

**IMPACT OF COMPUTERISED ACCOUNTING SYSTEM IN ENSURING
EFFECTIVE FINANCIAL CONTROL IN LOCAL GOVERNMENT
AUTHORITIES IN TANZANIA**

CASE STUDY MUSOMA DISTRICT COUNCIL

By

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DECLARATION

I **Nsia Munissi** declare that this work is my original and my own and has never been published or submitted in any other university for the award of any degree before.

Signed

Date

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DEDICATION

I dedicate this work to my lovely children, Jonathan and Hope. I love them so much.

Further I dedicate this work to my parents for their moral and financial support. I dedicate the work to my friend Amani Maila for his close support during the period of conducting the study. God bless you all for helping me.

ABBREVIATION

LAFM	Local Authority Financial Memorandum
LGAs	Local Government Authorities
IFMS	Integrated Financial Management System
CAIF	Computerised Accounting Information System
CAS	Computerised Accounting System
CS	Control System
CAG	Controller and Auditor General

ABSTRACT

The main purpose of this study was to explore the impact of computerized accounting system in financial control, a case study of Musoma Municipal Council. The focus was on the accounting/ finance department.

Primary data was used, including questionnaires and interviews. The targeted population included the accounting staffs, head of departments and staff of internal audit unit. The unity of inquiry specifically consisted of District Executive Director (DED), District Treasurer (DT), District Internal Auditor (DIA), District Planning Officer (DPLO), District Education Officer (DEO), District Medical Officer (DMO), District Human Resources Officer (DHRO) and accounts staff who used the system. The selection of the unit was based on the fact that the identified persons were the key players in performing and evaluating accounting system. The data obtained through interviews was held constant as control variables.

The data collected through questionnaire was processed, analysed and presented in the form of charts and tables using a computerized data processing program SPSS 20.

After a thorough data analysis conclusion was then drawn, that details that the computerized accounting system has an impact on financial control.

Recommendations were then made that there should be a system administrator so as to monitor and restricts the unauthorized personnel from accessing the system.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

1.1 Background of the problem

Initially, accounting information systems were predominantly developed “in-house” as legacy systems (Boockhol, 1999). Such solutions were difficult to develop and expensive to maintain. Today, accounting information systems are more commonly sold as prebuilt software packages from vendors such as Microsoft, Sage Group, SAP and Oracle where it is configured and customized to match the organization’s business processes. As the need for connectivity and consolidation between other business systems increased, accounting information systems were merged with larger, more centralized systems known as enterprise resource planning (ERP), (Marshall 2009).

Before the installation of computerised accounting systems, all processes of accounting which associates with the system today, such as receiving data, recording, processing and reporting was done manually with pen and paper. This system made the job too difficult as it bumps into by the following problem. It was easy for documents to get lost or being misplaced, sometimes would disappear completely. On the other hand it was easy to be destroyed or change necessary documents in different files, unnecessary debt to the government through fund mismanagement as a result of fraud. (Alshbiel 2011)

The Financial control in Local Government Authorities has become very interesting aspect to development partners and Government. The Government wishes to establish a link between financing of local government and their performance particular on the fund management and transparency of utilization of funds disbursed.

Every financial year since fiscal year ended 30th June 2009 to 2011 report of Controller and Auditor General of Local Government Authorities has been queried about such situation (weakness of accounting system). For example Para 2.2.3.1 of the CAG report

of the Musoma District Council's financial statement ended 30th June 2009 on assessment of internal control was observed that accounting system is operating both manually and computerised using Epicor package. This weakness continue to appear on the financial year ended 30th June 2010 under Para 2.2.4.1. But during the fiscal year ended 30th June 2011 accounting system was computerised although not operating fully since it does not print cheques. CAG report (2011).

From this aspect, there became a need for the government to introduce a computerised accounting system so as to monitor and ensuring transparency and efficiency use of public resources within their agencies. This computerised accounting system was under the application of the Integrated Financial Management System (IFMS) using the EPICOR accounting package. Despite the fact that the Government took different initiatives to introduce this computerised accounting system to its agencies (including local authorities), yet, most of the council noted that the system is not operating fully as were expected.

Therefore, it is against this background attempt a researcher to study impact of the computerised accounting system particular under EPICOR accounting package in ensuring effectiveness of financial control in LGAs.

1.2 Statement of the Problem

Most of the Local Government Authorities have been experiencing some problems in the accounting system because of not utilizing it fully through the application of the Integrated Financial Management System (IFMS) using the EPICOR accounting package. Their accounting system is operating both manually and computerised.

The introduction of computerised accounting system was intended among other things to improve the performance of the financial control to improve performance of the financial control system within the government institutions. Despite the introduction of the system I (in 2001) in LGAs, the system has been operating semi automatic and this

resulted in repeated audit queries by the CAG office. Thus this research intends to investigate the impact of computerised accounting system in ensuring effective financial control in LGAs, a case study of Musoma district council.

1.3 Objective of the study

1.3.1 General objectives

The main objective of this study was to evaluate the impact of the computerised accounting system in financial control in Local Authorities. The study specifically evaluated the application of the EPICOR accounting package in fund management.

1.3.2 Specific objectives

- 1) To assess the efficiency of epicor in ensuring proper financial control.
- 2) To evaluate the performance before and after the application of the computerised accounting system on reporting system.
- 3) To determine effectiveness of the Computerised Accounting System in ensuring proper funds management.

1.4 Research question

- 1) Can epicor system ensure proper financial control?
- 2) At what extent application of the IFMS Epicor system meet the requirement of reporting standards.
- 3) Is the Computerised Accounting System a better solution for funds mismanagement?

1.5 Significant of the study

The undertaking of this researcher will justify the following grounds: -

- a) To establish knowledge of the application of IFMS Epicor system to the Local Government Authorities.

- b) It will establish factors that hinder the application of computerised system in LGAs
- c) To establish and assist to the Management on how computerised accounting system may contribute to safeguard the public resources in LGAs.
- d) The findings of the study will enable to improve efficiency of the computerised accounting system in the Local Government Authorities.

1.6 Limitation of the study

The researcher encountered the problems of scarce resource of funds and limited time in the course of data collection.

1.7 Delimitations

The researcher utilized the available resources of time and funds by restricting the study to Musoma municipal council.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical literature review

Most of the government entities are processing their accounting information by using the computer. This is different from the previously known manual accounting systems. The availability of microcomputers which are less expensive to use these electronic devices for their accounting functions. This changes, forces the government to introduce accounting package of accounting system so as to evaluate performance in financial control.

2.1.1 Accounting system

Every company applies accounting because it is generally accepted that companies have to reveal financial and management information to the economic users and of course because account is an indispensable tool in business decision making process. Account is an important part of every company, thus businesses are required to keep proper books of section (section 123 of the companies code (1963), Act 179).

“Accounting can be divided into two basic categories: those which apply manual accounting and those which prefer computerised accounting system” (Weber, 2010)

Accounting information system

Modern systems theory emphasizes that in order to increase the effectiveness of the accounting system; it should be viewed as a system that consists of three stages namely; inputs that include accounting data through documents, electronic operation and Outputs which are the information and the accounting results arranged in lists and reports, Romney and Steinbart (1999). Al Melejjy (2003) as cited in Seif and Qasim (2011) showed that the concept of efficiency regarding any accounting system means to achieve

the optimal relationship between inputs and outputs of the data and accounting information, and this relationship will be achieved using the least possible amount of data (inputs) to produce as much information as possible (outputs). Thus, accounting is an information system using unit operations to generate the appropriate information. That information includes data collection (data recording), maintaining data storage and preparing of quantitative information as information generation.

On the other hand, Elena, Raquel and Clara (2011) define accounting information system as a tool which, when incorporated into the field of Information and Technology systems (IT), were designed to help in the management and control of topics related to firms' economic-financial area.

From the above concept, it is clear that accounting information system (AIS) is a structure that a business uses to collect, store, manage, process, retrieve and report its financial data so that it can be used by any interested parties for decision making through different main parts such as people, procedures and instructions, data, software, information technology infrastructure and internal controls.

2.1.2 Manual Accounting System and its shortcomings

A system is a set of interdependent elements that together accomplish specific objectives. Manual accounting system is an information system and Romney Steinibart (2009) defined an information system as an organized means of collecting, entering, processing data and storing, and managing controlling and reporting information so that an organization can achieve its objectives and goals. Tanis and Dalci (2002) emphasized that information system has following component goals, and objectives, inputs, output, data storage, instructions and procedures, users, control and measure. Accounting system as an “information system is a man-made system that generally consists of an integrated set of computer based and manual components established to collect, store, and manage data and to provide output information to user” (Gelinas et al, 2005).

Manual accounting implies that employees perform the whole accounting cycle manually on periodic bases. They draft trial balance, journalise transactions and prepare financial statements. Extensively, Waterfield and Ransing (1998) highlighted that accounting cycle can be simple manual one based on the general journal (where transactions are recorded chronological as debits and credits), general ledger (where the activities from the general journal is summarized by account number), and other journal required to manage the business such as purchases, payments, sales, receivables and payroll journal. Because of expenses of maintaining multiple manual journals, institutions typically do not prepare all of these other journals.

2.1.3 Concept of Computerised Accounting System

Computerised accounting system is an accounting information system that processes the financial transactions and events as per Generally Accepted Accounting Principles (GAAP) to produce reports as per user requirements. In a computerised accounting system, the framework of storage and processing of data is called operating environment that consists of hardware as well as software in which the accounting system, works. Every accounting system, manual or computerised, has two aspects. First, it has to work under a set of well-defined concepts called accounting principles. Another, that there is a user-defined framework for maintenance of records and generation of reports. In a computerised accounting system, the framework of storage and processing of data is called operating environment that consists of hardware as well as software in which the accounting system, works. The type of the accounting system used determines the operating environment. Both hardware and software are interdependent. The type of software determines the structure of the hardware. Further, the selection of hardware is dependent upon various factors such as the number of users, level of secrecy and the nature of various activities of functional departments in an organization

In addition the computerised accounting system (CAIS) encountered serious security threats that may arise from the weakness of their control system (CS) or from the nature of the competitive Environment (information Age) as the need for information is greater. At the same time, the every survival of organization depends on correct management, security and confidentiality of their information, Eduardo and Marino (2005). Where the information arises consequently security threats related to CAIS require a great attention from auditors and accountants in order to be recognized and minimized by evaluating organization control system (Greenstein and Vasarhelyi ,2000)

Modern computerised accounting systems are based on the concept of database. A database is implemented using a database management system, which is define by a set of computer programmes (or software) that manage and organise data effectively and provide access to the stored data by the application programmes. The accounting database is well-organised with active interface that uses accounting application programs and reporting system.

Every computerised accounting system has two basic requirements;

- a) Accounting Framework: It consists of a set of principles, coding and grouping structure of accounting.
- b) Operating Procedure: It is a well-defined operating procedure blended suitably with the operating environment of the organisation.

The use of computers in any database oriented application has four basic requirements as mentioned below;

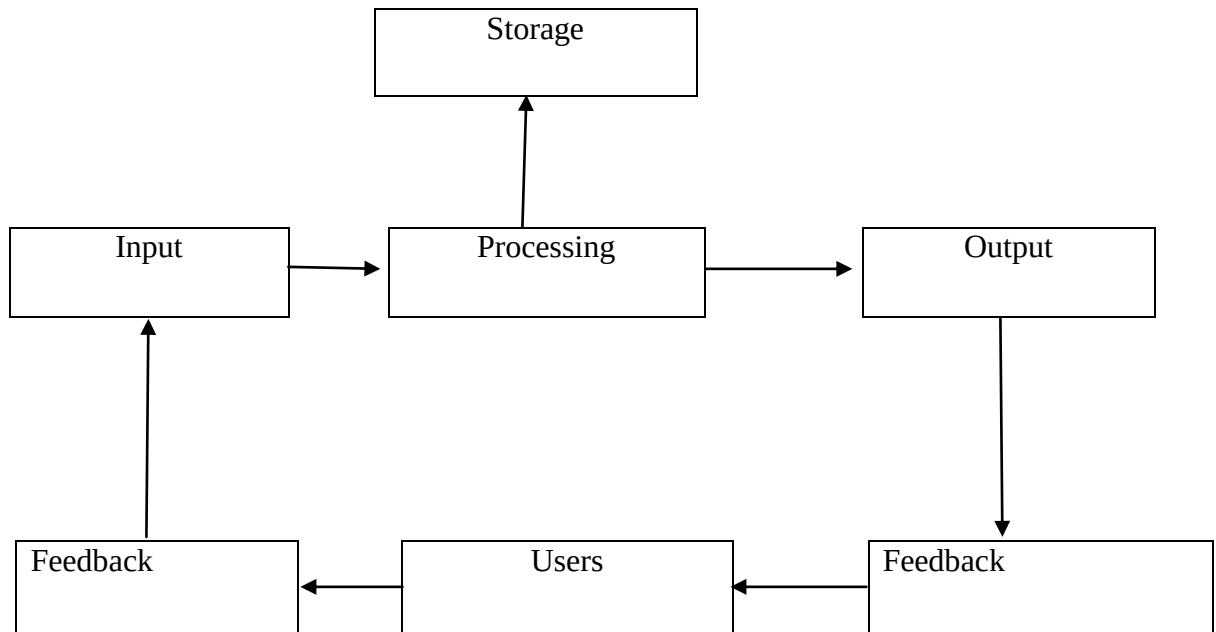
- **Front-end Interface:** It is an interactive link or a dialog between the user and database-oriented software through which the user communicates to the back-end database. For example, a transaction relating to purchase of goods may be dealt with the accounting system through a purchase voucher, which appears on the computer's monitor of data entry operator and when entered into the system is

stored in the database. The same data may be queried through reporting system say purchase analysis software program.

- **Back-end Database:** It is the data storage system that is hidden from the user and responds to the requirement of the user to the extent the user is authorised to access.
- **Data Processing:** It is a sequence of actions that are taken to transform the data into decision useful information.
- **Reporting System:** It is an integrated set of objects that constitute the report.

The computerised accounting is also one of the database-oriented applications wherein the transaction data is stored in well-organised database. The user operates on such database using the required and desired interface and also takes the desired reports by suitable transformations of stored data into information. Therefore, the fundamentals of computerised accounting embrace all the basic requirements of any database-oriented application in computers. Accordingly, the computerised accounting system has the above four additional requirements.

Figure 2.1 Computerised accounting system model



(Gelinas et al, 2005)

Components of computerised accounting system

A good computerized accounting system or CAS will have a clean, easy-to-use interface. From this interface, you should be able to enter data, export data into other formats, and perform data validation operations. On the back end, databases will drive your CAS, responding to queries about the information stored therein. Your consultant should be able to install the CAS. While you don't need a large IT staff t

o install your computerized accounting system and get started, it helps if you need to troubleshoot operations or need help performing a specific function. Your CAS should have elements including:

- a) Accounts Payable: Allows you to manage invoices and bills that you must pay.
- b) Accounts Receivable: Allows you to manage payments, billing, and income.
- c) Payroll: Handles employee payroll within the accounting system.
- d) Benefits Management: Allows for employee budget management, accrued vacation time reporting, and other budget reporting.
- e) Budgeting: Lets you create and manage a budget.
- f) Assets: Lets you manage fixed and fluid assets, calculate depreciation, and perform other asset management.
- g) Reporting: Integrates your data with existing reporting standards, so that you can comply with regulations that affect your business.
- h) Project Reporting: Lets you manage the assets and workflow for multiple projects at one time.
- i) Supply Chain Management: Allows you to track inventory, suppliers, goods pricing, and other supply side services.

2.1.4 Sourcing of Accounting Software

Accounting software is an integral part of the computerised accounting system. An important factor to be considered before acquiring accounting software is the accounting expertise of people responsible in organisation for accounting work. People, not computers, are responsible for accounting. The need for accounting software arises in two situations:

- a) When the computerised accounting system is implemented to replace the manual system.
- b) When the current computerised system needs to be replaced with a new one in view of changing needs.

2.1.5 Accounting Packages

Every Computerised Accounting System is implemented to perform the accounting activity (recording and storing of accounting data) and generate reports as per the requirements of the user. From this perspective, the accounting packages are classified into the following categories:

- a) Ready to use
- b) Customised
- c) Tailored

Each of these categories offers distinctive features. However, the choice of the accounting software would depend upon the suitability to the organisation especially in terms of accounting needs.

Ready-to-Use

Ready-to-Use accounting software is suited to organisations running small/ conventional business where the frequency or volume of accounting transactions is very low. This is because the cost of installation is generally low and number of users is limited. Ready-to-use software is relatively easier to learn and people (accountant) adaptability is very high. This also implies that level of secrecy is relatively low and the software is prone to data frauds. The training needs are simple and sometimes the vendor (supplier of software) offers the training on the software free. However, this software offers little scope of linking to other information systems.

Customised

Accounting software may be customised to meet the special requirement of the user. Standardised accounting software available in the market may not suit or fulfil the user requirements. For example, standardised accounting software may contain the sales voucher and inventory status as separate options. However, when the user requires that

inventory status to be updated immediately upon entry of sales voucher and report be printed, the software needs to be customised.

Customised software is suited for large and medium businesses and can be linked to the other information systems. The cost of installation and maintenance is relatively high because the high cost is to be paid to the vendor for customisation. The customisation includes modification and addition to the software contents, provision for the specified number of users and their authentication, etc. Secrecy of data and software can be better maintained in customised software. Since the need to train the software users is important, the training costs are therefore high.

Tailored

The accounting software is generally tailored in large business organisations with multi users and geographically scattered locations. This software requires specialised training to the users. The tailored software is designed to meet the specific requirements of the users and form an important part of the organizational MIS. The secrecy and authenticity checks are robust in such softwares and they offer high flexibility in terms of number of users.

Generic Considerations before Sourcing Accounting Software

The following factors are usually taken in considerations before sourcing accounting software.

Flexibility

An important consideration before sourcing accounting software is flexibility, viz. data entry and the availability and design of various reports expected from it. Also, it should offer some flexibility between the users of the software, the switch over between the

accountants (users), operating systems and the hardware. The user should be able to run the software on variety of platforms and machines, e.g. Windows 98/2000, Linux, etc.

Cost of Installation and Maintenance

The choice of the software obviously requires consideration of organisation ability to afford the hardware and software. A simple guideline to take such a decision is the cost benefit analysis of the available options and the financing opportunities available to the firm. Sometimes, certain software which appears cheap to buy, involve heavy maintenance and alteration costs, e.g. cost of addition of modules, training of staff, updating of versions, data failure/restoring costs. Conversely, the accounting software which appear initially expensive to buyers, may require least maintenance and free upgrading and negligible alteration costs.

Size of Organisation

The size of organisation and the volume of business transactions do affect the software choices. Small organisations, e.g. in non-profit organisations, where the number of accounting transactions is not so large, may opt for a simple, single user operated software. While, a large organisation may require sophisticated software to meet the multi-user requirements, geographically scattered and connected through complex networks.

Ease of Adaptation and Training needs

Some accounting software is user friendly requiring a simple training to the users. However, some other complex software packages linked to other information systems require intensive training on a continuous basis. The software must be capable of attracting users and, if it requires simple training, should be able to motivate its potential users.

Utilities/MIS Reports

The MIS reports and the degree to which they are used in the organisation also determine the acquisition of software. For example, software that requires simply producing the final accounts or cash flow/ratio analysis may be ready to- use software. However, the software, which is expected to produce cost records, needs to be customised as per user requirements.

Expected Level of Secrecy (Software and Data)

Another consideration before buying accounting software is the security features, which prevent unauthorised personnel from accessing and/or manipulating data in the accounting system. In tailored software for large businesses, the user rights may be restricted to purchase vouchers for the purchase department, sales vouchers to the billing accountants and petty cash module access with the cashier. The operating system also matters. Unix environment allows multi-users compared to Windows. Inunix, the user cannot make the computer system functional unless the user clicks with a password, which is not a restriction in Windows.

Exporting/Importing Data Facility

The transfer of database to other systems or software is sometimes expected from the accounting software. Organisations may need to transfer information directly from the

ledger into spreadsheet software such as Lotus or Excel for more flexible reporting. The software should allow the hygienic, untouched data transfer.

Accounting software may be required to be linked to MIS software in the organisation. In some ready to use accounting softwares, the exporting, importing facility is available but is limited to MS Office modules only, e.g. MS Word, MS Excel, etc. However, tailored softwares are designed in manner that they can interact and share information with the various sub components of the organisational MIS.

Vendors Reputation and Capability

Another important consideration is the reputation and capability of about the vendor. This depends upon how long he has been the vendor is in business of software development, whether there are other users of the software and extent of the availability of support mechanisms outside the premises of the vendor.

Comparison between manual and computerised accounting system

Accounting, by definition, is the process of identifying, recording, classifying and summarising financial transactions to produce the financial reports for their ultimate analysis. Let us understand these activities in the context of manual and computerised accounting system.

- **Identifying:** The identification of transactions, based on application of accounting principles is, common to both manual and computerised accounting system.
- **Recording:** The recording of financial transactions, in manual accounting system is through books of original entries while the data content of such transactions is stored in a well-designed accounting database in computerised accounting system.

- **Classification:** In a manual accounting system, transactions recorded in the books of original entry are further classified by posting into ledger accounts. This results in transaction data duplication. In computerised accounting, no such data duplication is made to cause classification of transactions. In order to produce ledger accounts, the stored transaction data is processed to appear as classified so that the same is presented in the form of a report. Different forms of the same transaction data are made available for being presented in various reports.
- **Summarizing:** The transactions are summarised to produce trial balance in manual accounting system by ascertaining the balances of various accounts. As a result, preparation of ledger accounts becomes a prerequisite for preparing the trial balance. However, in computerised accounting, the originally stored transactions data are processed to churn out the list of balances of various accounts to be finally shown in the trial balance report. The generation of ledger accounts is not a necessary condition for producing trial balance in a computerised accounting system.
- **Adjusting Entries:** In a manual accounting system, these entries are made to adhere to the principle of cost matching revenue. These entries are recorded to match the expenses of the accounting period with the revenues generated by them. Some other adjusting entries may be made as part of errors and rectification. However, in computerised accounting, Journal vouchers are prepared and stored to follow the principle of cost matching revenue, but there is nothing like passing adjusting entries for errors and rectification, except for rectifying an error of principle by having recorded a wrong voucher such as using payment voucher for a receipt transaction.
- **Financial Statements:** In a manual system of accounting, the preparation of financial statements pre-supposes the availability of trial balance. However, in computerised accounting, there is no such requirement. The generation of financial statements is independent of producing the trial balance because such

statements can be prepared by direct processing of originally stored transaction data.

- **Closing the Books:** After the preparation of financial reports, the accountants make preparations for the next accounting period. This is achieved by posting of closing and reversing journal entries. In computerised accounting, there is year-end processing to create and store opening balances of accounts in database. It may be observed that conceptually, the accounting process is identical regardless of the technology used.

2.1.6 Advantages of Computerised Accounting System

Computerised accounting offers several advantages vis-a-vis manual accounting, these are summarised as follows;

- a) **Speed:** Accounting data is processed faster by using a computerised accounting system than it is achieved through manual efforts. This is because computers require far less time than human beings in performing a task.
- b) **Accuracy:** The possibility of error is eliminated in a computerised system because the primary accounting data is entered once for all the subsequent usage and processes in preparing the accounting reports. Normally, accounting errors in a manual accounting system occur because of repeated posting of same set of original data by several times while preparing different types of accounting reports.
- c) **Reliability:** The computer system is well-adapted to performing repetitive operations. They are immune to tiredness, boredom or fatigue. As a result, computers are highly reliable compared to human beings. Since computerised accounting system relies heavily on computers, they are relatively more reliable than manual accounting systems.
- d) **Up-to-Date Information:** The accounting records, in a computerised accounting system are updated automatically as and when accounting data is

entered and stored. Therefore, latest information pertaining to accounts get reflected when accounting reports are produced and printed.

For example, when accounting data pertaining to a transaction regarding cash purchase of goods is entered and stored, the cash account, purchase account and also the final accounts (trading and profit and loss account) reflect the impact immediately.

- **Real Time User Interface:** Most of the automated accounting systems are inter-linked through a network of computers. This facilitates the availability of information to various users at the same time on a real time basis (that is spontaneously).
- **Automated Document Production:** Most of the computerised accounting systems have standardised, user defined format of accounting reports that are generated automatically. The accounting reports such as Cash book, Trial balance, Statement of accounts are obtained just by click of a mouse in a computerised accounting environment.
- **Scalability:** In a computerised accounting system, the requirement of additional manpower is confined to data entry operators for storing additional vouchers. The additional cost of processing additional transactions is almost negligible. As a result the computerised accounting systems are highly scalable.
- **Legibility:** The data displayed on computer monitor is legible. This is because the characters (alphabets, numerals, etc.) are type written using standard fonts. This helps in avoiding errors caused by untidy written figures in a manual accounting system.
- **Efficiency:** The computer based accounting systems ensure better use of resources and time. This brings about efficiency in generating decisions, useful information and reports.

- **Quality Reports:** The inbuilt checks and untouchable features of data handling facilitate hygienic and true accounting reports that are highly objective and can be relied upon.
- **MIS Reports:** The computerised accounting system facilitates the real time production of management information reports, which will help management to monitor and control the business effectively. Debtors' analysis would indicate the possibilities of defaults (or bad debts) and also concentration of debt and its impact on the balance sheet. For example, if the company has a policy of restricting the credit sales by a fixed amount to a given party, the information is available on the computer system immediately when every voucher is entered through the data entry form.

However, it takes time when it comes to a manual accounting system. Besides, the results may not be accurate.

- **Storage and Retrieval:** The computerised accounting system allows the users to store data in a manner that does not require a large amount of physical space. This is because the accounting data is stored in hard-disks, CD-ROMs, floppies that occupy a fraction of physical space compared to books of accounts in the form of ledger, journal and other accounting registers. Besides, the system permits fast and accurate retrieval of data and information.
- **Motivation and Employees Interest:** The computer system requires a specialised training of staff, which makes them feel more valued. This motivates them to develop interest in the job. However, it may also cause resistance when we switch over from a manual system to a computer system.

2.1.7 Limitations of Computerised Accounting System

The main limitations emerge out of the environment in which the computerised accounting system is made to operate. These limitations are as given below;

- **Cost of Training:** The sophisticated computerised accounting packages generally require specialised staff personnel. As a result, huge training costs are incurred to understand the use of hardware and software on a continuous basis because newer types of hardware and software are acquired to ensure efficient and effective use of computerised accounting systems.
- **Staff Opposition:** Whenever the accounting system is computerised, there is a significant degree of resistance from the existing accounting staff, partly because of the fear that they shall be made redundant and largely because of the perception that they shall be less important to the organisation.
- **Disruption:** The accounting processes suffer a significant loss of work time when an organisation switches over to the computerised accounting system. This is due to changes in the working environment that requires accounting staff to adapt to new systems and procedures.
- **System Failure:** The danger of the system crashing due to hardware failures and the subsequent loss of work is a serious limitation of computerised accounting system. However, providing for back-up arrangements can obviate this limitation. Software damage and failure may occur due to attacks by viruses. This is of particular relevance to accounting systems that extensively use Internet facility for their online operations. No full proof solutions are available as of now to tackle the menace of attacks on software by viruses.
- **Inability to Check Unanticipated Errors:** Since the computers lack capability to judge, they cannot detect unanticipated errors as human beings commit. This is because the software to detect and check errors is a set of programmes for known and anticipated errors.
- **Breaches of Security:** Computer related crimes are difficult to detect as any alteration of data may go unnoticed. The alteration of records in a manual accounting system is easily detected by first sight. Fraud and embezzlement are usually committed on a computerised accounting system by alteration of data or programmes. Hacking of passwords or user rights may change the accounting

records. This is achieved by tapping telecommunications lines, wire-tapping or decoding of programmes. Also, the people responsible for tampering of data cannot be located which in a manual system is relatively easier to detect, Ahmad (2004).

- Ill-effects on Health: The extensive use of computers systems may lead to development of various health problems: bad backs, eyestrain, muscular pains, etc. This affects adversely the working efficiency of accounting staff on one hand and increased medical expenditure on such staff on the other.

2.1.8 Concept of Integrated Financial Management System

Integrated Financial Management system (IFMIS) has become a core component of financial reforms to promote financial reforms to promote efficiency, security of data management and comprehensive financial reporting, Boockhol (1999). IFMIS provide an integrated computerised financial package to enhance the effectiveness and transparency of public resource management by computerising the budget management and accounting system for a government.

The integration of IFMIS across the board ensures that all users adhere to common standards, rules and procedures, with the view to reducing risks of mismanagement of public resources.

2.1.9 Concept of financial control

According to Buhari as cited in Badara (2012), define financial control defined financial control as “the process of ensuring that cash and other financial resources of government are in accordance with the legislation, regulation and accounting manual which constitute legal and administrative framework of a particular entity”.

On the other hand, he cited a work of Anfayo (1994) that financial control is “a process of assuring that cash is used properly and for authorised programmes, i.e. involves observation and measurement by comparing actual performance against the planned and

correcting variances. Adam (2004) and Mainoma (2007) defined financial control as “the steps taken to ensure maximum safe custody of financial resources in order to avoid waste, misuse, embezzlement, misappropriation or illegal disposal of public finance.

Therefore, the above definitions, financial control is all about proper utilization of the financial resources. Proper utilization of financial resources is based on the different law and regulation as well as organisation policies in order to avoid misuse and misappropriation of resources.

Types of financial controls

To manage the risk of a financial transaction processing failure, manual and/or automated control procedures are implemented at key stages of the process, Hardy and Robert (2000).

Control procedure type

1. Transaction initiation review and approval, examples:
 - Review and approval of expense reimbursement request
 - Review and approval of a Cruz Buy requisition
 - Review and approval of a transfer of expenditure
 - Review and acceptance of a sponsored award contract
 - Review and approval of a recharge
 - Review and approval of Financial Information System, Payroll Personnel, Cruz Buy system user access forms
2. Asset receipt verification, example; Review and approval of a receiving report.
3. Post-transaction review, examples;
 - Review and certification of transactions appearing in the general ledger
 - Review and certification of monthly Purchasing Card transaction reports
 - Review and certification of Distribution of Payroll Expense reports

- Review and certification of Financial Information System or Data Warehouse transaction edit (suspicious transactions) or exception (error) reports
4. Balance reconciliation, examples;
 - Monthly reconciliation and certification of summarized accounts receivable ledger balance to detailed debtor accounts balances listing
 - Monthly or quarterly petty cash account reconciliation and certification
 5. Balance analysis, examples;
 - Review and approval of entertainment expenses for unusual fluctuations in the balance over the course of a year
 - Analysis and certification of material budget to actual expense differences
 6. System access functions, example; Financial Information System password access requirement
 7. Data input, example; Date or telephone number format checking
 8. Data validation, example; Organization, fund, and/or account code validation
 9. Data processing, example; Automatic summarization and posting of invoice payment data to the general ledger
 10. Developing security plans.
 11. Segregation of duties within the system function.
 12. Project development controls.
 13. Physical access controls.
 14. Logical access controls.
 15. Data storage controls.
 16. Data transmission controls.
 17. Documentation standards
 18. Minimizing system downtime.
 19. Disaster recovery plans.
 20. Protection of personal computer and client/server networks.

21. Internal controls.

They provided an empirical justification for each control and specified the threats that control procedure could prevent, which gives creditability and greater chances to find these controls in practice. Furthermore, Boockholdt ,(1999),mentioned four categories of general controls as follows:

- Data center operation controls. This includes Data Backup Procedures, Contingency Plans (DRP) and Segregation of Duties.
- System software acquisition and maintenance controls.
- Access security controls.
- Application system development and maintenance controls. These controls are; formal review and authorization of each new system, Adequate documentation for manual and programmed procedures, A plan for testing each new system adequately and authorization and documentation for change to existing systems

Boockholdt (1999) classified the system software acquisition and maintenance controls into two main sections:

- a) Network administration. Selecting and updating network communication software.
- b) PC help center. Answering user's questions on personal computers, scheduling maintenance.
- c) Database Administration. Selecting and updating software, limiting access to data, maintaining efficiency.
- d) Web administrator. Determining content of website, implementing security in electronic commerce.

Dougan ,(1994) suggested an internal control checklist for computer systems.

This checklist could be used to check security controls in place; and to ensure the implemented security procedures are sufficient and effective to prevent computer data losses. Dougan grouped his checklist into four main categories:

- Computer room site (physical access)

- Documentation.
- Maintenance.
- Protection.

Henry ,(1997) carried out a survey on 261 companies in the US, to determine the nature of their accounting systems and security in use. Seven basic security methods were presented in his study. These methods were encryption, password access, backup of the data, viruses' protection, and authorization for system changes, physical system security and periodic audit. Henry's study results indicated that 80.3% of the companies backup their accounting systems, 74.4% of the companies secure their accounting systems with passwords, where only 42.7% use antivirus in their systems. The results also revealed that less than 6% of the companies use data encryption, lastly, 45% of companies underwent some sort of periodic audit for their accounting information systems.

Another study, carried out by Qurashi & Siegel ,(1997), assured the accountant's responsibility to check the security of the computer system. The researchers carried out a theoretical study to develop a security checklist. This list covers the following four security controls groups, which are Client policy, Software security, Hardware security and Data security.

Cerullo and Michael ,(1999) conducted a survey using a questionnaire of twenty potential security and control mechanisms, which was circulated among audit directors of two hundred fortune companies in the US. These mechanisms were placed by Cerullo study in four categories, namely Client-based, Network-based, Server-based and Application-based.

The results indicate that there is a lack of consensus between IS managers and CIS auditors in encryption techniques and operational security controls, and this is require further investigation, for example in areas where IS managers perceive controls to be less important than do CIS auditors, there may be a weakness in control because the IS manager did not consider it worthwhile or cost-effective enough to implement what the CIS auditor considers to be sufficient control.

There verse may also be true, i.e., those unnecessary controls have been implemented. If so, discontinuing the operation of the unnecessary controls may result in cost savings. Moscovice and Stephan (2001) consider that e-business organizations should maintain a group of control procedures to protect their systems from any possible threats, such procedures includes:

1. Physical access control procedures.
2. Password control procedures.
3. Data encryption such as public key encryption.
4. Disaster recovery plan (DRP).
5. Software-based security control, such as firewalls.
6. Intrusion detection software to detect unauthorized entrance into the system.

Abu Musa ,(2004) performed an empirical study to investigate the adequacy of Security Controls implemented in the Egyptian banking industry (EBI), where the respondents were restricted to the head of the computer department and the head of internal audit department. Abu Musa tried to check whether the applied Security Controls in the EBI are adequate to protect against the perceived security threats through self-administrated checklist.

2.2 Empirical literature review

Kinsun, (2002) considered that the rapid adoption of information technology by business has not changed the basic need for internal control but it has extended the role of IT-based internal controls. In other words, Kinsun believed that the development in internal controls should be in control procedures without changing the internal control framework.

Lainhart and John, (2000) concluded that adequate security and controls exist in a computerised accounting system. That is to say, there is the impact of computerised accounting system in financial control.

Hayale and Khadra (2006) on their study, “evaluation of the effectiveness of control systems in computerised accounting information system on Jordanian banking sector”, concluded that Jordanian domestic banks use fraud and error reduction controls through computerised accounting information system to enhance the effectiveness of financial control.

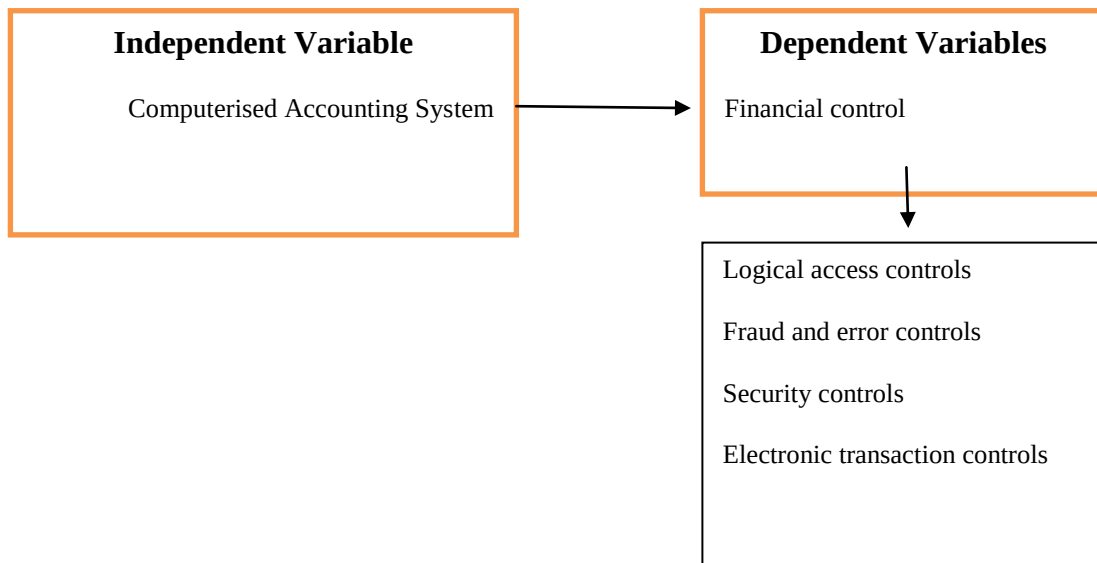
2.3 Conceptual Framework and Research Model

The conceptual model is a diagram of a set of relationship between certain factors that are believed to impact or lead to a target condition. Those factors for the case are common known as variables which will include independent and dependent.

The independent variable of the study is Computerised accounting system. On the other hand financial control is the dependent variable.

The conceptual framework help to guide the study as it was interpreted with research objectives of the study as presented into Figure 2.2 below.

Figure 2.2 Conceptual model



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research approach and design

Research design is a plan or strategy used to get the expected study results (Kothari 2004). This study will use case study design since because it allows the use of different data collection methods. Also case study design is time serving and cost effective.

3.2 Study area

The study was conducted at Musoma District Council. The selection of this area was due to the fact that it is among of those LGAs in Tanzania facing weakness in accounting system as stipulated by the Controller and Auditor General.

3.3 Study population

The research population covered only the targeted respondents were expected to exist in Musoma Municipal council. The targeted respondents represent the parties that had the ability and knowledge to address it; therefore, the questionnaire was distributed to the head of departments and staff of internal audit unit. The unity of inquiry specifically consisted of District Executive Director (DED), District Treasurer (DT), District Internal Auditor (DIA), District Planning Officer (DPLO), District Education Officer (DEO), District Medical Officer (DMO), District Human Resources Officer (DHRO) and accounts staff who were directly connected to the application of the system. The selection of the unit was based on the fact that the identified persons were the key players in performing and evaluating accounting system.

3.4 Sample size

This study involved a population of 20 who were the key players of the application of the computerised accounting system. Of which involved a sample size of 17 people as obtained as follows:

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where:

- n = Sample size
- N = Population (20)
- C = Coefficient of variation (10%)
- e = Sampling error (1%)

Hence

$$n = \frac{(20)(10\%)^2}{(10\%)^2 + (20-1)(1\%)^2}$$

$$n = 17$$

3.5 Sampling techniques

Sampling is a process or technique of selecting a suitable sample of population for the purpose of determining parameters or characteristics of the whole population. Based on the nature of this study the sampling technique was purposive sampling techniques. This technique was chosen because it allows the researcher to deal with respondents who have desirable knowledge and experience of the application of the computer accounting system. However simple random sampling technique was considered on the Head of department.

The purposive technique was used to the District Executive Director (DED), District Treasurer (DT), Internal Auditors, and Accounts staff while simple random sampling techniques involved District Planning Officer (DPLO), District Human Resource Officer (DHRO), Primary District Education Officer (DEOP), Secondary District Education Officer (DEOS) and District Medical Officer (DMO).

District Executive Director considered due to fact that is the accounting officer of the Council on the approval of the expenditures incurred within the Council. DT and other accounting staff are selected because they are key players on the accounting system especially on the ensuring the council interests on financial issues were maintained. Internal auditors also selected as purposive sampling because were the one who should investigate and ensure the effectiveness of the internal control system which include accounting system. Other head of departments were represented by DPLO, DHRO, DMO, DEOS and DEOP as simple random selection.

Table 3.1 Population of the selected sample

Unity of inquiry	Type of sampling	Population	Sample size
DED	Purposive	1	1
District Treasurer	Purposive	1	1
Internal Auditors	Purposive	2	2
Accountant	Purposive	8	8
Head of Department	Simple random	8	5
Total		=20	=17

Source: Researcher's selection (2012)

3.6 Types and data collection methods

3.6.1 Primary Data

Under this type of data collection a researcher involved the structured interview which used to discuss with the respondent through questionnaire tool. The questionnaire contained with open and closed questions. Also the researcher employed semi structured interview to other than user of the system.

This method include a face to face interaction with respondent so as get more information and avoid bias during investigation. The researcher collected more information personally from the sources and also use technique interview according to situation available.

This type of data was usefully because it was free from bias due to the fact that the respondent was answering questions with their own words by hiding their names and further clarification involved through interview.

3.6.2 Secondary Data

This type of data collection method included documents, particularly the auditors' reports as well as the controller and auditor general's reports for different financial years.

The usefully of this approach enabled the researcher to obtain the past information and how it is recently so as to have supportive information about the study.

3.7 Data analysis

Data analysis is the process detailed and summarizing data which was collected from different sources. After the data being obtained from those intended sources was analyzed and put into writing.

Data was analysed using a computerised data processing and analysis program named SPSS 20, as well as descriptive statistics such as frequency distribution tables, charts and graphs.

CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study. It entails the demographic profile of respondents, years of experience at work. The findings are presented in descriptive statistics tables and graphs that express the respondents' views as to the impact of computerised accounting system, epicor system in particular on the effectiveness of financial control.

Table 4.1 Frequency distribution on the applicability of epicor system in financial control as before and after introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	12	70.6	70.6	70.6
NO	5	29.4	29.4	100.0
Total	17	100.0	100.0	

Table 4.1 illustrates the respondents' view on the applicability of computerised accounting system (epicor system in particular) in financial control. It shows that 70.6% of the respondents declared that epicor system is applicable in financial control as before its introduction there had been problems with financial control, that is to say it has an effect on financial control. On the other hand 29.4% of the respondents declared that epicor system is not applicable on financial control, as after its introduction there are still problems in financial control.

Table 4.2 Frequency distribution on the organization performance before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	11	64.7	64.7	64.7
NO	6	35.3	35.3	100.0
Total	17	100.0	100.0	

Table 4.2 represents the frequency distribution on the organisation's performance in a computerised accounting system before and after the introduction of epicor system. 64.7% of the respondents declared that the organization, particularly Musoma town council performs better under computerised accounting system than it used to be under manual accounting system. On the other hand, 35% of the respondents had different views as they rejected such fact.

Table 4.3 Frequency distribution on the competence of staff to utilise CAS to ensure financial control before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	5	29.4	29.4	29.4
NO	12	70.6	70.6	100.0
Total	17	100.0	100.0	

Table 4.3 indicates the frequency distribution on the competence of staff to utilise CAS to ensure effective financial control before and after the introduction of epicor system . Only 29.4% of the respondents declare that the council has enough competent staff to utilise the computerised accounting system (epicor system) to enhance effective financial control. On the other hand about 70.6% of the respondents declare that the council has no enough competent staff to utilise computerised accounting system in ensuring financial control.

Table 4.4 Frequency distribution on the solution of epicor system for funds mismanagement before and after the introduction of epicor system.

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	8	47.1	47.1	47.1
NO	9	52.9	52.9	100.0
Total	17	100.0	100.0	

Table 4.4 indicates the frequency distribution of respondents' experience on the solution for funds mismanagement before and after the introduction of epicor system. Epicor system is a better solution for funds mismanagement than the former manual system by 47.1% of the respondents . On the other hand about 52.9% of the respondents claimed that the computerised accounting system is not a better solution for funds mismanagement.

Table 4.5 Frequency distribution on CAS ability to administer transactions before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	11	64.7	64.7	64.7
NO	6	35.3	35.3	100.0
Total	17	100.0	100.0	

Table 4.5 shows the frequency distribution on ability of CAS to administer transactions before and after the introduction of epicor system. The manual accounting system which was used was not able to administer transactions, however after the introduction of CAS the transactions are well administered. 64.7% of the respondents revealed that the computerised accounting system has the ability to administer transactions. On the other hand, about 35.3% of the respondents revealed that the computerised accounting system cannot administer transactions effectively.

To investigate the existence and the implementation of adequate logical access controls in Musoma Municipal Council, the respondents were asked to indicate whether the control procedure existed or not. The statistical findings revealed that all respondents claimed that their Municipal successfully implemented passwords and IDs on users' computers. On the other hands others respondents reported that each computer was provided with a screen saver locked with a password. lastly others respondents claimed that the authorities to access company information were defined according to the user's ID.

Table 4.6 Frequency distribution on the existence of logical controls before and after introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	15	88.2	88.2	88.2
NO	2	11.8	11.8	100.0
Total	17	100.0	100.0	

Table 4.6 represents frequency distribution on the existence of logical controls before and after introduction of epicor system. There exist logical controls with the epicor system since 88.2% of the respondents claimed that there exist logical controls on the computerised accounting system. On the other hand, only 11.8% of the respondents claimed that such logical controls do not merely exist.

Table 4.7 Frequency distribution on electronic transactions control before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	5	29.4	29.4	29.4
NO	12	70.6	70.6	100.0
Total	17	100.0	100.0	

Table 4.7 indicates the frequency distribution on electronic transactions control before and after the introduction of epicor system. Only 29.4% of the respondents claimed that there existed electronic transactions controls in the light of computerised accounting system. On the other hand about 70.6% of the respondents declared that there never exists such electronic transaction controls

Fraud and error controls

To explore the existence and the implementation of fraud and error reduction control procedures, the respondents were asked to indicate the existence of such measures at Musoma Municipal Council. The statistical findings revealed that all respondents (100%) indicated that their Musoma Municipal implemented successfully the segregation of duties, whether this segregation was between information system, development functions (analysis / programming... etc) or between accounting duties (authorization / recording ...etc).

On the other hand, the results showed that the respondents believed that the Municipal implemented rotation of duties in order to decrease fraud chances and increase the chance of error exposure.

Table 4.8 Frequency distribution on fraud and error reduction controls before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	9	52.9	52.9	52.9
NO	8	47.1	47.1	100.0
Total	17	100.0	100.0	

Table 4.8 represents frequency distribution of respondents on fraud and error reduction controls before and after the introduction of epicor system. It shows that 52.9% of the respondents did agree with the fact that there exist fraud and error reduction controls with the computerised accounting system. On the other hand about 47.1% disagreed from the fact that there exist fraud and error reduction controls.

Table 4.9 Frequency distribution on whether epicor system meets the financial reporting standards before and after the introduction of epicor system.

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	5	29.4	29.4	29.4
NO	12	70.6	70.6	100.0
Total	17	100.0	100.0	

Table 4.9 represents frequency distribution on whether epicor system meets the financial reporting standards after introduction of epicor system. Only 29.4 % of the respondents declared that epicor system meets the financial reporting standard. The remaining 70.6% of the respondents disagreed with the fact that the epicor system meets the financial reporting standards.

Output security controls

All respondents believed that the Municipal has control over access to sensitive information and restricted it only to the authorized users in the authorized time, the system output was stamped with the date and time. Of the respondents reported that their and municipal performed printing and distributing data and information under proper supervision and only by authorized persons. Lower percent of the respondents reported that sensitive computer output in the municipal was secured in a lock cabinet

Table 4.10 Frequency distribution on output security controls before and after the introduction of epicor system

Response	Frequency	Percent	Valid Percent	Cumulative Percent
YES	16	94.1	94.1	94.1
NO	1	5.9	5.9	100.0
Total	17	100.0	100.0	

Table 4.10 represents frequency distribution on output security controls before and after the introduction of epicor system. Of the respondents, 94.1% revealed that the computerised accounting system is equipped with output security controls. On the other hand 5.9% of the respondents claimed that the computerised accounting system is not equipped with such output security controls.

Figure 4.1 Staff response on fraud and error reduction controls

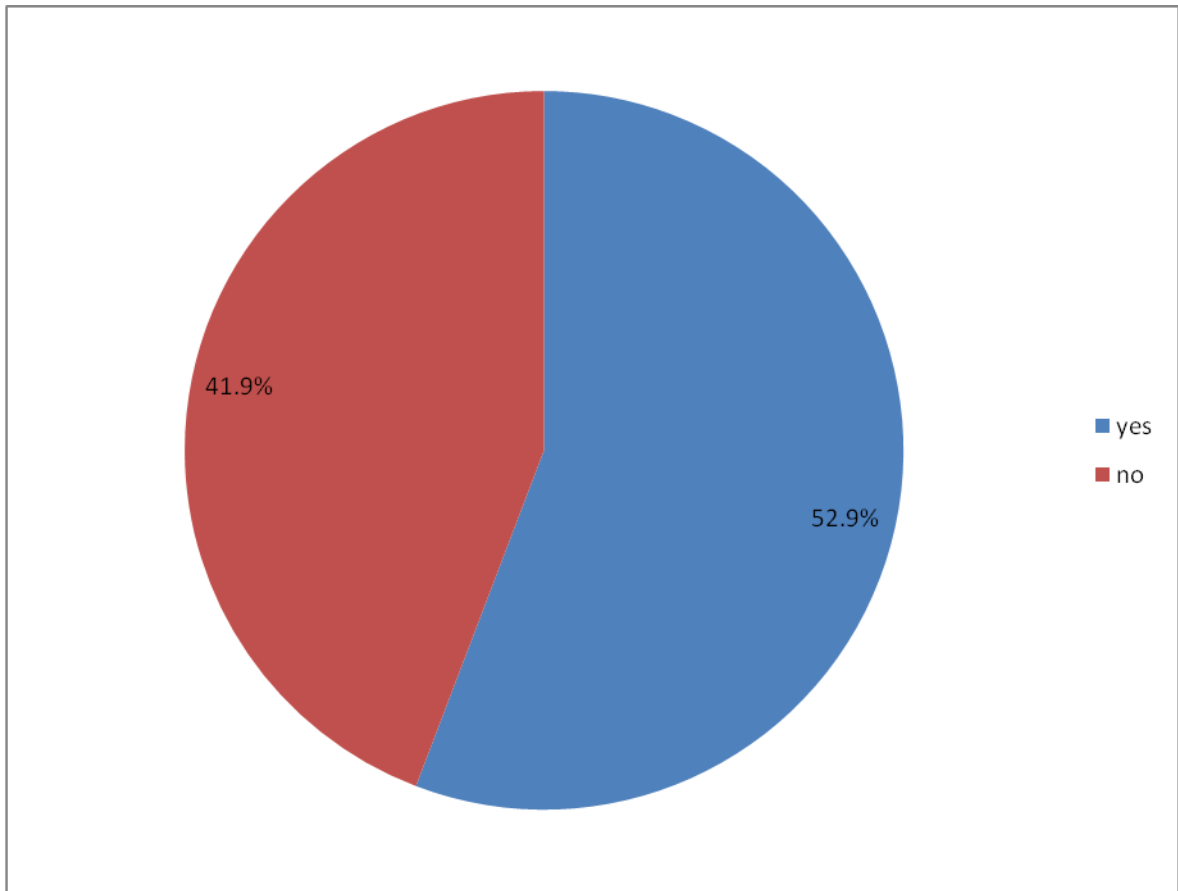


Figure 4.1 illustrates staff response on the existence of fraud and error controls. 52.9% of the accounting section staff, as highlighted in blue color and indicated by a “yes” on the scale, claimed that there exist fraud and error controls with their computerised accounting system. On the other hand, 41.9% of the staff as highlighted by the green pattern on the figure and indicated by a “no” on the scale claimed that such controls do not merely exist.

Figure 4.2 CAS ability to administer transactions before and after introduction of epicor system

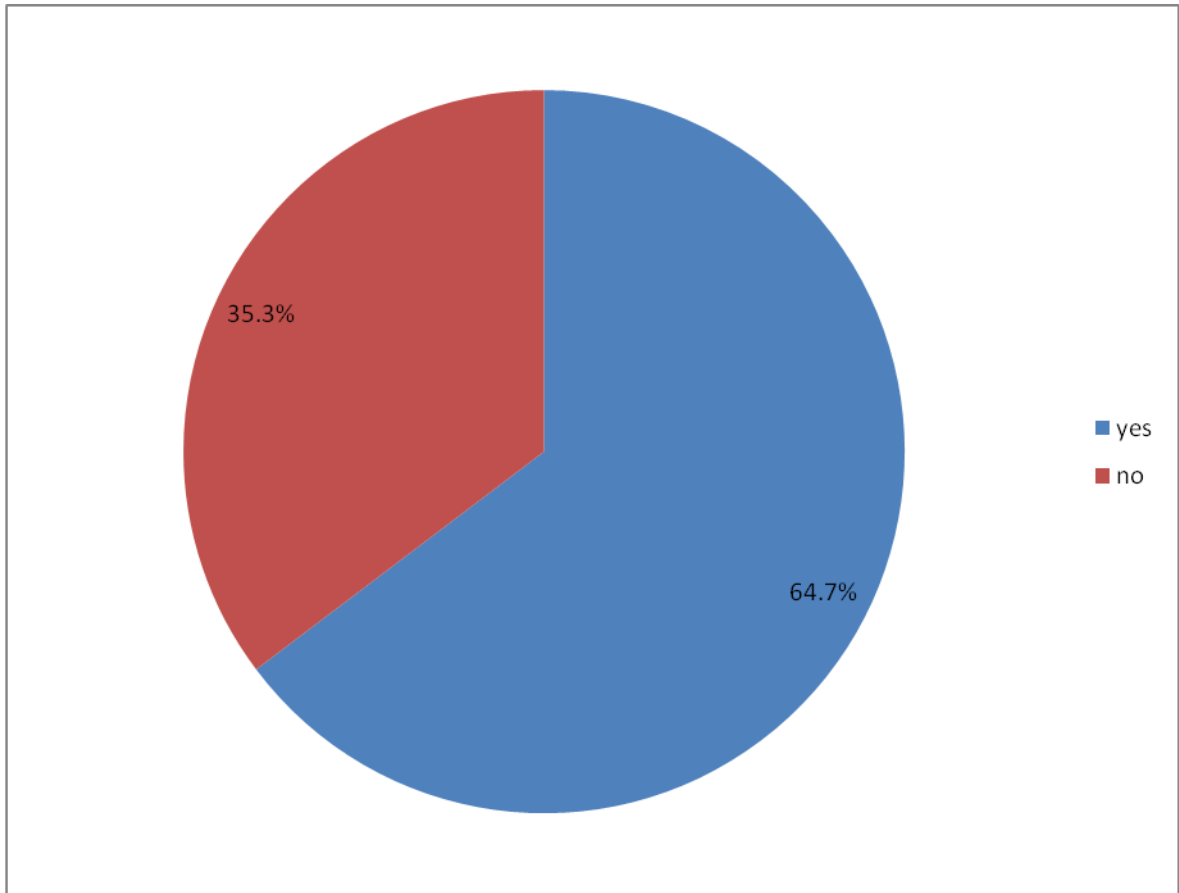


Figure 4.2 illustrates the staff response on the ability of CAS to administer transactions. 64.7% of the respondents, as indicated by a “yes” claimed that the system is able to administer and monitor all transactions. On the other hand, 35.3% of the respondents, as indicated by a “no” claimed that the system cannot administer transactions.

4.2 Discussion on the findings

4.2.1 Distribution on respondents' view on the applicability of epicor system in financial control

On the applicability of the computerised accounting system in enhancing financial control, 70.6% of the respondents claimed that the CAS in use could enhance financial control. The other 29.4% who disagreed with that fact is due to the reason that there exist some loopholes upon using such system as far as financial control is concerned. For instance, in the case when one staff could be allowed to access the system through someone else's passwords, could lead to the possibility of committing frauds. It is clearly known that the system allows the segregation of duties, in the sense that when someone loads or enters a transaction to the system he/she cannot be able to post that particular transaction. But then consider a case when the personnel responsible for posting such transaction is not around, there might be great possibility providing his/her password to other staff so that they can proceed on with the work.

4.2.2 Organization performance in computerised accounting system

Since Musoma municipal council is under the Local government authorities, when I speak of organization performance the concern is not profit as this is a not profit making organization. Rather, the concern is the clear record of utilizing the resources allocated to the council in a particular financial year. In this case, 64.7% of the respondents agreed with the fact that the computerised accounting system in use is useful in enhancing organization performance. On the other hand, 35.3% disagreed from that fact. This was taken to mean that those who agreed with such fact did so in the grounds that the system restricts access for unauthorized personnel in such a way that only those ones with passwords could access the system. Hence it could reduce the possible attempts of committing frauds. For those who disagreed with the fact, did so on the grounds that epicor system has some limitations on this as one can enter a transaction and further approve it on the system, hence it leaves a room for someone to attempt to commit frauds.

4.2.3 Competence of staff to utilise CAS to ensure financial control

The competence of Musoma council staff to utilise the computerised accounting system in use, particularly the epicor system, sound a problematic. This is due to the fact that only 29.4% of the respondents agreed that there existed enough competent staff to utilise the epicor system in ensuring financial control. The other 70.6% of the respondents disagreed from such fact. For that case it means that there is a great possibility that the epicor system, if utilised to the fullest could play an important role in ensuring effective financial control. Inability of the staff to utilise such computerised accounting system indicates that there is lack of enough skills from among the personnel involved on the application of such system. This could possibly be the case due to lack of thorough training on the application of such system.

4.2.4 Solution for funds mismanagement

There have been reported cases of funds mismanagement in most of the councils under local government authorities. 47.1% of the respondents, who were all Musoma Municipal council staff agreed with the fact that computerised accounting system, particularly epicor system is a better solution for a problem of funds mismanagement. On the other hand, about 52.9% of the respondents disagreed from that fact. There could be improvements in funds management as far as epicor system is concerned. This means that to some extent the system could play an important role in enhancing proper funds management. This was observed by referring back on the days when there used to be manual accounting system. However the computerised accounting system could in no way be the only solution for the problem of funds mismanagement. Other factors such as accountability should be there to ensure proper funds management.

4.2.5 Administration and monitoring of transactions

Administration and monitoring of transactions sound somewhat effective on epicor system. 64.7% of the respondents claimed that the system enhances administration and monitoring of transactions.

On the other hand, 35.3% of the respondents declared that such system does not enhance administration of transactions. The epicor system is built in with capacity of restricting access in the sense that when someone logs in to the system and enters a particular transaction, the system will identify him/her by his/her name. For that case every transaction that is posted on the system can be monitored in that way, hence it enables the management to trace the one responsible for every single transaction that has been posted.

4.2.6 Existence of logical access controls

Logical access controls are tools for identification, authentication, authorization and accountability in computer information systems. They are components that enforce access control measures for systems, programs, processes and information. Of the respondents, 64.7% claimed that there exist such controls with the system; where as the remaining 35.3% of the respondents claimed that such controls never existed with the computerised accounting system. Logical access controls prohibit unauthorized personnel to access the system, and hence decrease the possibility of fraud attempts such as posting invalid transaction for personal interests. Logical access controls can be implemented by providing the authorized personnel with password that will enable them to log in to the system. However if the authorized personnel fails to keep properly their passwords it leaves the loopholes for unauthorized personnel to access the system.

4.2.7 Electronic transactions control

Electronic transaction controls refer to transactions that are made through the internet. It is the form of payment through electronic transfer. 29.9% of the respondents claimed that there existed electronic transaction control. On the other hand, 70.6% claimed that there never existed such controls. With electronic transaction such as transfer of funds from one bank account to another, normally the personnel in charge load the payment to the system and then forward it to the personnel in charge for approval. However there is lack of such controls as there is a loophole for hackers to interfere with the system.

4.2.8 Fraud and error reduction controls

52.9% of the respondents reported that there exist fraud and error reduction controls. On the other hand, 47.1% of the respondents reported that there were no fraud and error reduction controls in light of their computerised accounting system. The major concern in this case is segregation of accounting duties, such as recording and approving. There could possibly be the situations where segregation of accounting duties is violated, leaving some loopholes for fraud and errors. In the course of high workload there is no likely hood of experiencing segregation of accounting duties as it has been observed that one personnel completes the transaction from recording to posting, all by him/her.

4.2.9 Epicor system meets the financial reporting standards.

About 29.4% of the respondents believe that epicor system, which is their computerised accounting system in use, meets the financial reporting standards. On the other hand, 70.6% of the respondents disagree with that fact. The fact that epicor system does not meet the requirements of the financial reporting standards is due to a number of reasons. The financial reporting standards are flexible in the sense that they normally change at times so as maintain the quality of reporting, where as the epicor system is static to some extent. For instance, the International Accounting Standard 1 (IAS1) entails that among the elements of the financial statements that an entity should publish there is the so called “Statement of financial position”. Conversely, entities using the epicor system, particularly the Musoma council still identify this as the balance sheet. Epicor system could entirely meets the financial reporting standards only if there could be a room for updating such computerised accounting system. The only way of keeping it up to date with the dynamic financial reporting standards is to change the version, something which costs multi millions of money.

4.10 Output security control

All respondents believed that their council has control over access to sensitive information and restricted it only to the authorized users in the authorized time. About 94.1% of the respondents claimed that the output was stamped with the date and time. Only 5.9% of the respondents disagreed with the fact that output was stamped with date and time. However when a transaction is made and posted to the system, the computerised accounting system indicates the user identity and date on the output. For instance when one makes payment to a vender and print a payment voucher (output), such payment voucher will indicate the user identity and the date in which such payment voucher was printed. For that case it becomes easy to trace who is responsible for any particular transaction.

CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY IMPLICATION

5.1 Introduction

This chapter presents the conclusion and recommendations from the findings of the study as per research objectives. In order to fulfill the objectives of the study, questionnaires were designed in such a way as to implicate the impact of CAS on effective financial control. The impact of CAS was associated with different financial controls were established.

5.2 Conclusion

The research showed that Musoma Municipal Council effective 70.6% of the respondents indicated that computerised accounting system is applicable in financial control. Further, it has been revealed by 88.2% of the respondents that there existed logical access controls with their computerised accounting system, in such a way as to restrict system access to authorized personnel only. 94.1% of the respondents further revealed that epicor system is fully enhanced with security controls. 52.9% of the respondents claimed that the computerised accounting system is useful for fraud and error reduction, as it is enhanced with fraud and error reduction controls. Hence it is safe to say that computerised accounting system has an impact on ensuring effective financial control.

5.3 Recommendations

Due to computerized accounting system being vulnerable to virus in the modern world i recommended that Musoma Municipal Council should placed antivirus software, which includes virus scans of incoming e-mail messages and virus signatures that are updated at least weekly.

There is a need for all accounting staff at every level in local government to have training that will enable them to discharge their responsibilities accordingly.

There should be a system administrator so as to monitor and restricts the unauthorized personnel from accessing the system.

There should be a good storage facility for all documents that were executed digitally so that final reconciliation of accounts can be carried out each year as the case may be.

It is proposed that the government should provide appropriate incentives to encourage the use of CAS. Usually fully integrated Accounting software is very expensive to obtain and tax relief from this acquisition by government will reduce the financial burden of Musoma municipal council.

Areas of Further Studies

Further studies are needed that will reveal some other controls that can be influenced by the computerized accounting systems.

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APPENDEXES

APPENDIX I: QUESTIONNAIRE TO KEY RESPONDENT

Dear respondent

These were research questions conducted so as to evaluate the impact of computerised accounting system in ensuring effective financial control in LGAs, particularly Musoma District Council. Therefore, you are kindly request to answer the following questions below by giving out accurate information.

General Questions

- a) Name of your section
- b) Sex
- c) How long have you working in this council
 - i. 1 year
 - ii. 2 up to 5 years
 - iii. Above 5 years
- d) Education background.....
 - i. Certificate or diploma level
 - ii. Degree level
 - iii. Above degree level
- e) Do you have computer knowledge? (YES/NO).....
- f) If YES; what level?.....
 - i. Certificate
 - ii. Diploma
 - iii. Degree

Q1. Do you think epicor system is applicable in financial control as compared to the former manual system?

- a) Yes
- b) No

Q2. Do you think there is improvement on organization performance after the introduction of epicor system than once before?

- a) Yes
- b) No

Q3. Is there enough competence of staff to utilise CAS to ensure financial control?

- a) Yes
- b) No

Q4. From your experience do you think epicor system is a solution for funds mismanagement?

- a) Yes
- b) No

Q5. Are the transactions administered well under epicor accounting system than it was for the former manual system?

- a) Yes
- b) No

Q6. Are there logical access controls in your computerised accounting system?

- a) Yes
- b) No

Q7. Are there electronic transaction controls in your computerised accounting system?

- a) Yes
- b) No

Q8. Are there fraud and error reduction controls in your computerised accounting system?

- a) Yes
- b) No

Q9. Do you think epicor system meets the requirements of financial reporting standards?

- a) Yes
- b) No

Q10. Are there security controls in your computerised accounting system?

- a) Yes
- b) No

APPENDIX II: INTERVIEW GUIDE

Structured Interview

- a) What is your view on the application of EPICOR system in ensuring financial control within the Council?
- b) What are problems facing computerised accounting system?
- c) What do you think should be done to improve the efficiency of computerised accounting system?
- d) Is the accounting system is operating manually or computerised?
- e) Does the accounting staff have necessary skilled and knowledge on computerised system?
- f) Does the accounting information prepared by using accepted accounting system?