounting, audit (Rozner, 2008).

2.3.6 Rationales for the increasing use of integrated information technologies

Various rationales are identified for the increasing reliance of the IT-based integrated or enterprise-wide information systems in the private sector. These include the promise of integrated mode of management and control external pressures caused by globalization and competition (Mouritsen, 2003). Furthermore, other studies have revealed the desire to improve accounting systems as one of the drivers of the increased use of IT-based information systems. This is at the time when the traditional paper-based accounting systems were under intense criticisms for not being appropriate in the era of complex manufacturing systems (Malmi, 2002).

In the context of the public sector, the search for efficiency, especially under the "NPM" discourse, has espoused the adoption of IT-based accounting and financial management systems in search for efficiency and effectiveness in the provision of public services. In particular, for developing countries, the changes in accounting and financial management systems promised mitigating the challenges of efficient, effective and transparency and accountability for the utilization of public resources, which in many cases are provided by international aid agencies to combat corruption in the public sector (USAID, 2008). Anipa et al, (1999) argued that the adoption of IFMIS in Malawian local governments enhanced the implementation of the new budgeting rules (MTEF), which were also enforced by aid agencies. They argued that it was because MTEF required the analysis of loads of data, which could not be easily achieved without using IT-based accounting and financial management information systems (Anipa et al, 1999).

In addition, Khemani (2005) argued that budget implementation in LDCs is usually characterized by either manual systems or systems that are inadequately maintained software applications, which has serious repercussions on the public expenditure management. They further added that the manual information systems resulted into the lack of timely accurate financial data on budget planning monitoring, and expenditure control, reporting and execution of accountabilities. Thus, the adoption of IFMIS promised to strengthen public expenditure management, especially in budget reforms and financial controls (Ibid, 2005).

In the context of local governments, especially in developing countries, the adoption and implementation of the integrated financial management systems is intended to enhance timely and accurate information of decision-making purposes and to add value to public administration in order to foster socio-economic development (Pradhan, 2002).

2.4 IFMIS as a Control System

The scope and functionality of an IFMIS can vary from a basic general ledger accounting application to a comprehensive system covering budgeting, accounts receivable or payable, cash management, commitment control, debt, assets and liability management, procurement and purchasing, revenue management, human resource management and payroll (Rozner 2008). Its role is to connect, accumulate, process and then provide information to all parties

in the budget system on a continuous basis (Khemani 2006). It is therefore imperative that the system should be able to provide the required information timely and accurately, because if it does not it will not be used and cease to fulfil its central function as a system.

According to Lukwago, (2012), an IFMIS can improve financial management in a number of ways, but generally seeks to enhance confidence and credibility of the budget through greater comprehensiveness and transparency of information. The purpose of using an IFMIS is to improve budget planning and execution by providing timely and accurate data for budget management and decision-making (Chene 2009). A more standardised and realistic budget formulation process is allowed for and improved control over budget execution is affected through the full integration of budget execution data.

2.4.1 IFMIS as a Public Sector Change Management Tool

One of the major benefits of an IFMIS is the impact that it can have on corruption, by easing detections through its audit trail (Mayanja 2011). Further Chêne (2009), states that a well-designed IFMIS can provide a number of features that may help detect excessive payments, fraud and theft. These include, for example, automated identification of exceptions to normal operations, patterns of suspicious activities, automated cross-referencing of personal identification numbers for fraud, cross-referencing of asset inventories with equipment purchase to detect theft, automated cash disbursement rules and identification of ghost workers.

At the launch of the Human Resource (HR) module of the IFMIS in Uganda, the Minister of Public Service and Administration stated, the implementation of the module is critical for payroll management in GoU for better salary payments and payroll management in public service and as corruption had been the biggest threat to good governance in Uganda and in the public service, IFMIS is in a better position to eliminate ghost workers, and the module will enable management to manage the disciplinary process in the Public Service(Baloyi 2011).

2.5 Financial Management

According to Donaldson (2006) the modern world offers many opportunities for financial management innovations and reforms in Local Governments. He further states that there are

enormous benefits, where such reforms are got right but getting those right means keeping them simple with embedded controls.

Tubase, (2012) states that while Local Governments' committees have the flexibility to allocate their resources where there is need, the choice of the processing method in cash movement, budget adjustment, budgetary controls and management procedures remain paramount. He further explains that funds may be reallocated amongst departments for expenditure but must to not be spent on non-government activities. Local governments design systems for financial management in partnership and guidelines from a range of local and external stakeholders including Central Government, Donor community and the local community needs (MoLG Annual Report, 2001).

2.5.1 Definition of Financial Management

Although they are other definitions and researches about financial management in line with Financial Institutions, Governments' perspective is different in relations to Service delivery (Diamond 2009).

In view of Government operations, Channan (2012) defines financial management as those services that involve cash flow and non-cash flow movements meant to facilitate other government departments/agencies/ committees/commissions/councils and boards in reaching out or interacting with the local citizens. He further states that the government's primary role is to offer/ deliver public services to its citizen through various departments, agencies, committees, commissions and councils.

According to Kakeeto(2013), Service Delivery in Local Governments is both direct and indirect/operating. He indicates that Direct Service delivery includes Medical Services by the Health Department, Education Services by the Education Department, Community Development Services by the Community Development Department, Natural resource conservation services by the Natural Resources Departments, Works and Water management Services by the Works Department, and Production and Agricultural Services by the Production Department. He also says indirect services are defined so, because they offer an operating role in a local Government, facilitate and support "the direct" in delivery of public services. Those indirect services include, financial management by the Finance Departments, Administration by the CAO's office, Internal Audit Services by the Internal Audit

Departments, Procumbent Services by the Procurement Unit, and Planning Services by the Planning Unit.

Ahimbisibwe 2012, identifies financial management at Local government to include Tax/Revenue Management, Contracts Management, Budgeting, Cash Management, Payment Processing, Payroll processing, Inventory and Asset management, and Financial Reporting.

2.5.2 Effective Financial Management

Tusabe(2002), effectiveness refers to "the success or otherwise in achieving objectives.," and its hit is concerned only with output. In view of a local government, he further states that effectiveness is about achieving objectives and a means of providing the right services to enable the local authority to implement its policies and objectives and it is therefore concerned with ultimate output of the service. The initial emphasis of value for money audit has always been ineffective and limited, on reason for the past lack of enthusiasm and operating with manual systems. (MoLG Annual Report 2009). The report further show hope in IFMIS that, with its introduction in Local Government, there is going to be improvements in financial reporting and audits will be made easy.

Further, Kawuma(2007), credits IFMIS as he states that where Revenue assessment, receipting and receivables management is computerised, manual Cheque Payment are replaced by EFTs, Manual Ledger books are configured in a data base, Bank reconciliation is automated, financial reports are produced automatically through IFMIS, LG Financial Management has been seen to be simplified, efficient and effective given the current global trends in information systems.

It was also suggested by Namala(2008), that the effectiveness and efficiency of financial Management could be evaluated by the tools or means through with they are delivered given the laws and regulations, and customer's satisfaction and if so it can then be assumed that the Finance Department is providing the desired impact.

2.5.3 Performance Indicators of Financial Management in Local Governments

Luboobi, 2009), states that it is not easy to define performance indicators for activities related to public expenditure and even if performance is defined, there are still problems on how best to measure it. However, according to Juuko (2010), any system is always adopted to bring out efficiency, effectiveness and value for money. He further states that on way that has

increasingly been developed in recent years have been to devise performance indicators given such measures. In in view of Juuko's augments, Tusabe (2012), states that IFMIS; as an adopted system for improving financial management, can be evaluated by use of performance indicators (in line with the efficiency, effectiveness and value for money) that define and comes along with adopting the same (MoLG Annual Report, 2002).

According to the Tuukke (2011), the range of performance measures adopted by local governments in measuring financial management are extensive and they include; staff productivity, cost per unit of output, cost per hour of human input, and cost per head of populations. He further states all these provide different emphasis linked to resource inputs, processing and services out puts and how well the organisation has utilised its resources in pursuit of services. On the other hand Luboobi (2009), looks at effectiveness as a measure on how well the LG has fulfilled its key objectives by use of IFMIS.

Tusabe (2012) further states that the role of performance measures or indicators is to provide council and top management with information or areas within their responsibility, encourage them to investigate items, both of the positive and negative nature, and to establish the "How" and "why" of occurrence. In other words' he emphasizes that performance measures are meant to be indicative rather than definitive and to acknowledge good practice as well as practices.

2.6 The Local Governments

Sylvia Horton (1999), defines Local governments as organs, which are formed by democratically elected councillors and provide services on the basis of bureaucratic paternalism in the public interest. According to Farnham (2007), Governments around the world are reforming and strengthening their systems of Local governments, and decentralizing responsibilities and resources to sub-national levels. He further states that, this has been driven by different factors in each country such as political, economic, social and financial. The Common belief is that shifting responsibilities of service delivery from Central Government to Local levels should help ensure that decisions and resources used reflect the needs and priories of local citizens (Akol, 2003).

In Uganda, the idea- started way back in 1992, when the government decided to take powers to lower levels of government. This followed by the local Government Act, enacted in 1997. The decentralization process involves substantial transfers of political, financial and planning

responsibilities from the central government to local governments-Districts and sub-counties. This empowers the local governments to take increasing responsibility for the Financial Management and promotion of popular participation and empowerment of local people in development planning and decision making. This is why it is usually emphasized that contracts should be given to residents of local areas where a service will take place (MoLG Annual Report, 2001). This belief, however, is based on the assumption that local citizens have influence on the decisions made by local governments concerning the financial management and the use of resources locally. Yet it is well known that representative democracy is a crude instrument for establishing local need and preferences (Akol, 2003). In order for this work to be done, government has emphasized bottom-to up planning/management, so that the locals should identify the need of the community and ten planners plan accordingly to the needs of the community.

The local government Act (2010), defines the structures of local governments and specifies their respective powers and functions in relation to responsibilities transferred to them from central government with direct financial management within a wide range of sectors now being vested in local government. It further provides a wide range of responsibilities that were transferred to local governments, together with increasing resources. As a result very substantial resources are now flowing through the local government system; much of it comes from of specified grants to finance basic services and infrastructure. This raises the question on how these financial resources are used, and how the finances are managed up to the beneficiary

2.7 IFMIS and Financial Management

IFMIS is as the application of Information and Communication Technology (ICT) to government processes to bring simple, moral, accountable, responsive, and transparent (SMART) governance (Budhiraja, 2009). Himanshu (2010) have pointed out that government, perhaps more than any other organization, can benefit from the efficiencies and improved service that stem from Information Technology. The use of ICT in government is not only intended to have a focus on efficiency and effectiveness but also to empower citizens by making available to them an interactive access to and use of information (Arora, 2010).

According to Smith, (2010) IFMIS has the potential to improve financial management and customer satisfaction. It is also confirmed that the expectations of citizens from public

financial management are quite high, but experience has often been negative that's to say; there is a huge variance in the perception and expectation of normal citizens in the country regarding service delivery and quality of services. This has negatively affected customer satisfaction over the number of years. There is an urgent need in Public Service to employ IFMIS in all public agencies in view of prevailing problems of service quality. IFMIS should be seen as a means of improving service quality in the future.

Despite much research on financial management in Public service, vigour is still lacking (Agnes, 2007). Vanagas (2007) has pointed out that it is crucial to investigate the IFMIS and financial Management. He argues that the Financial Management quality aspects of IFMIS are even more in need of research. Akesson (2008), provide a useful guide to improvement. He identify how IFMIS could stimulate three dimensions of change in the design of financial management control that to say; service encounter and service process and the public as co-creators

Pathak et al. (2008) found that IFMIS will be able to streamline LG bureaucratic procedures in financial management to make operations more efficient. They accepts the propositions of principal-agent theory that problems of accountability and transparency created by asymmetric information flows between agents and principals lead to problems such as corruption and huge time and cost factors in service delivery(Lane, 2009). Naz (2012), further states that, ICT enabled systems offer the potential to eliminate opportunities for corrupt use of discretion by dis-intermediating services and allowing citizens to conduct transactions themselves. Such systems also extend accessibility of information within the public sector and by providing enhanced accounting, monitoring and auditing systems; such systems ensure that public business is more fully open to senior managerial and external scrutiny.

2.8 Conclusion

Effectiveness and efficiency in financial management is seen as "doing the right things," and measures constructs like council and public satisfaction on dimensions, such as service quality, speed, timing, and human interaction (Kakeeto, 2012). Further, financial management is effective whenever its outcomes or accomplishments are of value to its intended parties as seen in the works of early researchers like Deming (2009), focused their attention on the relationship between IFMIS objectives and Financial Management . Therefore the present research will be based on system dimension of Systems Inputs,

Processes and Outputs in relationship to Financial Management (Kafuuma, 2007). Perceptions on financial management experience tend to focus on relatively small and specific factors, such as how long customers wait to be served. This allows a gap analysis approach through comparing expected service quality and the capacity of IFMIS to facilitate Local government operations (Zeithaml et al, 2010).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the research methodology that was used in conducting the research on IFMIS and Financial Management in Local governments, the research design, study population, sample size, data collection methods and instruments, validity and reliability, measurement of variables and concludes by presenting the methods that was applied in data analysis.

3.2 Research Design

According to Trochim (2001), a research design refers to the overall strategy that a researcher choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring he/she will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data

This research adopted a survey research design. This was because a survey study provides a clear 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time.

According to Kothari (2004), survey research designs have three distinctive features: time dimension; a reliance on existing differences rather than change following intervention; and, groups are selected based on existing differences rather than random allocation. He further states that a survey research focuses on finding relationships between variables at one moment in time and groups identified for study are purposively selected based upon existing differences in the sample rather than seeking random sampling.

Further, Herluf(2005) states that as such survey study designs can estimate prevalence of an outcome of interest because the sample is usually taken from the whole population and because it's use investigational techniques to gather data, it is relatively inexpensive and takes up little time to conduct. This study used a survey study involving both qualitative and quantitative methods which allowed the researcher to collect a variety of information and in turn achieve a higher validity and reliability. According to Kothari (2004), this type of design is most appropriate since the study is for a particular subject within a specific period.

Yin (1994), argues that survey study research strategy are appropriate for the investigation of how and why questions, especially when the concern is to study modern-day issues over which the researcher had no control. IFMIS and financial managment in Local government of Uganda has no clear boundary as it has an element of service delivery to the public, donor factors and therefore a survey research design is most suitable (Bakulu, 1994).

3.2 Research Approaches

3.2.1 Qualitative research Approach

According to Verhoef (1997), qualitative research approach is the use of non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships. Although subjective, qualitative approaches provides different ways; of looking at the same problem. Without this understanding, researchers can only answer the question of how and not why (Smith 2008).

The researcher used this approach of research because there was need to interact with local government personnel in the financial departments so as to ensure that specific information was obtained from particular respondents through interview and observation. The use of face to face interviews and observation was relied on to collect the qualitative data from key informants in the study. This approach is supported by Weinriech (2006), who points out that face to face interview approaches are designed to provide the researcher with the perspective of target audience members through immersion in a culture or situation and direct interaction with the people under study. Weinriech (2006), again elaborates that qualitative approach used are designed to help researchers understand the meanings; people assign to social phenomena and to elucidate the mental processes underlying behaviours. Further support for the qualitative approach is from Corbin et al (1998), who explain that qualitative research represents a kind of investigation whose findings are arrived at without statistical procedures or other means of quantification.

3.2.2 Quantitative research Approach

In this study, the researcher further used a sample from a wider study population that was used to generate data that was generalized to a larger community and the data was presented in numerical figures and tables. This approach is recommended by York (1998), who explains that quantitative research is about prediction, generalizing a sample to a larger group

of subjects and using numbers to prove or disprove a hypothesis. According to bowling (2002), quantitative research deals with quantities and relationships between attributes. Furthermore, quantitative research is appropriate in situations in which there is pre-existing knowledge, which permitted the use of standardized data collection methods and in which it is aimed to document prevalence or test hypotheses (Bowling, 2002).bm the financial departments in selected local governments in Uganda. The use of the questionnaire is emphasized by Davies (2000) who reveals that, the traditional empirical quantitative technique is the survey questionnaire, administered to a stratified or random sample of a population, enabling us to draw inferences about the behaviour of a whole population from a smaller (and less expensive) number.

3.3 Study Population

A study population is a group of interest to the researcher where he would like the results of the study to be generalized (Amin 2005). In this study, the study population included Local Government Staff (CAO, CFO, Accountants, Heads of Departments, Procurement Officer, and Store Keepers), Suppliers, Customers, and District Politicians.

Category	Population (N)
CAOs	4
CFOs	4
Internal Auditors	4
Heads of Departments	44
Personnel Officer	4
District Accountants	90
Other District Staff members	114
Total	264

 Table 3.1: The population category and Population

Source: District planning Units of respective Districts, 2014

3.3.1 Study Area

This research was carried out under the topic "Integrated Financial Management Information Systems (IFMIS) and financial management in selected Local Governments in Uganda." The study was carried out at Masaka DLG, Mpigi DLG, Mbale DLG and Jinja DLG which have been using IFMIS for financial management from 2005 to 2015.

3.4 Sample Size

According to Sekeran (2003), a sample is a subject of a population. It comprises some selected members who are referred to as elements. Sampling is the process of selecting a sufficient number of elements from the population so that a study of the sample and an understanding of the characteristics would make it possible to generate such characteristics to the population elements. Sample size therefore is the total number of elements selected to represent the population of study.

The researcher targeted a total population of 264, which according to Krejcie and Morgan (1970), a sample size of 155 is considered after a categorical application of the sample frame to each category of respondents. The sample size for the study is summarized in the following table with the corresponding parent population The study selected up to 155 respondents based on the Krejcie and Morgan(1970) sample selection guidelines(See Appendix i) as shown table 3.1b below. After a response rate was calculated, the study interviewed and conducted questionnaires to a total of 84 respondents.

Category	Population (N)	Sample (S)
Conduct Interviews		
CAOs	4	4
CFOs	4	4
Internal Auditors	4	4
Administer Questionnaires		
Heads of Departments	44	35
Personnel Officer	4	4
District Accountants	90	79
Other District Staff members	114	25
Total	264	155

 Table 3.2: the population category, total population, sample and sampling methods

Source: DPU on respective Districts and modified to unite the study

3.5 Data Collection Methods and Instruments

3.5.1 Data collection methods

Primary data was collected through questionnaires and interviews. Secondary data was drawn from various documents from the library and internet.

3.5.2 Data collection instruments

3.5.2.1 Questionnaires

Questionnaires were administered to the respondents particularly head of departments and officers. The questionnaires were developed from the research objectives and contained a mixture of closed and open ended questions. Mugenda (2003) says that questionnaires are commonly used to collect important information about the population. Data was collected using the pre-designed questionnaire and an interview guide. Each item in the questionnaire was developed to address objective and research question of the study (Mugenda & Mugenda, 2003). Following the granting of permission to go to the field, the researcher distributed questionnaires to the respondents.

3.5.2.2 Interviews

Face to face interviews with key informants were conducted using an interview guide to gather corroborative information and because these chosen informants have better knowledge of the variables of this study than other participants. The key informants included the CAO's, Heads of departments, CFOs, Internal auditors, and District Accountants. The interview guide was structured according to the objectives of the study to the respondents. Interviews were scheduled with the different heads of departments while documents were reviewed during the visits. The use of interview guide enabled the researcher to gather more information with greater in-depth on the various questions asked (Mugenda & Mugenda, 2003).

Interviews were used because they have the advantage of ensuring probing for more information, clarification and capturing facial expression of the Interviewees, (Amin 2005). In addition Interview also gave an opportunity to the researcher to revisit some of the issues that have not been thorough in the other instruments and yet they deem vital for the study.

3.5.3 Document checklist

Documentation review involved deriving information by carefully studying written documents or visual information from sources called documents (Amin, 2005).

3.5.4 Data collection procedure

A letter of introduction was obtained from the University. This letter was used to obtain permission from the district authorities to conduct a survey at the local governments. The researcher made necessary introductions out of the objectives of the study to the top administrators, for permission to carry out the research.

3.6 Data Analysis and Presentation

The data collected from questionnaires was coded and entered in SPSS software for be analysis

The researcher used both qualitative and quantitative methods of data analysis. Quantitative data got from the questionnaires was computed into frequency counts and percentages.

3.6.1 Qualitative Analysis

Qualitative data got from the interviews, and open-ended questions in the questionnaires was arranged into themes according to the stated objectives, and then presented it in a narrative form.

Qualitative analysis was made after the collection of data using the notes taken during the field work so as not to miss any relevant information. This qualitative analysis was also formed on the basis of quantitative analysis.

3.6.2 Quantitative Analysis

The data collected was coded and reviewed by the researcher. A quantitative analysis was adopted for data analysis because the information collected contained quantitative data. A computer statistical package SPSS (Statistical Package for Social Scientists) was used, by entering primary data in the software spread sheets for analysis. Descriptive analysis was done by means of frequency tables, pie charts and graphs using Excel.

In the investigations, data of the respondents' opinions on the characteristics of effective and efficient financial management give IFMIS inputs, processing and outputs was compiled. The items or questions in these themes or constructs were investigated based on a five -point Likert scale. The items in the various constructs were tested and confirmed for reliability using Cronbach's alpha (Jamieson, 2004). In other words, a high alpha value ($\alpha > 0.7$) obtained for the various themes implies reliability of the items adopted in assessing the latent constructs.

In the analysis, summated and average scores or indices were generated for each of the themes or constructs (Yamane, 1967; Jamieson, 2004). The summated indices in the various domains comprise of non-negative integer values. On the other hand, average indices denote a quotient of the summated indices by the number of items in each of the themes. In addition to the various constructs, data on respondent's characteristics namely age, sex, education level, and marital status was compiled. The analysis was done at two stages: First, a descriptive summary of respondent's characteristics and financial managment- the dependent variable - were made using frequency distributions and summary statistics, respectively. Further, summary statistics were generated for the rest of the constructs IFMIS Inputs, processing and outputs)— the independent variables. The analysis on the themes or constructs was based on average indices. Second, a bivariate assessment of financial management by the rest of the constructs was made using the pearson correlation. Choice of the approach was based on the fact that the average scores or indices generate were continuous variables. Associations between the dependent and independent variables were established at 5% levels, unless otherwise indicated.

All variables with a relatively small probability value (p < 0.5) are incorporated for further analysis at the multivariable stage, unless indicated otherwise (Hosmer, 1989).

Third, the net-impact of the independent variables on the IFMIS- the dependent variable, was investigated using a linear regression. Choice of the approach was based on the fact that the outcome variable is continuous in nature. The likelihood of the IFMIS impact on financial management was modelled based on the formulae:

 $Y = \beta_0 + \beta_1 X_1 + ... + \beta_i X_k$ (3.1) Where Y= the dependent variable- financial management X_i Represents independent variables β_i Represents coefficients of the ith variable β_0 Represents the constant

3.7 Quality Control

3.7.1 Pretest of Data collection instruments

Pretesting is an indispensable part of the questionnaire design and demands that the researcher examines individual questions as well as the whole questionnaire very carefully (Amin, 2005). Pretesting was conducted with the Staff at Public Financial Management Office-MoLG to establish the reliability and validity of the study instruments.

3.7.2 Validity

Validity refers to the truthfulness of the findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Amin,2005). According to Wallen (2006) validity refers to the degree to which a test measures what it is supposed to measure and consequently permits appropriate interpretation of scores. Wallen further stated that validity was determined by using Content Validity Index (C.V.I). C.V.I = items rated 3 or 4 divided by the total number of items in the questionnaire. Using these assumptions, Wallen developed a formula determining the content validity ratio: where content validity ratio is equivalent to number of relevant items indicating & quot; essential & quot;, total number of items. This formula yields values which range from +1 to -1; positive values indicate that at least half rated the item as essential. The mean CVR across items was used as an indicator of overall test content validity.

Variables	Content Validity Index results
Financial data inputs	0.9
IFMIS data processing	0.9
IFMIS Outputs	0.7
Financial Managment	0.8619

Table 3.3 Content Validity Index results

Source: Primary Data (2014)

3.7.3 Reliability

To ensure reliability of the instruments and to build confidence that the instruments yielded results, reliability analysis of the scale in the research instruments was carried out. This was done by performing Cronbach's Alpha Coefficient tests. To ensure reliability of the instruments, questionnaires and interview-guide were designed and pre-tested at the PFM Office at the ministry of Local Government. This technique in which the instruments ware pre-tested are drawn from Sarantakos (1998)

For quantitative data, the Cronbach's Alpha Coefficient test was performed. The Cronbach; alpha Reliability Coefficient for Likert-Type Scales was used. In statistics, Cronbach alpha is coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. According to Amin (2005) some professionals as a rule of thumb, require a reliability of 0.70 or higher (obtained on a substantial sample) before they use an instrument.

The relationship of IFMIS Data Inputs, IFMIS data processing, IFMIS Outputs and Financial Management were measured on a five point Likert type scale (1- strongly disagree, 2- Disagree, 3-Not sure, 4- Agree and 5-Stronglyagree. The choice of this measurement were that each point on the scale carries a numerical score used to measure the respondents' attitude and it is the most frequent used summated scale in the study of social attitude. According to Mugenda (1999) and Amin (2005), the likert scale is able to measure perception, attitudes, values and behaviors of individuals towards a given phenomenon.

Latent constructs	items	Cronbatch Alpha
		Value
Inputs	9	0.7066
Processing	14	0.7201
Outputs	5	0.8009
Financial Managment	13	0.7030

Table 3.4:	Reliability	of Latent	constructs
-------------------	-------------	-----------	------------

Source: Primary Data

High Alpha value (a>0.7) obtained in the results according to Table 3.4 imply reliability of the questions adopted in assessing the latent constructs. The evidence gives credence to the application of the questions in assessing the constructs

3.8 Ethical Considerations

When collecting primary data, questionnaires were accompanied by a cover letter explaining the purpose and intention of the study. The questionnaires were then dispatched to the respondents collected a week later after being filled. The researcher considered the research values of voluntary participation, anonymity and protection of respondents from any possible harm that could arise from participating in the study. Thus; the researcher introduced the purpose of the study as a fulfilment of a Masters programme and not for any other hidden agenda by the researcher and requested the respondents to participate in the study on a voluntary basis and refusal or abstaining from participating was allowed. The researcher also assured the respondents of confidentiality of the information given and protection from any possible harm that could arise from participating in the study.

Acceptable Ethical behaviour was employed from the start to the end of the study. First, the researcher sought permission from the respective Local Government's authorities in order to access their Local Governments, and an introduction letter from the school of graduate studies in writing was attained.

3.9 Limitations to the study

The Time Dimension adopted for this study uses cross sectional which allows data collection analysis and presentation to be done at only a particular point in time. This could have had limitation of obscuring an in-depth understanding of the valuables. However this limitation has been minimized by adopting a multi-method approach (quantitative and qualitative approach) in data collection and analysis.

Practical implication of the study: The findings of this study would require adequate understanding of this study by extensive training of the Users. This however requires a lot of time which management of the respective district would need to consider before then wholesomely adopting and implementing the system.

Theoretical implication: The Findings of this study attest and broaden the current theory that is used and adopted for the implementation of IFMIS. However because it's a Snapshot, these

conclusion might not be in the context that will require broadening the theory. It would rather have required a long study through a longitudinal time study. Nevertheless, the attempt to use a multi-method approach has significantly minimized this limitation.

3.10 Conclusion

In summary this chapter is composed of the methodology that guided the researcher collect reliable and valid data from respondents in the field. The chapter have been broken down to answer the fundamental questions of where, when, why, how, and who the study is going to involve.

CHAPTER FOUR

ANALYSIS, PRESENTATION, DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents the results of the study on the relationship between Integrated Financial Management Systems (IFMIS) and Financial Management in selected local governments in Uganda. The results are presented in two major stages. First, an analysis of respondents' characteristics, financial data inputs in IFMIS, IFMIS data processing, IFMIS outputs and financial management in local government is made using frequency distributions and summary statistics were deemed appropriate. Second, a bivariate assessment of financial management by the IFMIS inputs, processing, and outputs in local was made using the Pearson correlation, and lastly the net impact of the different variables on financial management was investigated using a linear regression. The subsequent sections present a detail of the analysis and results based on these three stages.

4.2 Back ground Characteristics of respondents

Table 4.1 presents a descriptive summary of respondents characteristics namely, age, gender, highest education level, marital status and designation of employment.

Characteristics	Ν	Percentage (%)
Age		
18-30	6	13.95
31-40	16	37.21
41-50	14	32.56
Above 50	7	16.28
Total	43	100
Gender		
male	28	65.12
female	15	34.88
Total	43	100
Marital Status		
Single	11	25.58
Married	32	74.42
Total	43	100
Education Level		
certificate	2	4.76
diploma	5	11.9
degree	23	54.76
masters	12	28.57
Total	42	100
designation of employment		
Head of department	11	26.19
Senior officer	16	38.1
Officer	15	35.71
Total	42	100

Table 4.1: Descriptive summary of respondents' characteristics

Source: Primary Data

4.2.1 Respondents' Age

The majority of respondents ranged 30-40year at 37% of the respondents, followed by age 41-50years at 32.%, above 50% were 16% and lastly below 30years at 13%. This means that the highest number of respondent have a modest working experience with public service and therefore they understand the expected outputs of IFMIS as a tool for financial management. Given this research, their evaluation for the operation of IFMIS is expected to be accurate and well realigned to the expected output on financial management.

4.2.2 Gender and Marital Status

Given Table 4.1, the highest proportion of respondents were male with 65% predominately married (74.4%). Notwithstanding the needs of the minority, the sociological and

psychological needs of married men should be considered for a successful implementation of the System.

4.2.3 Education Levels and Designation of Employees

Majority of the respondents had a University bachelor's degree as their highest education level (54.7%) and the highest proportion in terms of Designation were senior officers (38.5%), followed by Officers at 35%. The basic and routine operations of IFMIS are around such people and therefore, their evaluation of IFMIS gives more confidence to research. Further given the fact that a big majority have a university degree, it gives further confidence to the research since this level of education is above the minimum requirements for understanding IFMIS processes.

4.3 Descriptive Statistics for IFMIS inputs

Table 4.1 presents the descriptive statistics of IFMIS inputs, that is to say, minimum, maximum, mean and standard deviation values. Mean values were computed from data coded from strongly disagree (1) to strongly agree (5). The mean scores from 3.35 and above indicate an agreement while those below 3.35 indicate a disagreement.

	(N)	Mean	Std. Dev	Min	Max
IFMIS input			201		
Data sources for the system are reliable	43	4.0	0.8	2	5
Legal data sources are used for data entry	43	4.0	1.0	0	5
Data entry personnel are committed to their work	43	3.6	1.0	1	5
Personnel responsible for Data input are competent in their work	43	3.9	0.9	2	5
There are enough personnel to input information in the system	43	3.8	1.1	1	5
Data entrants in the system are motivated enough to do their work	43	3.6	1.1	1	5
Data entrants have got enough training to enter data in the system	43	3.5	1.2	1	5
Anybody can input information in the system	43	1.6	0.8	1	4
The system data entry process addresses the legal requirements of					
a Local government	43	4.0	1.0	1	5

Table 4.2: Descriptive statistics for IFMIS inputs

Source: Primary Data

4.3.1 Data sources for the system are reliable

From the Table 4.2 above it can be observed that the respondents agreed that Data sources for the system are reliable (Mean= 4.0, SD= 0.8). A mean of 4 indicates that respondents agreed that Data sources are reliable. Such data sources include the master OBT, Revenue receipts, Invoices, purchase requisition and Staff advance memo. However with a Standard deviation of 0.8, it means that some data input in system may not have administrative backup sources. And where there are variations in data sources, the outputs in terms reports will also vary from the expected. With such variation, system reports will always be manually adjusted at the end of the financial year in order to depict the expected financial position of the LG. This is confirmed by the Auditor General LG report, FY2012/2013 that the hard copies of financial reports submitted by IFMIS LGs for Audit purposes vary from what the system reports and thence such LGs get qualified opinions.

4.3.2 Legal data sources are used for data entry

With a Mean of 4, it means that respondents agreed that data sources are legal. However a Standard deviation of 1 indicates that some transaction input in the systems are fraudulent and illegal. This confirms corruptions scandals for example the 2012 Office of Prime

Minister's scandal and the 2011 MoLG Bicycle Scandal as mentioned in the IGG's Report, 2013.

4.3.3 Data entry personnel are committed to their work

Here, the Mean response was 3.6 which means that on average respondents agreed personnel commitment to their work. However a standard deviation of 1, it means that some Accounts Staff who are responsible for Data Entry are not dedicated to their work. And where some employees are not dedicated, it will take a long time to have transaction processed through the system. This brings inefficiency in financial management. This is also confirmed by the USAID (2008) where it mentions that non commitment of public servants to IFMIS cannot enable timely and efficient financial management services to the expected beneficiaries.

4.3.4 Personnel responsible for Data Input are competent in their work.

The mean was 3.9 indicate that respondent agreed that data entrants are competent. However with a standard deviation of 0.9, it means that a few data entrants are not competent neither do they have the right education qualification to take up such Jobs. And where some employees are not qualified for such positions, they end up messing data entry which messes output for example printing EFTs on wrong bank accounts, and making wrong non-cash flow journals. In the event wrong exceptional reports, and financial reports will be produced this can aid decision making.

4.3.5 There are enough personnel to input information in the system

Though the Mean response was 3.9 indicating an agreement that there enough personnel to input data in the system, the Standard deviation of 0.9 leaves a questions. This SD indicates that in some LGs or in the opinion of such respondents, there are less Accounts staff to facilitate data entry in the system which may cause transaction processing delays. Where there are fewer Accounts staff to input information in the system, efficiency as a measure of financial management can hardly be achieved. More transaction will delay and the fewer staff employed are overloaded with work.

4.3.6 Data entrants in the system are motivated enough to do their work

With a Mean response of 3.8, it indicates that employees are motivated. However a Standard Deviation of 1.1 indicates that to some extent employee are motivated while working with

IFMIS for financial Management. And where data entrants are not motivated on work, there will be less efficiency and commitment to work.

4.3.7 Data entrants have got enough training to enter data in the system

With a Mean response of 3.6, respondents agreed that data entrants have got enough training. However with a Standard Deviation of 1.1, it means that some employees have not been given enough IFMIS training. This implies that the non-trained staff, and they use IFMIS may mess transaction process due to their ignorance of the implication of their action. In the long run, wrong reports will be produced, financial reporting will be hectic, and financial management decision making will be difficult. This is confirmed by Khemani (2012) where in Malawi; IFMIS implementation was stagnated and failed due to piloting of the IFMIS before Staff training and the methodology for the software customization in the various modules were not planned and completed, while others were not implemented at all.

4.3.8 Anybody can input information in the system

The mean response was 1.6, indicating that respondents disagreed with the statement. It further means that there are clear segregation of duties while operating with IFMIS and employees clearly understand their various responsibilities given IFMIS operations. However, with a Standard deviation of 0.8 on this statement, it indicates that some employees have not yet understood the specific responsibilities of users given the System. This further confirms the less training given the staff to understand the IFMIS operating structure and environment.

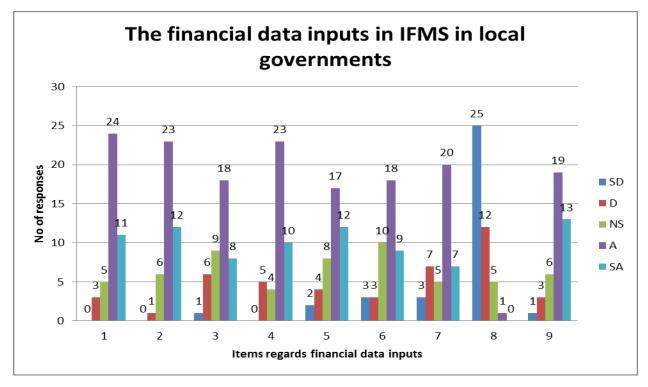
4.3.9 The system data entry process addresses the legal requirements of a Local government

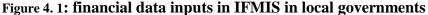
Given a mean response of 4, this indicates that the system set and design addresses the legal financial management requirement of LGs. However with a standard deviation of 1, it means that there are some shortcomings on data entry system setup that do not address the legal requirements. Such short coming may vary from LG to another, for example on Inventory management and Receivables management.

With regards to IFMIS Inputs, the results from figure below shows that the respondent largely agreed that Data sources for the system are reliable, Legal data sources are used for data entry, Data entry personnel are committed to their work, Personnel responsible for Data

input are competent in their work, There are enough personnel to input information in the system, Data entrants in the system are not motivated enough to do their work ,Data entrants have got enough training to enter data in the system and the system data entry process addresses the legal requirements of a Local government. On the other hand the respondents disagreed with the items anybody can input information in the system.

The figure below shows the relationship between financial data inputs in IFMIS and financial Management in local governments





A number of problems accrued to financial data inputs were identified by the respondents including, failure to input data timely, Late reconciliations of bank accounts, Limitation of users working at ago on the system, Unreliable data sources, Un committed data entrants due to inadequate motivation, Unstable Connectivity Network, Computer Viruses, Network breakdowns, Unnecessary break down of the server, Sometimes the system is slow, challenges in identification of charge codes, Difference between chart of accounts and OBT, Poor budget capture caused by low less skills by users, Scarcity of trainers available to build capacity, Short time exposure to the system during trainings, Few data entry ports , breakdown of work flow systems, less training on of budget coding , Lack of knowledge/skills in management of the system as a whole, Network failures, and Power shortages /unstable power supply, inadequate web portal.

Many solutions to address the challenges of IFMIS inputs were given by informants among them including: Inputting data timely, Bank Reconciliation be done bi- weekly, Flex the program licenses to allow a reasonable number of users at ago, Motivate data entrants, Frequent system check-ups and maintenance, recruit more sector accountants for data entry, frequent training program, Ensure non interruptions of transaction process during inputs data in the systems, Continuous monitoring, Continuous training for the courses, Periodic reviews, Periodic training by responsible personnel, Training new entrants as they get recruited, One full year onsite training for manager/ and system Administrators, Use of program basic documents for obtaining data, Improve system glitches revision times, Provide more computers, Training of system users on a continuous basis, timely data entry and information sharing.

4.4 IFMIS Processing

Table 4.3: Descrip	ptive summary	of respon	ses by IFM	IS data p	rocessing

	Ν	Mean	Std. Dev	Min	Max
IFMIS processing					
The system budgeting processes is aligned to the legal budgeting process	43	4.0	0.8	1	5
The receipt processing design is matched to the Local Government lega	ıl 43				
requirements		4.1	0.7	2	5
The system fund requisition process is simple to the Users and timely	43	3.7	1.2	1	5
The system Local Purchase Order processing is user friendly	43	3.6	1.0	1	5
The System Local Purchase Order processing is always timely	43	3.0	1.2	1	5
The EFT Generation and processing timely	43	3.2	1.2	1	5
The payroll system process is user friendly and staff payments are processed	d 43				
timely		3.9	1.0	1	5
The General Journal processing and posting is simple to understand	43	4.0	0.8	2	5
The approval process is always done timely by the responsible officers	43	3.4	1.3	1	5
The System approval process is a reflection of the legal					
Requirements in the Local Government Finance and Accounting Regulations	43	3.6	1.2	1	5
There are reliable and strong control system in data processing	43	3.9	1.1	1	5
All responsible officers for financial processes are provided for in the system	n 43				
design		4.0	1.1	1	5
There is enough segregations of duties in the system	43	3.7	1.0	1	5
There is a reliable audit trail to be followed in financial data processing	43	3.0	1.2	1	5

4.4.1 The system budgeting processes is aligned to the legal budgeting process

With a Mean score of 4.0, it indicates that majority of the respondents agreed that the budgeting processes are aligned to the legal requirements. It further indicates that respondents have understood the relationship between the budgeting processes especially in OBT and the IFMIS budgeting processes. However with a Standard Deviation of 0.8, it indicates that some budgets items in the OBT cannot be aligned to the IFMIS and vice versa. It indicates that the Chart of Accounts in IFMIS may not necessary address the OBT requirements. Further the standard deviation is an indication that some users have not yet clearly understood the LG budgeting processes and their relation with the IFMIS budget cords and cording processes. The SD in the budgeting process causes a variation in the Vote Books, and Income Analysis reports, and the Expenditure/Budget analysis.

4.4.2 The receipt processing design is matched to the Local Government legal requirements

A Mean score of 4.1 indicates that the receipting processes is okay and matches with the LG legal requirements, However a Standard Deviation of 0.7 is a representation of a knowledge Gap by users of this processes, and or an inefficiency of the IFMIS process by the users or the beneficiaries. Where this SD remains constant, this causes variation the reports the dairy receipts registers and the Details of Revenue report.

4.4.3 The system fund requisition process is simple to the Users and timely

The Mean score of 3.7 indicates that respondents agreed that the funds requisition process is simple to understand and done timely, this creates assurance. However with a Standard Deviation of 1.2 indicates that some respondents find the requisition process difficult. In the event, some users may charge wrong budget lines. This makes the approval process longer due to the forth and back approval/disapprovals but also may lead to misrepresentation of final accounts in case there are wrongly charged budget lines.

4.4.4 The system Local Purchase Order processing is user friendly

With a mean of 3.6, respondents agreed that that the System LPO processing is user friendly. This creates assurance that this process is generally understood by the user. However the Standard deviation of 1.0 indicates that there are still some users who have not been exposed or training in the LPO processing. Where some users do not clearly understand this process, it means that the process with be abandoned and then resort to system short cuts, abandonments of the GRN processes and Inventory module. Further, abandoned LPOs will have encumbered funds for fund that are not actually paid out. At the end, the Vote books/Fund available by release report will have misrepresenting balances.

4.4.5 The payroll system process is user friendly and staff payments are processed timely

The Mean score of 3.9 indicates that the Payroll process is rather okey and efficient. However a Standard Deviation of 1.0 indicates that some users are not yet familiar, trained or exposed to the IFMIS payroll process. It further indicates that probably some beneficiaries take a longer time to receive their salaries. With such, this puts the payroll processing at risk of paying wrong benefices for salaries, but also updating General ledgers with wrong information.

4.4.6 The General Journal processing and posting is simple to understand

With a mean score of 4 this indicates the users understand the process of updating the system with journal and posting. However the Standard deviation of 0.8 represents those users who do not under the purpose and implications of journals. And where such users make wrong journals, the general ledger is updated with wrong information hence producing misleading financial reports

4.4.7 The approval process is always done timely by the responsible officers

The Mean response of 3.4 is an indicator of timely approval of transaction by Vote Controllers. This further implies efficiency in transaction processes. However a Standard Deviation of 1.3 indicates that a few approving officials are hardly in office to complete the transaction process. This, in a long run delay the LPO processing, GRN Processing and EFT processing which cripple service delivery.

4.4.8 The System approval process is a reflection of the legal requirements of LGs

The mean response of 4.2 shows that the system workflows/approval processes reflects the legal requirements of the LGs. However a Standard Deviation of 0.8 represents the discrepancies and in in satisfaction of users on some workflows/approval processing for

example on GRNs, LPO, General Journals, Accountability for Conditional grants Accountabilities, Bank reconciliations processing and posting receipts. Where the workflows/approval processing on the mentioned processes and the position of the Internal Auditor is not well laid out, more mistakes are prone to happen for example, over accountability for Conditional grants, receipts of revenues on non-budgeted lines, posting wrong bank reconciliation statements, and transacting on activities that are not included on work plans.

4.4.9 There are reliable and strong control system in data processing

With a mean response of 3.9, it's an indication that the system controls are strong in data processing. However, with a Standard Deviation of 1.2, it show that there are still control loophole in the data processing, for example bypassing some key transaction processing for a specific payment. For example neglecting the requisition process/LPO/GRN process for a a payment of Supplier but only raise a System Direct Invoice for the same supplier, raising a Direct Staff payment instead of Staff payment for the same Staff members. This will automatically mislead management in exception reports and are contra to the Legal requirements

4.4.10 All responsible officers for financial processes are provided for in the system design

With a mean response of 4.0, it indicates that all responsible officers are provided for in the systems design. However, a Standard deviation of 1.1 is an indication that there are some officers who fell left out in the transaction processes. Such user includes the internal auditors who are only set up as normal Heads of Departments and the audit responsibility in not clear in the systems. Further some users would with to have some responsibilities for transaction processing but the system design does not provide for this. For example Cashiers cannot access financial report reports the Income Statements. Details of Revenue, and the Trial

balance. This makes it difficult for such users to follow the implication of what they do, on the system outputs for example the financial reports.

4.4.11 There is enough segregation of duties in the system

The mean response of 3.7 indicates that there is enough segregation of duties. This means that the system controls are also strong. However the Standard Deviation of 1.0 implies that the system set up gives some user more responsibilities and other users felt left out on responsibilities that are within their scope of appointment. Where some users are seen to be overload with particular system responsibilities, the efficiency levels in financial management will be low.

4.4.12 There is a reliable audit trail to be followed in financial data processing

A mean response of 3.0 indicates that majority of the Users are not sure or do not know how to follow the system audit and transaction trail in data processing. This means that transaction may be left hanging or abandoned on the system because users cannot trace the stage at which their transactions could be. This grand error may leave a lot of funds being committed/ encumbered when actually they will never be paid. Further it makes transaction processing delay as users may fail to follow up on the transactions that they raised on the system. However a Standard Deviation of 1.2 indicates that some users know what to do and understand the trail, though they may not be sharing their knowledge with others who may not know the audit trail.

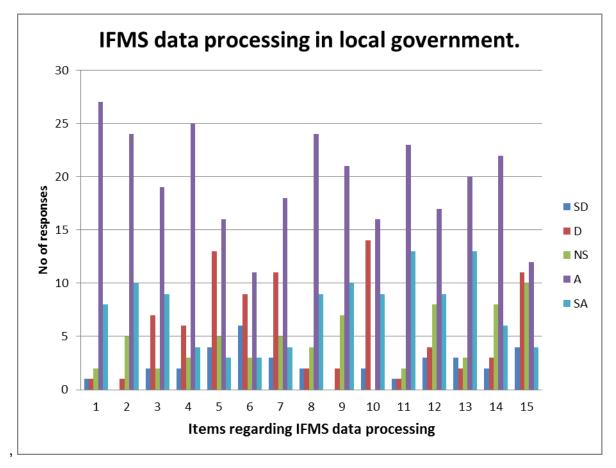
With regards to IFMIS Inputs results from Table 4.3 shows that the respondent largely agreed that The system budgeting processes is aligned to the legal budgeting process, The receipt processing design is matched to the Local Government legal requirements, The system fund requisition process is simple to the Users and timely, The system Local Purchase Order processing is user friendly, The payroll system process is user friendly and staff payments are processed timely ,The General ledger posting process is relevant for data processing The approval process is always done timely by the responsible officers, The System approval process is a reflection of the legal ,Requirements in the Local Government, Finance and Accounting Regulations. There is reliable and strong control system in data processing; all responsible officers for financial processes are provided for in the system design, there is

enough segregation of duties in the system and there is a reliable audit trail to be followed in financial data processing.

On the other hand the respondents disagreed with the items such as: The System Local Purchase Order processing is always timely, The EFT Generation and processing timely, and Staff responsible for the approval processing are well motivated to do their work.

The relationship between IFMIS data processing and financial management in local governments

The figure below shows the relationship between IFMIS data processing and financial management in local governments





A number of problems accrued to IFMIS processes were identified by the respondents including; Laxity and relaxation of system users, inadequate supervisors, Delays in effecting EFTs paid by the CFO, Network failure, Failure to complete approval process in time, Appearance of system error before completion of transactions, Slowness of the network, Restricted program licenses, and failure to transact outside work station.

Solutions to address the challenges of IFMIS processes for better financial management were given by the various key informants including sensitization of users, Intensify supervision, and purchase of more user licenses at time and allowing the system operation to be web based, Staff motivation and more on-site support by specialists.

4.5 IFMIS Outputs

(N)	Mean	Std. Dev	Min	Max
43	4.0	1.4	1	5
43	4.0	0.8	2	5
43	2.7	1.4	1	5
43	4.4	0.8	2	5
43	4.0	0.9	2	5
	43 43 43 43 43	43 4.0 43 4.0 43 2.7 43 4.4 43 4.4	Dev 43 4.0 1.4 43 4.0 0.8 43 2.7 1.4 43 4.4 0.8	Dev 43 4.0 1.4 1 43 4.0 0.8 2 43 2.7 1.4 1 43 4.0 0.8 2 43 2.7 1.4 1 43 4.4 0.8 2

Source: Primary Data

4.5.1 The use of EFTs is better than the Cheque System

With a mean response of 4.0, it means that the use of EFTs is better than the Cheques. However a Standard Deviation of 1.4 indicates that some users are not happy with the EFT process. This may because, there is less sensitization of beneficiaries on the EFTs processing but also that some EFTs take so long to mature through the banks.

4.5.2 The system can produce exceptional reports

A mean response of 4.0 show that the system can produce exceptional reports to aid management reports. However a Standard Deviation of 0.8 indicates that some users have not trained or taken an initiative to learn how to run the same reports. This leaves a gap in management follow-up one would wonder who such users follow up financial performance.

4.5.3 The system can produce all the required vouchers (receipts, payment vouchers, LPOs, and GRNs) to facilitate hard copy data records.

With a mean response of 4.4, it indication all the require voucher are produce by the system. However a standard deviation of 0.8 is a representation of small gap on the vouchers produced eg on the GRN. This leave room to Voucher improvement by the system analyst and the voucher redevelopments in order to address the needs of the users.

4.5.4 With IFMIS in financial Management, there is better value for money in the LG operations

With a mean response of 4.0, it's concluded that all IFMIS has brought value for money in the operation of LGs. However an SD of 0.9 means that there are some users who have not yet understood the purpose of IFMIS in financial management or even, those users that are still anti-IFMIS for the implementation of government programs. This draws attention for the observation by Joshi (2012) in Malawi where he states that the project of IFMIS implementation encountered numerous difficulties including: the project implementation team not being well resourced, and being dismantled even before the implementation was completed, Change management and communication activities did not receive adequate attention. Where change management is still not done satisfactory amongst users, and there will always be communication gap.

4.5.5 The system reports require a lot of manipulation in order to reflect the true position of the financial operation

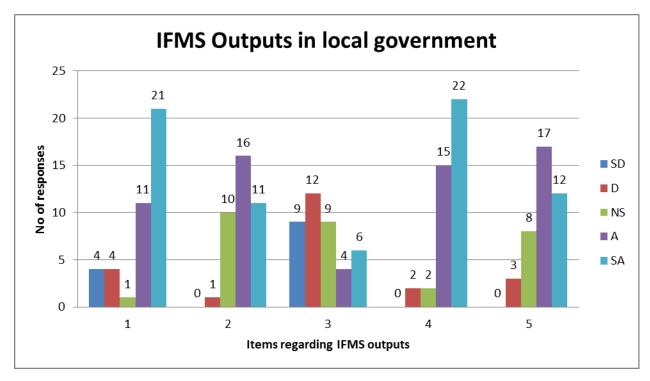
A mean response of 2.7 represent the system reports do not require manipulation in order to reflect true position of the financial operations. However a standard deviation of 1.4 is quite significant and may be a representation of the officers who prepare final accounts and they are confirming that they actually manipulate system reports in order to reflect the true position of the accounts. This is confirmed by earlier discussions where some of the source information is not reliable, charging of wrong budget lines, and the challenges in the system budgeting processing.

With regards to IFMIS Output results from figure shows that the respondent largely agreed that, the use of EFTs is better than the Cheque System, The system can produce exceptional reports, The system can produce all the required vouchers (receipts, payment vouchers, LPOs, and GRNs) to facilitate hard copy data records, and with IFMIS in financial management, there is better value for money in the LG operations.

On the other hand the respondents disagreed with the items such as: The system reports require a lot of manipulation in order to reflect the true position of the financial operation

The relationship between financial data outputs in IFMIS and financial management in local governments.

The figure below shows the relationship between financial data outputs in IFMIS and financial management in local governments





Some problems were identified in IFMIS Out including regularities and delays in productions financial reports, and delays in EFT generations. However, users accrued all these challenges associated and embedded, IFMIS Inputs and IFMIS Processes

Solutions to address the challenges of IFMIS outputs were given by informants including Mentoring of the system users to generate regular and better reports, Sensitize of stakeholder about the overall operation of IFMIS, regular analysis of the reports Supervision of system users.

4.6 Financial Management

	N	Mean	Std. Dev	Min	Max
IFMIS and Financial Management					
Data entry process is timely	43	3.9	1.1	1	5
There is enough support to Data entrants in order to perform their	:43				
duties		3.2	1.2	1	5
The data entry process is complex to understand	43	2.6	1.1	1	5
The budgeting process is simple to understand	43	3.5	1.1	1	5
Receipts are generated on a timely basis	43	3.8	1.0	1	5
The System Goods Received Note(GRN) generation process is user	43				
friendly and timely		3.5	1.1	2	5
Bank reconciliation process is simple and user friendly	43	3.8	1.1	1	5
The payment process is simple to understand by Users	43	2.9	1.3	1	5
The payment process is done timely	43	4.0	0.8	2	5
The audit trail of financial data processing is simple to follow	43	3.2	1.0	1	5
Financial data processing is not user friendly	43	2.6	1.0	1	5
EFTs take a reasonable time to mature/clear	43	2.9	1.3	1	5
The system generates financial reports as per the legal requirements	143	4.2	0.8	2	5

Source: Primary Data

The respondents agreed that

4.6.1 Data entry process is timely

A mean response of 3.9 indicates that the Data entry process is timely by the Account assistants. However the SD of 1.1 indicates that some respondents are not comfortable with the delays that comes with data entrants. This may be because of untrained personnel, unmotivated personals of fewer personnel. Delays in data entry will further make the system approval process appear to be taking a long time.

4.6.2 The budgeting process is simple to understand

A Mean response of 3.5 represent that respondents are generally comfortable with the system budgeting process however, the SD of 1.1 leave a benefit of doubt that some user do not understand the budgeting process. And where some user do not understand the system budgeting process, it's an accountability for generation of transaction without budget lines that in a long with fail the production of final Accounts. Where some users are do not under the budgeting process and its implication in implementation/budget execution process, they may also end up abandoning some transaction that are half way approved or posted without necessarily paying them. Such transaction commit/encumber fund on the budget when actually they will at the end of the Accounting period they are not paid.

4.6.3 Receipts are generated on a timely basis

A mean response of 3.8 indicates that receipt are generated on a timely basis. This enables management to keep track of Revenue reports of on a timely basis. Further it facilitate reconciliation of revenue accounts on a timely basis. The SD of 1.0 represents a delays in the receipting process by the Cashiers. This makes delays bank reconciliation and production of partial revenue reports. Where revenue are not updated on the system on a timely basis, the income statement will not be collect, the Reserves account on the balances will be wrong, the Cash flow statement will be misrepresents and the details of revenue reports will have misrepresenting information.

4.6.4 The System Goods Received Note (GRN) generation process is user friendly and timely

A mean response of 3.5 represent that Users are comfortable with the GRN process and that they are done on a timely basis. The SD of 1.1 indicates that some users are not trained on the GRN process and may not necessarily know the implication of GRNs in the transaction process. Where some users do not understand the GRN process, they may not again match such GRN on System invoices but rather raise fresh Invoices for such Transactions. In the event, the system will have two encumbrances for the same transaction on the budget. In a long run other transaction will fail budget checks on such budget lines. This will break down the transaction processing or users may choose to charge any another budget lines in order to have money out the process. This further causes a falsification in the final accounts

4.6.5 Bank reconciliation process is simple and user friendly

With a mean response of 3.8, it means that users are comfortable with the bank reconciliation process. However the SD of 1.1 means that some minority users have not yet mastered the process or they are not motivated to make such bank reconciliation on a timely basis. With such delays, it may not be possible for a local government to reconcile its cash book and the bank statements. This make it possible for erroneous/fraudulent transaction be effected by on bank accounts in Commercial banks as reported by the Auditor's General's Report of FY 2012/13. Further where all reconciliations are made manually without any automation of uploading the bank statements, the process is made a little difficult.

4.6.6 The payment process is done timely

A Mean response of 4.0 is an indicator that the payment process is done on a timely basis and Users are comfortable with the process. However the SD of 0.8 is an indicator that probably some payment approval process takes so long, but also that a few users have not conversant with the payments. Where user users are conversant with the process, some transaction will take so long to have EFTs generated, or payment by use of wrong bank accounts.

4.6.7 The system generates financial reports as per the legal requirements

The mean Score of 4.2 is an indicator that the well realigned to the legal requirement in the various Acts and Regulations. However the SD of 0.8 indicates that there are few discrepancies in such reports given the legal requirements for examples unbalancing Trial balances, failure by the system to update some reports with some transaction like virements/reallocations. Further failure to produce some management reports like some project and Departmental Income Statements/balances sheets, make it difficult for management to make some financial decisions.

4.6.8 There is enough support to Data entrants in order to perform their duties

A Mean response of 3.2, indicates that Users have not got enough support while executing their responsibilities. Such support arrangements include functional support and management

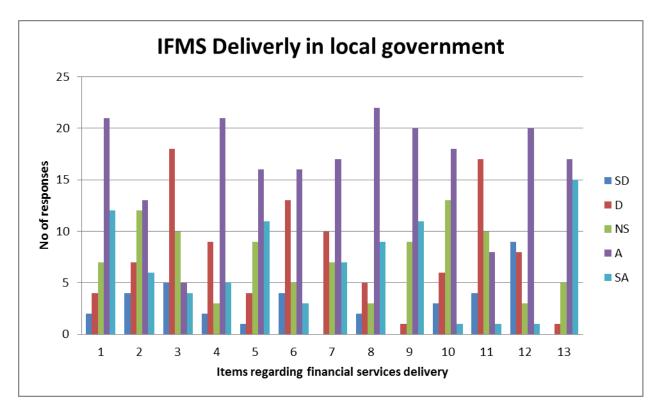
support from the Support Centres from Ministry of Finance and Ministry of Local government. Where the support from the mentioned Centres is minimal, insufficient or inconvenient, the Local government are prune to get enormous functional mistake, that are the end reflected in delays in payments, receipting and misleading financial reports that require manipulation at the end of the financial years. However with SD of 1.2 it means that probably the support has been given to users selectively especially for those that have individual created personal relations with the support centers.

4.6.9 The audit trail of financial data processing is simple to follow

With a mean response of 3.2, it means that Users are not conversation with following the system audit trails of transactions. This may be a result of less training received on the process. Where users cannot follow the audit trail of transactions, it makes it difficult to follow transactions and trace for mistakes and personnel involved the transaction processes.

4.6.10 EFTs take a reasonable time to mature/clear

With a mean Score of 2.9, respondent/users were not comfortable with the time it takes for an EFT to mature. This may be because of Net failures, System failures, and Server break downs at the LGs, MoFPED, BOU or the Commercial Banks. Where EFTs take so long mature, this confirms why some respondent preferring Cheques for the payment process. Further this mean make indicates that probably some respondent are not aware of the follow-up process for delayed EFTs





The respondents majorly agreed that Data entry process is timely, The budgeting process is simple to understand, Receipts are generated on a timely basis, The payment process is simple to understand by Users, The payment process is done timely, Bank reconciliation process is simple and user friendly, The audit trail of financial data processing is simple to follow, EFTs take a reasonable time to mature/clear, The system generates financial reports as per the legal requirements

On the other hand, the respondents disagree that there is enough support to Data entrants in order to perform their duties, the data entry process is complex to understand and The System Goods Received Note (GRN) generation process is user friendly and timely, EFT take a reasonable time to mature.

4.7 Summary statistics on Latent constructs

Table 4.6 presents the descriptive statistics of IFMIS inputs, process, output and financial management that is to say, minimum, maximum, and mean and standard deviation values. Mean values were computed from data coded from strongly disagree (1) to strongly agree (5). The mean scores from 3.35 and above indicate an agreement while those below 3.35 indicate a disagreement. Table 4.6 presents summary statistics of responses for the various constructs.

Latent constructs	Ν	Min	Max	Mean	Std. Dev
Inputs	36	2	4	3.5	0.486
Processing	28	2	5	4	0.506
Outputs	37	2	5	3.8	0.606
Financial Management	29	2	4	3.3	0.464

Table 4.6: Summary statistics on Latent constructs

Source: Primary Data

Note. Summary statistics are based on average indices Note. Variations in totals is due to missing data

According to Table 4.6, all the constructs (inputs, processing, outputs and financial management) have a high mean of four. This implies that the respondents are highly competent in the various aspects of IFMIS. This further implies that generally, the respondents agreed to all the themes of the study- input (Mean=3.5, SD=0.49), Processing (Mean=4, SD=0.5), and Output (Mean=3.8, SD=0.6). On the other hand, the respondents seemed to disagree and are yet not comfortable with IFMIS at a tool for financial management (Mean=3.3, SD=0.464).

This means that though Users/respondents clearly understand their responsibilities financial Management, IFMIS has not yet given them an absolute solution to their problems given the various dimensions of their work. This is most likely because users have not been given enough functional and financial support during execution of their duties by IFMIS. The two issues seem to be pertinent in financial management with IFMIS as a tool.

4.8 Inter latent construct correlations

Table 4.7 presents the nature of the association between the different constructs of input, processing, output and financial management using a Pearson correlation.

latent construct	p-value	Corr	p-value	corr	p-value	corr
	(Inputs)		(Processing)		(Output)	
1.Inputs		1.00				
2.Processing	0.0073	0.4649**				
3.Outputs	0.201	0.2673	0.000	0.6786**		
4. Financial management	0.0057	0.5761**	0.000	0.9013**	0.010	0.6851**

Table 4.7: Inter latent construct correlations

Source: Primary Data. Note: ** implies that the construct were significantly related at 95 % CI

4.8.1 Univariate Level of Correlation

From Table 4.7 it can be observed at a 95 percent level of significance that: there is a significant relationship between Input and Processing (p=0.0073) that is positive correction of 0.4649 and there is a significant relationship between outputs and processing (p=0.000) that is positive (0.6786).

4.8.1 Bivariate Level of Correlations

Regarding financial management, there is a significant relationship between IFMIS inputs and financial management (p=0.0057), the relationship is positive (corr=0.5761). This means that at a binary level, 57.6% of the variations in financial management can be accrued to IFMIS inputs.

Also, the relationship between processing and financial management is significant (p=0.0000), the relationship is positive (corr=0.9013). This means that the binary level 90.13% of the variations in financial management can be accrued to financial services processes.

It can also be noted that the relationship between outputs and financial management is significant (p=0.010). The relationship is positive (corr=0.6851) and at a binary level 68.5% of the variations in financial management can be accrued to financial outputs.

Since all the themes are significant at the bivariate level, the three independent variables of IFMIS inputs, process and output will be included in the multivariate level for assessment of their net impact on the dependent variable.

4.9 Multivariate analysis results

The relationship of integrated financial management information systems and financial management was assessed at the multivariate level to know the net impact of the three independent variables of IFMIS inputs, process and output on financial management. Table 4.8 presents an assessment of the relationship of integrated financial management information systems and financial management in a Linear Regression (LR).

latent construct	Coef	St.error	t	P value
Age				
18-30	0			•
31-40	0.430	0.191	2.25	0.048
41-50	0.406	0.209	1.94	0.08
Above 50	0.576	0.241	2.38	0.038
Gender	-0.012	0.114	-0.11	0.918
Male				
Female	-0.012	0.114	-0.11	0.918
Marital Status				
Single	0		•	
Married	-0.014	0.127	-0.11	0.914
Education Level				
Certificate	0		•	
Diploma	-0.089	0.303	-0.29	0.776
Degree	0.126	0.166	0.76	0.466
masters	-0.087	0.177	-0.49	0.633
designation of employment				
Head of department	0		•	
Senior officer	0.041	0.131	0.32	0.758
Officer	0.045	0.121	0.37	0.718
Inputs	0.197	0.114	1.72	0.115
Processing	0.539	0.169	3.18	0.01
Outputs	0.016	0.018	0.88	0.401
constant	-0.167	0.435	-0.38	0.708

 Table 4.8: Determinants of Financial management

Source: Primary data

From Table 4.8 it can be observed that at a 95 percent level of significance that: there is a significant relationship between financial management and IFMIS processing (p=0.01). Further its noted that the higher the level of the processing items/dimension the better level of financial management (coef.=0.539).

The model

$$FM = -0.167 + 0.1975d_1 + 0.539d_2 + 0.016d_3....(4.1)$$

Where:

FM represents Financial Management

d_i represents IFMIS financial data inputs

d_i represents IFMIS financial data process

d_i represents IFMIS financial outputs

On the other hand, it's noted that there is no significant relationship between outputs and financial management (p=0.401) the coefficience is 0.016, also there is no significant relationship between the inputs and financial management (p=0.115) and the coefficience is 0.197.

The significant relationship between IFMIS processing and financial management is also supported by Fisher's Information, Communication and Systems Theory, when he assumes that information is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the person receiving it.

Further, Okello (2012) notes that the choice of IFMIS by governments can reform and improve processes and procedures for more efficient and effective financial management in local governments. As such Government can clearly improve financial management through the proceeding issues due to the direct relationship between the two valuables. However, his rational of providing better IFMIS input and output to realize improved financial management is not supported since the study concludes that IFMIS input and output are not significant predictors of financial management.

On the other hand, according to Emerson, 1971 in his reward theory, the issue of significant and positive relationship between IFMIS process and financial management is supported. However, worth noting is that the same does not hold with regards to findings from this study since it was concluded that IFMIS input and out puts are not significantly associated to financial management.

The results are not surprising since it's at budgeting level that financial statement are realigned in terms of Cost Centers, Projects General Ledger Codes and medium Term Expenditure Frame work(MTEF). Where the Itemization of the approved budget is got wrong, the outputs in terms of various reports will be messed. Also, it's at the processing stage where Revenue receipts are made for example where non budgeted ITEMs or receipts on wrong customer codes, the system cannot produce the right exceptional reports for example the, the vendor aging reports, Staff advance reports, Customer ageing reports, the details of expenditure and the details of revenue reports. And in cases where wrong Revenue Journal Lines are quoted during receipting, the Revenue reports will be misrepresented.

Further, where system requisitions are raised, approved but abandoned, further requisition cannot pass budget checks because fund are encumbered. The same will hold when LPOs and GRNs are done and abandoned without matching them with Purchase Invoices, the various budget lines will have encumbered funds but not really paid. In case a payment voucher is raised for a vendor/employee who bank details were incorrectly entered, an EFT will be done, but will bounce back to the LG. And where a Requisition/staff Advance is raised on a wrong budget line for example an Allowance being raised on stationary General Ledger Code, such a transaction will be approved, but will an error of original entry that will misrepresent the financial reports. Also, where a transaction meant to be a Staff advance is raised as a Direct Staff Payment, such a transaction will mature; however, such an advance cannot be tracked for accountability because of the error of original entry.

The above issues are thus well in support of the fact that when all factors are put into consideration IFMIS processing is deemed to be the greatest influencer or predictor of improved financial management.

4.10 Diagnostic tests

The link test was carried out on the linear regression to make sure that the model was correctly specified.

	Coef.	Std. Err.	Т	р
_hat	.9644309	.1367171	7.05	0.000
_hatsq	.1010525	.0584518	1.73	0.084
_cons	281805	.3007651	-0.94	0.349

Table 4.9: Diagnostic test

From Table 4.9 it's observed that the model fit in the linear regression is correctly specified using a model specification link test. It basically checked whether we need more variables in

our model by running a new regression with the observed Y(csat) against Yhat(csat_predicted or X β) and Yhat-squared as independent variables. The thing to look for here is the significance of _hatsq. The null hypothesis is that there is no specification error. Since the p-value of _hatsq is not significant then we fail to reject the null and conclude that our model is correctly specified.

4.11 Discussion of the results

This study noted that at one level, the three segments of Integrated Financial Management (input, processing and output) are all significantly associated with financial management (p<0.05). On the assessment of the net impact of IFMIS input, process and out puts on financial management, it's noted that there is no significant relationship between outputs and financial management, also there is no significant relationship between the inputs and financial management (p>0.005). The study concluded that at a 95 percent level of significance, there is a significant relationship between financial management and IFMIS processes (p=0.01). Further its noted that an improvement IFMIS processes causes an improvement financial management (coef.=0.539). The above statement may not be limited to issues that were earlier discussed but also accrues to the fact that where in budgeting, the Fixed assets is not realigned to the Posting groups, it becomes impossible to requisition for fixed assets because various posting groups are attached to specific General Ledger. Further, where the Items posting groups are not respected in budgeting, it becomes impossible to requisition for Items for budgeting purposes since, the budget is not realigned to the budget. Also, during EFT generation, and a wrong bank account is quoted by the paying officer, such an EFT will mature, but from a wrong bank accounts. Such an EFT is further bounce back by the Bank because it won't hold a bank confirmation letter for clearance. The entire process of paying such an EFT has to be restarted once again. It should also be noted that in Bank Reconciliation: where the responsible officer do not reconcile their bank accounts it's become impossible to establish the actual cash and cash equivalents and at the end of a given period. And where reconciliation are done but not posted, the involved lines in such reconciliation will continue to appear in other months, in case reconciliation is to be done.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings, conclusions recommendations and finally recommendations for further research.

5.2 Summary and Conclusions

5.2.1 The relationship between IFMIS data inputs and financial management in local governments.

The study sought to establish the relationship between financial data inputs in IFMIS and financial management in local governments. The effect of financial data inputs on financial management was analysed by looking on the respondents' views in respect to effectiveness, efficiency and value for money. Findings show that at a 95 percent level of significance that: there is a significant relationship between inputs and financial management (p=0.0057) and correlation coefficience of 0.5761. This means that at bivariate level IFMIS inputs accounted for 57.6% change in financial management.

5.2.2 The relationship between IFMIS data processing and financial management in local government.

This study sought to investigate the relationship between IFMIS data processing and financial management in local governments. Automation of financial data processes in the system is set to handle receipting, purchasing, payables, receivables, fixed assets, Inventory managements, cash management and General Ledger. Its intended purpose was to reduction the cost of production' compliance with the laws, and to remove the inefficiencies associated manual financial accounting in the Local Government administrations.

Findings show that there was a strong positive relationship between processing and financial management (p=0.0000), and correlation coefficience of 0.9013. This means that at a bivariate level, IFMIS data processing accounted for 90. 1% change in financial management. This makes this the most significant hypothesis of the study. Further its noted that the better; the level of IFMIS processing item the great the IFMIS Output.

5.2.3 The relationship between IFMIS Outputs and financial management in local government.

Findings show that there was a strong positive relationship between IFMIS Outputs and financial management in local government whereby better outputs contributed to improvement in financial management and poor outputs contributed to inefficiency financial management. IFMIS Outputs accounted for 68.51% change in financial management.

5.3 Conclusions

5.3.1 The relationship between financial data inputs in IFMIS and financial management in local governments

This study has shown that IFMIS Inputs plays an important role in enhancing financial management in Local Governments. Proper IFMIS Inputs play an important role in the quality of outputs hence improving financial management.

5.3.2 The relationship between IFMIS data processing and financial management in local governments

Based on the findings, out of the three hypotheses this was most supported: there is a significant relationship between IFMIS data processing and financial management in local government at a correlation of 0.9013. This is very essential since processing is accrued to a large piece of the financial management outcomes for examples, abandoning posted invoices which created liabilities on the balance sheet. Also, where non-Cash-flow transactional Journals for example direct transfer by the donor/agency or ministry are done directly to the beneficially personnel or LG sub institution for example a school or Health Centre, and the officer in charge of journals miss interprets what General Ledger codes to be charged, posting of such journal misrepresents the final accounts – the opposite of this issue is also very true. Further, Delays/absence of approving officer, to make various system approval make the transaction processing take so long hence delaying service delivery and in cases where this issue is addressed the counter of this is realized. Last but not least, delays in maturity of processed EFT due to Network breaks downs or failures also make financial management constrained.

5.3.3 The relationship between IFMIS Outputs and financial management in local government

This study has shown that though IFMIS Inputs plays a role in enhancing financial management in Local Governments though, it cannot solely necessarily define efficiency, and effectiveness in financial management since it highly depends on input and processing. Therefore there is a less significant relationship between IFMIS outputs and financial management.

5.4 Implications

The implication of this study is that IFMIS data processing plays an important role in financial management in local governments. Thus, MoFPED, MoLG, FINMAP and stakeholders need to put more efforts around IFMIS data processing support in order to enhance financial management in local governments.

5.5 Recommendations

5.5.1 IFMIS Financial data inputs and financial management in local governments.

The implementing entities need to put in place measures to supports Local Governments in a bid to improve the quality of data inputs of IFMIS in order to improve the outputs. There is need to put emphasis on the quality of data inputs in relations to the expected outputs in complementing financial management. User should be given enough and relevant trainings and literature about the IMFIS data inputs, operation environment and any other information that may facilitate the quality of data inputs.

5.5.2 IFMIS data processing and financial management in local government.

The system support arrangement and trainings for IFMIS should be geared toward Users' understanding of the various processes and implication, given the system design to address the intended outputs during financial management. Further, more Change Management sessions for IFMIS should continuously be undertaken by the implementers in order to bring about Users' Ownership and taking full accountability of this Public Financial Management Reform. In the event, the System Users who are key at all levels of IFMIS, will ensure that the intended purposes of efficiency, effectiveness and value for money are achieved.

In a bid to further improve IFMIS data processing a number of other recommendations can be implemented by the government to improve financial management in the local governments including: timely data input, bi-weekly reconciliations of bank accounts, increase in Users' license to allow a reasonable number of users at time, motivation of data entrants, frequent system checkups and maintenance, Since IFMIS data processing play the most important role in financial management, the above recommendation will lead to better realization of outcomes from IFMIS as a PFM Reform tool in Local government operation.

5.5.3 IFMIS Outputs and financial management in local government.

The implementing entities should facilitate Local governments in increasing system users especially the Finance Departments frequent refresher trainings in the various system modules and basic computer applications, periodic reviews of the system operations by the support team at MoLG and MoFPED, sensitization of users and mentoring of the system users to generate regular and better reports and sensitize stakeholder to analyse the reports. Through training, staff will get to know and understand that the importance of report and how the come about. Training can improve Users' skills so that they are more accountable to the various IFMIS outputs including delayed EFTS, and management reports.

5.6 **Recommendations for further research**

This study was conducted to assess the relationship between IFMIS inputs, processing and outputs on financial management. A number of studies need to be carried out to explain the three arms of IFMIS in detail that is IFMIS input, processing and output. The study should look deep into each of these aspects so as to understand their particular implications on financial management.

Also studies geared towards the laws, system design, local government official's knowledge and understanding of the integrated financial management systems will be very beneficial to the country in the bid to understand what affects the various levels of financial management in LGs.

REFERENCES

Anipa S, Kaluma F. and Muggeridge, E. (1999) MTEF in Malawi and Ghana: Case Study, DFID Seminar on Best Practice in Public Expenditure Management

Attwood, F.A and Stein N. D 1989 DEAULAS AUDITING 17th Edition, London, Pit man Publishing Adrew R. Donaldson(2006) Aspects of the New Public Finance, Issn 1608-71430ecd Journal On Budgeting Volume 6 – No. 2 © Oecd 2006

Baloyi, M.R.,(2011), 'Address by the Minister for Public Service and Administration, Mr Masenyani Richard Baloyi, at the Integrated Financial Management System (IFMIS) Human Resource (HR) go live celebration Pretoria Zoological Gardens', viewed 10 April 2011, from http://www.info.gov.za/speech/DynamicAction?pageid=461& sid=17409&tid=3100

Barata, K. & Cain, P., 2001, 'Information, not technology, is essential to accountability: Electronic records and public-sector financial management', The Information Society 17, 247–258. http://dx.doi.org/10.1080/019722401753330841

Bigg W. (1988) SPICER AND PLEDGE'S PRACTICAL

Champers and Counts (1997) COMPUTERIZED AUDITING 3rd Edition Book Power

Chandraza Khran R.K (1988) ROLE OF SUPREME AUDIT INSTITUTIONS IN SETTING STANDARDS AND REVIEWING INTERNAL MANAGEMENT CONTROLS

Chene, A, Copper B (2008), Public Financial Management in an a Computerized environment

Cooper, D.R. & Schindler, P.S. (2006), Business Research Methods, 9th edn., McGraw Hill, Boston.

Cosserat (1992) AUDITING INVESTIGATION

Delta Partnership and Reev Consult, 2013. Mid-Term Review of the National Development Plan: Political Economy Thematic Report, August 2013- National Planning Authority

Diamond, J. & Khemani, P.(2006), 'Introducing financial management information systems in developing countries', OECD Journal on Budgeting 5(3), 97–132. http:// dx.doi.org/10.1787/budget-v5-art20-en

Diamond, J. and Khemani P. (2005) Introducing Financial Management Information Systems in Developing Countries, International Monetary Fund.

Diamond, Jack and Pokar Khemani (2005), "Introducing Financial Management Information Systems in Developing Countries," International Monetary Fund.

Dorotinsky, B.(2003), implementing financial management information system projects: The World Bank experience, viewed 06 April 2011, from http://blog-pfm. imf.org/AIST2/Dorotinsky.ppt

Dorotinsky, William and Junghun Cho (2003). "The World Bank's Experience with Financial Management Information System (FMIS) Projects", Washington, D.C.: World Bank, PRMPS, draft, 4/16/03.

Emila woolf (1998) AUDITING TODAY 5th Edition Prentice hall Printery

Ephrem Asebe, Dan Mambule (2006), World Bank and Ministry of Finance, Planning and Economic Development; Evaluation Report: The Integrated Financial Management System (IFMS) Implementation in Uganda

FINMAP (2006/07) Annual report

FINMAP (2007/08) Annual report

FINMAP (2008/09) Annual report

FINMAP (2009/10) Annual report

FINMAP (2010/11) Annual report

Florence Kuteesa, Ishamael Magona, Maris Wanyera and Wokadala James. Journal on Budgeting Volume 6- No. 2, "A Decade of Budget Reform and Poverty Reduction" Guidelines on the Management of the Decentralized payroll

Frank Wood and Songster (1996), BUSINESS ACCOUNTING 2nd, 7th Edition Pitman Publishing.

Granlund, M. and Malmi, T. (2002) Moderate Impact of ERPs on Management Accounting: A Lag or Permanent Outcome? Management Accounting Research, 13, pp.299-321

Gupta (1987) CONTEMPORARY AUDITING 5th Edition Book power

Gupta, K. (1989) CONTEMPORARY AUDITING 3rd edition New Delhi Mc GrawHill.

Hendriks, C.J.,(2012), 'Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa', SA Journal of Information Management 14(1), Art. #529, 9 pages. http://dx.doi.org/10.4102/sajim.v14i1.529

Hondeghem, A. (1998). Ethics and accountability in a context of governance Andrew public management. Amsterdam: IOS Press. (http://www.sars.gov.za/tenders/guidelines/general procurement_guidelines.pdf: June 2002)

Howcroft, D. (2006) Spreadsheets and the Financial Planning Processes: ACase Study of Resistance to Change, Journal of Accounting and Organisational Change, Vol. 2, No.3, pp. 248-280 http://www.independent.co.ug/news/news-analysis/7468-fighting-corruption-in-uganda

Inspector General of Government (2013), Third, National Integrity Survey report-Kampala

Jack Diamond and Pakar Khemani(2006), Introducing Financial Management Information Systems in Developing Countries, Oecd Journal On Budgeting Volume 5 – No. 3 © Oecd 2006 Issn 1608-7143 © Oecd 2006

Kakuru J.(2001) BASIC FINANCIAL MANAGEMENT, IBS

Kholeif, A., Abdel-Kader, M. and Sherer, M. (2007) ERP Customization Failure: Institutionalized Accounting Practices, Power Relations and Market Forces, Journal of Accounting and Organizational Change, Vol. 3, No. 3, pp. 250-299 Law of Uganda COMPANIES ACTS CHAPTER 110 Government Printery Entebbe.

Lawrence Semakula; Robert Muwanga (2012), Country Learning Notes, Uganda: Implementing an Integrated Financial Management System and the Automation of the Lianzuala, A. & Khawlhring, E., 2008, Mizoram IFMIS Project, viewed 06 April 2012, from http://www.docstoc.com/docs/39661608/Mizoram-IFMIS-Project

Lipsey gr.(1983) FIRST PRINCIPLES OF ECONOMICS, London Widewfled and Nicholson Ltd

Maake, B.(2012), IFMIS presentation to the CFO Forum, viewed 20 September 2012, from http://oag.treasury.gov.za

Makara, S (2009) Decentralization and Urban Governance in Uganda unpublished PhD Thesis University of Witwatersrand

Manson, S.; McCartney, S. and Sherer, M. (2001) Audit Automation as control within audit firm, Accounting, Auditing and Accountability Journal, Vol.14, No.1, pp.109-130

Mayega Samson (2005) THE IMPACT CONTROL COMPONENTS OF SALE MANAGEMENT. Case study of MBS fruit agencies

80

McGraw whill.t. (2000) AUDITING A COMPUTERIZED ENVIRONMENT Vicas Publishing House new Delhi India

MFPED (2012), Annual Budget Monitoring Report FY 2011/12, Kampala Uganda

MFPED (2012), Budget Monitoring and Accountability Unit Q2/Q3 FY 2012/13 Monitoring

MFPED (2012): Central Government Public Expenditure and Financial Accountability Assessment Report, September 2012- Kampala.

MFPED (2013), Budget Monitoring and Accountability Unit Q3 FY 2012/13, Kampala Uganda

MFPED (2014), Annual Budget Monitoring Report FY 2013/14, Kampala Uganda

MFPED (2014), Budget Monitoring Report Quarter One FY 2013/14, Kampala, Uganda

MFPED (2014), Budget Monitoring Report Quarters Two/Three FY 2013/14, Kampala Uganda

MFPED, 2014, Uganda Public Financial strategy, 2011/12 – 2016. Consolidating, Widening and Deepening PFM Reforms with a focus on Sequencing. Kampala.

MFPED, Internal Audit Reports Financial Years 2008-2012/13

MFPED, Uganda Public Financial strategy, 2014–2018: Consolidating, Widening and Deepening PFM Reforms with a focus on Sequencing. Kampala

MFPED,(December 2007) The Ugandan Debt Strategy

Mill champ A.H, (1996) AUDITING 7th Edition DP publication

Ministry of Finance, Planning and Economic Development (2008): Public Financial Management Performance Report 2008- Kampala

Namiiro Caroline (2005) INTERNAL CONTROLS SYSTEM AND THE SALES VOLUME. Case study of JMP Quality butchery

National Planning Authority, March 2010. "The National Development Plan, 2010/11-2014/15"

Nsubuga Martin (2012), ICT and Operation Efficiency in Government Project of Uganda Thesis Kyamogo University

Office of the Auditor General Annual Report of the Auditor General for the year ended 30th June, 2009. Local Authorities (Kampala 2009)

Office of the Auditor General Annual Report of the Auditor General for the year ended 30th June, 2010. Local Authorities (Kampala 2010)

Office of the Auditor General Annual Report of the Auditor General for the year ended 30th June, 2011. Local Authorities (Kampala 2011)

Office of the Auditor General Annual Report of the Auditor General for the year ended 30th June, 2012. Local Authorities (Kampala 2012)

Office of the Auditor General Annual Report of the Auditor General for the year ended 30th June, 2013. Local Authorities (Kampala 2013)

Office of the Auditor General: Annual Reports of the Auditor General for the Years Ended 30th June; 2008-2013, Volumes 1, and 2.

Otim.D, Nsiime D, Okino. K, Kakeeto R, Kasumba A, (2008), Operationalization of IFMS and GoU IFMIS User Manual

Pallot, J. (2000) Accounting, management and organizational change: a comparative study of local government, Management Accounting Research, Vol. 11 pp.213-29

Pandey (1995), FINANCIAL MANAGEMENT Vicas Publishing House New Delhi, India

Parry, M. (2005) Why government IFMIS procurements so often get it wrong? ACCA International Public Sector Bulletin, pp.4-7

Pathak, R.D., Naz, R. Singh, G. & Smith, R.F. (2010). ICT for Improved Public Service Delivery in Papua New Guinea Governance. JOAAG, Vol. 5. No. 1

Peters, L. (2002) Sound Budget Execution for Poverty Reduction, World Bank Institute, Washington DC

Pradhan, J. (2002) Information Technology in Nepal: What Role for the Government?, The Electronic Journal on Information Systems in Developing Countries (at http://www.ejisdc.org, accessed on 16th February 2009)

Richard R, Edward wand Norman. A.P (1998) SALES MANAGEMENT London (UK). Rosenberg J.M, Dictionary of BUSINESS AND MANAGEMENT 2nd Edition

Rodin-Brown, E., 2008, Integrated Financial Management Information Systems: A practical guide, viewed 06 April 2011, from http://pdf.usaid.gov/pdf_docs/ PNADK595.pdf

Rozner, S., (2008), Best practices in fiscal reform and economic governance. Introducing integrated financial management information systems, viewed 06 April 2011, from http://blog-pfm.imf.org/ pfmblog/files/ifmis_bpn_web1.pdf

Sachs, J. (2000) A New Map of the World, The Economist, June 22.

Saleumi W.A (1991) AUDITING SIMPLIFIED N.A Saleumi publishers Nairobi, Kenya.

Sassen, S. (2002) Towards a Sociology of Information Technology, Current Sociology, May, Vol. 50(3), pp. 365-388

Shekher and Shekher (1999) AUDITING FRAME WORK Vicas Publishing House New Delhi, India.

Suhas Joshi and John Moore (2010), IFMIS Systems in Pacifi Island and Counties- Lesson learned.

The Accountability Sector- Strategic Investment Plan (ASSIP) 2014-2019 "Transparency and Accountability in public service delivery".

Timothy Besley and Maitreesh Ghatak(2005), Reforming Public Service Delivery Journal Of African Economies, Volume 16, Aerc Supplement 1, Pp. 127–156 Doi:10.1093/Jae/Ejm026

Tsamenyi, M., Cullen, J. and González-González, J.M. (2006) Changes in accounting and financial information system in a Spanish electricity company: A new institutional theory analysis, Management Accounting (IFMS) Implementation in Uganda

USAID (2008) Introducing Integrated Financial Management Information Systems: Best Practices in Fiscal Reform and Economic Governance, Best Practice Notes

Uwaifo, S.O. and Kabadi, A.C. (2006) The Role of Information Technology in Local Government Administration in Delta State Nigeria: A Case Study of Aniocha North and Aniocha South Local Government Areas, Library Hi Tech News, Vol. 23, pp: 17-21

Van Deventer, L, (2003), Integrated Financial Management Systems (IFMIS) Project Overview, viewed 16 April 2011, from http://www.treasury.gov.za/ifms/secure/ default.aspx

Water W.(2009) PRACTICAL AUDITING HFL publishers limited London.

World Bank (1999) Uganda Second Economic and Financial Management Project (EFMP II), Project Document, Report No. PID6478

Zabihollla et al (2001) MANAGERIAL AUDITING Journal, Vol. 16

APPENDIX I:

Ν	S	Ν	S	Ν	S	Ν	S	Ν	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	306	8000	367
55	48	190	127	440	205	1500	310	9000	368
60	52	200	132	460	210	1600	313	10000	373
65	56	210	136	480	214	1700	317	15000	375
70	59	220	140	500	217	1800	320	20000	377
75	63	230	144	550	225	1900	322	30000	379
80	66	240	148	600	234	2000	327	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

TABLE FOR DETERMING SIZE FOR A GIVEN POPULATION

Note: N= Population Size S=Sample Size

Krejcie, Robert V., Morgan, Daryle W., "Determining sample size for research activities" Education and Psychological Measurement, 1970

APPENDIX II

QUESTIONNAIRE

Dear respondent,

My name is Henry Ssemanda, pursuing a Master's Degree in Business Administration (MBA) from Uganda Martyrs University, Nkozi. As a requirement for the award of this Degree, I am required to present a researched paper-dissertation.

It is for this reason that I designed a questionnaire to help me gather information about "Integrated Financial Management Information Systems (IFMIS) and financial management in Selected Local Governments in Uganda." The information given is purely for academic purpose and will be treated with confidentiality.

Thank you for your collaboration.

Self-Administered Questionnaire (SAQ):

SECTION A: BACKGROUND/PERSONAL INFORMATION

Please Tick your appropriate Choice

1. Age (Years): (a) 18-30 (b) 31 – 40 (c) 41 – 50 (d) Above 50
2. Gender: (a) Male (b)Female
3. Marital Status
(a) Single (b)Married
4. Level of Education
(a) Certificate (b) Diploma (c) Bachelor Degree
(d)Master's Degree (e) PhD
(f) other please specify
5. Status / designation of employment.
a) Head of Department b) Senior Officer c) Officer d) Political Leaders
f) Other (please specify)
6. In which Department do you work?

Section B

Please indicate to what extent you agree with the following statements by indicating (1) for Strongly Disagree (2) Disagree, (3) Not sure, (4) Disagree and (5) Strongly agree

- 1= Strongly Disagree,
- 2= Disagree,
- 3= Not Sure,
- 4= Agree,
- 5= Strongly Agree

1) The relationship between financial data inputs in IFMIS and d financial management in local governments.

Scale: 1= Strongly Disagree; 2= Disagree; 3= Not Sure; 4= Agree; 5= Strongly Agree

1	Data sources for the system are reliable	1	2	3	4	5
2	Legal data sources are used for data entry	1	2	3	4	5
3	Data entry personnel are committed to their work	1	2	3	4	5
4	Personnel responsible for Data input are competent in their work	1	2	3	4	5
5	There are enough personnel to input information in the system	1	2	3	4	5
6	Data entrants in the system are not motivated enough to do their work	1	2	3	4	5
7	Data entrants have got enough training to enter data in the system	1	2	3	4	5
8	Anybody can input information in the system	1	2	3	4	5
9	The system data entry process addresses the legal requirements of a Local government	1	2	3	4	5

a) Which problems are associated with data entry in the system

b) What can be done to improve Data input in the System?

2) Establishing the relationship between IFMIS data processing and financial management in local government.

Scale: 1= Strongly Disagree; 2= Disagree; 3= Not Sure; 4= Agree; 5= Strongly Agree

1		1			4	
1	The system budgeting processes is aligned to the legal	1	2	3	4	5
	budgeting process					
2	The receipt processing design is matched to the Local	1	2	3	4	5
	Government legal requirements					
3	The system fund requisition process is simple to the Users and	1	2	3	4	5
	timely					
4	The system Local Purchase Order processing is user friendly	1	2	3	4	5
5	The System Local Purchase Order processing is always timely	1	2	3	4	5
6	The EFT Generation and processing timely	1	2	3	4	5
7	The payroll system process is user friendly and staff payments	1	2	3	4	5
	are processed timely					
8	The General Journal processing and posting is simple to	1	2	3	4	5
	understand					
9	The approval process is always done timely by the responsible	1	2	3	4	5
	officers					
10	The System approval process is a reflection of the legal					
11	The System approval process is a reflection of the legal	1	2	3	4	5
	Requirements in the Local Government Finance and					
	Accounting Regulations					
12	There are reliable and strong control system in data processing	1	2	3	4	5
13	All responsible officers for financial management processing	1	2	3	4	5
	are provided for in the system design					
14	There is enough segregations of duties in the system	1	2	3	4	5
15	There is a reliable audit trail to be followed in financial data	1	2	3	4	5
	processing					
16	Staff responsible for the approval processing are well	1	2	3	4	5
	motivated to do their work					
L		1	1	1		

a) What are the system weaknesses in Transaction Processes?

- b) Suggest ways and aspects in which IFMIS processes should be improved.
- 3) Establishing the relationship between IFMIS Outputs and financial management in local government.

Scale: 1= Strongly Disagree; 2= Disagree; 3= Not Sure; 4= Agree; 5= Strongly Agree

1	The use of EFTs is better than the Cheque System	1	2	3	4	5
2	The system can produce exceptional reports	1	2	3	4	5
3	The system reports require a lot of manipulation in order to reflect the true position of the financial operation	1	2	3	4	5
4	The system can produce all the required vouchers(receipts, payment vouchers, LPOs, and GRNs) to facilitate hard copy data records	1	2	3	4	5
5	With IFMIS in financial management, there is better value for money in the LG operations	1	2	3	4	5

a) What challenges do you have with IFMIS reports?

.....

b) What can be done to improve IFMIS reports?

4) Establishing financial management in local government.

Scale: 1= Strongly Disagree; 2= Disagree; 3= Not Sure; 4= Agree; 5= Strongly Agree

					r
Data entry process is timely	1	2	3	4	5
There is enough support to Data entrants in order to perform their	1	2	3	4	5
duties					
The data entry process is complex to understand	1	2	3	4	5
The budgeting process is simple to understand	1	2	3	4	5
Receipts are generated on a timely basis	1	2	3	4	5
The System Goods Received Note(GRN) generation process is	1	2	3	4	5
user friendly and timely					
Bank reconciliation process is simple and user friendly	1	2	3	4	5
The payment process is simple to understand by Users	1	2	3	4	5
The payment process is done timely	1	2	3	4	5
The audit trail of financial data processing is simple to follow	1	2	3	4	5
Financial data processing is not user friendly	1	2	3	4	5
EFTs take a reasonable time to mature/clear	1	2	3	4	5
The system generates financial reports as per the legal requirements	1	2	3	4	5