EFFECTIVENESS OF AUDITING IN COMPUTERIZED ENVIRONMENT IN PUBLIC SECTOR: A CASE OF MINISTRY OF HEALTH AND SOCIAL WELFARE

By

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2013
CERTIFICATION

We the undersigned, certify that has we have read and hereby recommend for acceptance by Mzumbe University, a dissertation entitled: *Effectiveness of Auditing in Computerized Environment in public Sector: A Case of Ministry of Health and Social Welfare*, in partial fulfillment of the requirements for award of the degree of the Master of Science in Finance and Accounting at Mzumbe University.

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DEDICATION

I dedicate this work to my lovely Family. Your moral support and encouragement during my study made this work a reality. You are the most beautiful gift from God. I love you!
### ABBREVIATIONS

CAATS | Computer Assisted Audit Techniques  
---|---  
CCT | Christian Council of Tanzania  
CPU | Central Processing Unit  
EDP | Electronic Data Processing  
GIGO | Garbage In Garbage Out  
IIA | Institute of Internal Auditors  
IT | Information Technology  
MoH & SW | Ministry of Health and Social Welfare  
PEST | Political, Economic, Social and Technological  
SWOT | Strength, Weakness, Opportunities and Threat  
UN | United Nations
ACKNOWLEDGEMENT

The present study is a summation of efforts and experiences of the researcher and other dedicated individuals. It is my pleasure to thank them all. However, a few deserve a mention.

My sincere gratitude to my supervisor, Dr. Felician Barongo for his guidance, perseverance and genuine critics brought this work to its present form. Her efforts, expertise and comment to academic work had been most helpful.

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Finally, I am responsible for my shortcomings in this work. Any error or omission that may appear is my sole responsibility.

God Bless you all!
ABSTRACT

There have been significant changes in the ICT and computer software. As a result, a lot of things are come through computers including auditing is inclusive. Many organizations have adopted the auditing through computer as this technology makes the auditing more easier than the manual systems of auditing.

The overall objective of this study was to investigate the effectiveness of auditing through computer. The specific objectives includes; to investigate the organization strength and weakness in applying auditing using computer system, to assess the effectiveness of auditing through computer at the ministry and to recommend areas of improvement in applying auditing computer at the MoHSW.

A case study design was a research design used and methods for data collection include; Interview, and questionnaires and documentary review. A sample of 70 respondents was selected which comprised only MOH & SW employees of the different levels and professions. The researcher also used purposive sampling technique for selecting the respondents from the population.

The study revealed that through the auditing through computer was not done fully was effective regardless insufficient skilled auditors. In addition, MOH & SW was using manual system of auditing at a larger extent compared to auditing using computer.

Finally the study recommended MOH & SW to improve its internal controls, procedures and policies so as to smoothen the way to adopt fully the use of computer in auditing. Also training to auditors is very important as the CAATS needs competent auditors.
TABLE OF CONTENTS

CERTIFICATION .................................................................................................i
DECLARATIONANDCOPYRIGHT ....................................................................ii
DEDICATION ........................................................................................................iii
ABBREVIATIONS ..............................................................................................iii
ACKNOWLEDGEMENT ......................................................................................iv
ABSTRACT ..........................................................................................................vii
TABLE OF CONTENTS .......................................................................................viii
LIST OF TABLES ................................................................................................x
LIST OF FIGURES ................................................................................................x

CHAPTER ONE ....................................................................................................1
INTRODUCTION AND BACKGROUND INFORMATION ...................................1
1.1 Introduction ....................................................................................................1
1.2 Background of the Problem .........................................................................1
1.3 Statement of the Problem ............................................................................4
1.4 Research Objectives ....................................................................................5
1.4.1 General Objective ..................................................................................5
1.4.2 Specific objective ....................................................................................6
1.5 Main Research Question .............................................................................6
1.5.1 Research Questions ...............................................................................6
1.6 Significant of the Study .............................................................................6
1.7 Limitation of the study ...............................................................................7

CHAPTER TWO ....................................................................................................8
LITERATURE REVIEW .........................................................................................8
2.1 Introduction ..................................................................................................8
2.2 The Conceptual Definitions ........................................................................8
    Computer .......................................................................................................8
2.3.1 Auditing in a computerized environment ..............................................11
2.3.2 Internal control in computer environment ............................................11
2.3.3 Computer Assisted Audit Techniques (CAATS) .................................................. 12
2.3.4 Description on Computer Assisted Audit Techniques (CAATS) ................... 12 
    Audit software .................................................................................................. 12
2.3.5 Auditor’s Operational Standards with Computers ........................................... 13
2.3.6 Computer Service Bureaux ........................................................................... 14
2.3.7 Benefit of e-audit .......................................................................................... 15
2.4 Empirical Review ............................................................................................... 15
2.4.1 Auditing through computer at MOH & SW .................................................. 17
2.4.2 Meaning and Essence of Internet Audit .......................................................... 17
2.4.3 Comparison of Internal Auditor and External Auditor .................................. 24
2.4.4 Functions of Public Auditors ......................................................................... 28
2.4.5 Independence of an auditor in an organization ............................................... 29
2.5 Empirical Literature review .............................................................................. 30
2.6 Research Gap ................................................................................................... 37
2.7 Conceptual Framework (Modeling) .................................................................... 38

CHAPTER THREE ........................................................................................................... 40
RESEARCH METHODOLOGY ...................................................................................... 40
3.1 Introduction ......................................................................................................... 40
3.2 Study Area ......................................................................................................... 40
3.3 Research Design .................................................................................................. 40
3.4 Study Population ................................................................................................ 41
3.5 Sample Size ........................................................................................................ 41
3.6 Sampling Procedure ........................................................................................... 41
3.6.1 Purposive Sampling ....................................................................................... 42
3.7 Data Collection Methods ................................................................................... 42
3.7.1 Interviews .................................................................................................... 42
3.7.2 Documentary Review .................................................................................... 43
3.8 Data Collection Instruments .............................................................................. 43
3.8.1 Questionnaires ............................................................................................. 43
3.8.2 Interview Questions ..................................................................................... 44
3.9 Data Validity ................................................................. 44
3.10 Data analysis Procedure ................................................ 44

CHAPTER FOUR ................................................................ 45
DATA PRESENTATIONS, ANALYSIS AND DISCUSSION ............. 45
4.1 Introduction .................................................................... 45
4.2 General Characteristics of the Sample ................................ 45
4.3 Data analysis of this study is presented in chronological order of the specific ...... 46
research objectives as follows: .................................................. 46
4.5 To assess the Ministry strength and weakness if any in applying auditing through
computer .................................................................................. 51
4.6 To assess the effectiveness of auditing through computer at the MOH & SW ........ 55
4.7 To recommend areas of improvements in auditing through computer at the
MOH&SW. .............................................................................. 58

CHAPTER FIVE ................................................................ 60
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS ........ 60
5.1 Introduction ..................................................................... 60
5.2 General Summary .............................................................. 60
5.3 Summary of Findings .......................................................... 60
5.3.1 To examine the effectiveness of auditing through computer at the Ministry ...... 60
of Health and Social Welfare, Headquarters Dar es Salaam ......................... 60
5.3.2 To assess the Ministry strength and weakness if any in applying auditing ........ 61
through computer ........................................................................ 61
5.3.3 To recommend areas of improvements in auditing through computer at ......... 62
the MOH & SW. ..................................................................... 62
5.4 Conclusion ........................................................................... 63
5.5 Recommendation ............................................................... 63
5.6 Areas for Further Studies ...................................................... 64
REFERENCES ..................................................................... 65
QUESTIONAIRES .................................................................. 68
LIST OF TABLES

Table 4.1: Age of Respondents ................................................................. 45
Table 4.2 Respondents’ Level of Education ........................................... 46
Table No. 4.3 Do you know the meaning of computer assisted auditing ....... 47
techniques? ......................................................................................... 47
Table No: 4.4: Is there any differences between auditing through computer ... 48
auditing using paper records (Manual systems)? .................................... 48
Table No: 4.5: How the auditing is applied at the MOHSW? ..................... 50
Table No: 4.6: What do you understand/know is/are the strength and ........... 52
weakness of using computer in auditing? (Mention at least 5 for .................. 52
each). ............................................................................................... 52
Table No: 4.7: What do you understand/know is/are the strength and .......... 53
weakness of using computer in auditing? (Mention at least 5 for ................. 53
each). ............................................................................................... 53
Table No.4.8: What do you think is a most frequent used model of auditing at ... 55
the MOH & SW? ................................................................................ 55
Table No. 4.9: How effective the auditing through computer is at the ............ 56
MOHSW? .......................................................................................... 56
Table No.4.10: Is there competent Auditors who can audit through computers? 57
Table No.4.11: What area of auditing through computer do you think need ....... 59
improvement? ...................................................................................... 59
LIST OF FIGURES

Figure No.1: The meaning of computer assisted auditing techniques ....................... 47
Figure No.2: Differences between auditing through computer auditing using .......... 49 paper records (Manual systems).............................................................................. 49
Figure No.3: The auditing is applied at the MOHSW ............................................. 50
Figure No.4: A most frequent used model of auditing at the MOH & SW? .............. 55
Figure No. 5: The auditing through computer is at the MOHSW?......................... 56
Figure No.6: Is there competent Auditors who can audit through............................. 58 computers? .............................................................................................................. 58
Figure No.7: Area of auditing through computer do you think need....................... 59 improvement? .......................................................................................................... 59
CHAPTER ONE
INTRODUCTION AND BACKGROUND INFORMATION

1.1 Introduction
This chapter introduce the historical background information to the problem; statement of the problem, objectives of the study, the research questions, and the significance of the study and organization of the study.

1.2 Background of the Problem
The computer technology has revolutionized the technique of data processing. Computers are now used for processing all information helpful to the management and to arrive at correct results within the shortest period. These days even the routine clerical jobs are performed by the use of computers. In Tanzania too, computers are being increasingly used in keeping accounting and other records of business as well as for decision-making and other managerial task like planning and controlling. Increasing number of firms are now using computers to process their accounting data. Until recently computers were used only by large entities and even those were making very limited use of computers in processing their transactions. The use of computers was mainly limited to payroll processing however computers use now extended to all other areas of accounting and all size of firms.

The availability of relatively inexpensive microcomputer system has made it possible for even the smallest firm to use computers for many accounting transactions, this is the matter of concern to auditors since there will be a radical change in the manner the accounting data is recorded, controlled and audited. Computers have the advantage of processing a large volume of data at a high speed and high level of accuracy. But they equally increase the chance of manipulation and fraud taking place without detection Temu and king’ori, (2000)

Internal Audit Services has become one of the Major pillars in prosperity of Private and public sector. Now a day’s Company, Organization, Ministry or a Public sectors are growing in size, scope and Complexity thus there is a growing need for a separation of internal assurance function from management. Management therefore remains with the role of verify the (Accounting) information and decision –making.
Around the turn of 21st century, the establishment of a formal internal audit function to which these responsibilities could be delegated was seen as logical answer. In due course, the internal Audit function became responsible for careful collection and interpretive reporting of selected business facts to enable management to keep track of significant business development activities and result from diverse and voluminous transactions Mautz (1964).

The need for internal audit was strengthened by the fact that, Management needed some means of evaluating not only the efficiency of work performed in their respective organizations, but also integrity of its employees, control, risk management and good governance. This is a modern outlook of the functions of the internal audit in any organization today.

The Institute of Internal Auditors (IIA) believes that an organization is best served by a fully resourced and professionally competent internal auditing staff that provides value added services that are critical to the efficient and effecting management and organization. The internal Audit Function has recently become one of the major support functions for Management, audit committee, board of directors, external auditors, as well as the key stake holders. The government of Tanzania has recognized this by providing acts and regulations to guide the function and its implementers. The Public financial Regulations act of 2001 section 28, for the Government of united Republic of Tanzania, provides that, an accounting officer shall establish an effective Internal Audit service unit throughout the Ministry, Department or Agency or other Reporting unit as the case may be, for which [s]he is responsible and may be advised by the permanent secretary [Ministry of Finance] to establish an Audit Committee.

Furthermore, section 29(1), of the Government of United Republic of Tanzania, In order to ensure that adequate and consistent standards of Internal Audit are applied throughout the government, the Accountant General shall be responsible under these regulations for ensuring that the status and powers of the internal Audit function in each Ministry, Department or Agency of Government conform to internationally
accepted standards. In its section 33, Internal Audit means an independent Appraisal Activity established within a ministry Department, Agency or Region or other reporting unit which operates as a service to the head of the unit involved, of which it controls activity function by examining and evaluating the adequacy and effectiveness of internal controls in the unit reviewed and for conducting operational /value for money audits throughout the unit in order to insure that proper systems of internal control and accounting systems exist throughout the unit.

If properly conceived and implemented, the internal audit function can play a critical role in promoting and supporting effective organizational governance. Without internal Audit in place, there is a great possibility of having no accountability therefore no any controls and thus, organizations may face the risks like, irregularities, frauds, Nugatory expenditure, Misappropriation of Government fund, Misuse of the organization assets, incorrect balance of revenue collection, embezzlement and un intentionally miscalculations.

These irregularities are common to large organization with an aggregate number of employees as well as a large month payments and receipts. It is not a surprise that the demand for risk management professionals has raised dramatically. The internal Audit also perform micro level risk assessment for its own purposes to identify those areas, which demand the greatest efforts on the part of the internal audit function, for achieving appropriate audit coverage of the audit universe over defined period of time. All organizations should understand that they may collapse if they fail to adhere to effective internal audit function through proper plan of the audit work and the whole audit processes, as well as an establishment of independent internal audit department. Other common problem are on how the organization will deals with the major risk, lack of security on accounting and other managerial computerized information and records that may result on manipulation of stored data hence poor financial management.

The growing emphasis on value for money, cost control, VFM audit and expenditure suggest that internal Audit will continue to be an essential part of the overall system.
of financial controls in public bodies. Presence of internal audit function in an organization however, must not necessarily ensure efficiency as there has been witnessed some weaknesses among organizations with relatively firm internal audit departments. Copnell (1999) Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit work. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for instance, electronic data processing machine, that is, computer. The computer technology has revolutionized the technique of data processing.

Settler (1982), just like other systems, a computer as a system also has got its elements or components. These elements can be categorized as, input devices, output devices as well as storage devices. It should be clearly understood that, the computer could never wok in isolation. That is, there must be a person with the computer literacy to lead the computer so that it can give out the expected results efficiently and effectively. “GIGO”, “garbage in garbage out” a computer proverb have been used to put emphasis on this. It stresses that the, accuracy and quality product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called human-ware or org-ware. That’s the human being as part of the computer system.

1.3 Statement of the Problem

As Copnell (1999) stated, Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit works. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for
instance, electronic data processing machine, that is, computer. The computer technology has revolutionized the technique of data processing. Settler (1982), said; “garbage in garbage out” a computer proverb has been used to put emphasis on this. It stresses that the, accuracy and quality product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called human-ware or org-ware. That’s the human being as part of the computer system.

The role of an internal Auditor is to provide independence and objective assurance on the effectiveness of system of control to manage risk. All organization Big or small, private or public faces risk in all area of their business or activity and this risk need to be managed.

According to the Institute of Internal Auditors (IIA), internal auditing is defined as an independent objective assurance and consulting activity designed to add value and improve an organization operation.

Despite the adoption of CAATS at the Ministry of Health and social Welfare, internal report still indicates inefficiencies in internal audit performance. The inefficiencies can be seen in increasing cases of fraud, nugatory expenditure, Misappropriation of Government funds, Misuse of the organization assets, incorrect balance of revenue collection which leads to Audit query.

These issues raises the questions about what are the effectiveness of CAATS MOH & SW if there were still cases of misappropriation and inefficiencies in audit through Computer.

The researcher study intended to examine the role of Internal Audit department at Judiciary to an organization efficiency using the Judiciary of Tanzania as a case for the study.

1.4. Research Objectives
1.4.1 General Objective
The main research objective was to assess the effectiveness of auditing through computer at the Ministry of Health and Social Welfare.
1.4.2 Specific objective
i) To investigate the organization strength and weakness in applying auditing using computer system.
ii) To assess the effectiveness of auditing through computer at the ministry.
iii) To recommend areas of improvement in applying auditing computer at the MHSW.

1.5 Main Research Question
Is there auditing through computer effectiveness at the MOHSW?

1.5.1 Research Questions
i) What are the strength and weakness of auditing through computer at ministry of health and social welfare?
ii) How effective is the auditing through computer at the ministry of health and social welfare?
iii) What are the recommendation on improving the comprised auditing at the ministry of health and social welfare?

1.6 Significant of the Study
The findings from this study provide will guide and become useful for researchers with interest to carry out researches in the same area. The study will enable the expansion of the body of knowledge to professional, academicians and public in large. Recommendations emanating from this study are presumed to assist the policy makers in both Private and public sectors to review their internal policies so as to reflect efficiency in the organization.

The study may enable the organization to implement a code of conduct covering four principles of integrity, objectivity, competence, and confidentiality and a process to provide assurance that the code is being followed by all internal audit staff.

To enhance an appropriate understanding and bring knowledge to the public and private sector up on the essence of maintaining effective and conducive internal audit function.
1.7 Limitation of the study

The following were the constraints or hindrances to the researcher:-

The study was about the effectiveness of auditing computer MOH & SW and its scope was narrowed to the directorate of finance and to the member of management at the Judiciary of Tanzania.

The time granted to accomplish the research was too little in such a way that it was difficult to cover the big sample, so only a reasonable sample size was covered.

Due to both confidentiality and management reasons and the respondents’ reluctance of ignorance, all these constitute to the poor access of data and information collection to the researcher.

Some members of staff due to one reason or another were unwilling to provide the necessary information to the researcher. This also constituted the whole exercise to come up with inadequate data / information.

Funds was another limiting factor based on the factor that, money was required to support issues like stationeries, printing, photocopies and transport.

1.8 Delimitation

Due to the time granted for this study, the scope of the study was only limited to investigate the effectiveness of auditing through computer at MOH & SW and also was conducted within the Dar es Salaam region where the researcher was living and working. This enabled the researcher to collect data and questionnaires easier and reduce cost e.g. transport expenses.
2.1 Introduction
This study involved examining the previous researcher work through Theoretical and Empirical Literature. It included reviewing of previous similar work in the relevant area by quoting to make citation. Findings were obtained from primary source that were research reports, text books and other writings that enabled the researcher to obtain more information.

2.2 The Conceptual Definitions
E-Audit
Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit work. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for instance, electronic data processing machine, that is, computer. The computer technology has revolutionized the technique of data processing, Copnell, (1999).

Computer
A computer is an electronic machine that can read, understand, and interpret, as well as executing the instructions that have been input in it. Or electronic machines that can store organize and find information do calculation and control other machines.

2.3 Theoretical Basis of the Study
The need for internal audit was strengthened by the fact that, Management needed some means of evaluating not only the efficiency of work performed in their respective organizations, but also integrity of its employees, control, risk management and good governance. This is a modern outlook of the functions of the internal audit in any organization today.
The Institute of Internal Auditors (IIA) believes that an organization is best served by a fully resourced and professionally competent internal auditing staff that provides value added services that are critical to the efficient and effecting management and organization.

The internal Audit Function has recently become one of the major support functions for Management, audit committee, board of directors, external auditors, as well as the key stake holders. The government of Tanzania has recognized this by providing acts and regulations to guide the function and its implementers.

The Public financial Regulations act of 2001 section 28, for the Government of united Republic of Tanzania, provides that, an accounting officer shall establish an effective Internal Audit service unit throughout the Ministry, Department or Agency or other Reporting unit as the case may be, for which [s]he is responsible and may be advised by the permanent secretary [Ministry of Finance] to establish an Audit Committee.

Furthermore, section 29(1), of the Government of United Republic of Tanzania, In order to ensure that adequate and consistent standards of Internal Audit are applied throughout the government, the Accountant General shall be responsible under these regulations for ensuring that the status and powers of the internal Audit function in each Ministry, Department or Agency of Government conform to internationally accepted standards.

In its section33, Internal Audit means an independent Appraisal Activity established with in a ministry Department, Agency or Region or other reporting unit which operates as a service to the head of the unit involved, of which it controls activity function by examining and evaluating the adequacy and effectiveness of internal controls in the unit reviewed and for conducting operational /value for money audits throughout the unit in order to insure that proper systems of internal control and accounting systems exist throughout the unit.
If properly conceived and implemented, the internal audit function can play a critical role in promoting and supporting effective organizational governance. Without internal Audit in place, there is a great possibility of having no accountability therefore no any controls and thus, organizations may face the risks like, irregularities, frauds, Nugatory expenditure, Misappropriation of Government fund, Misuse of the organization assets, incorrect balance of revenue collection, embezzlement and unintentionally miscalculations.

These irregularities are common to large organization with an aggregate number of employees as well as a large month payments and receipts. It is not a surprise that the demand for risk management professionals has raised dramatically. The internal Audit also perform micro level risk assessment for its own purposes to identify those areas, which demand the greatest efforts on the part of the internal audit function, for achieving appropriate audit coverage of the audit universe over defined period of time. All organizations should understand that they may collapse if they fail to adhere to effective internal audit function through proper plan of the audit work and the whole audit processes, as well as an establishment of independent internal audit department. Other common problem are on how the organization will deals with the major risk, lack of security on accounting and other managerial computerized information and records that may result on manipulation of stored data hence poor financial management.

The growing emphasis on value for money, cost control, VFM audit and expenditure suggest that internal Audit will continue to be an essential part of the overall system of financial controls in public bodies. Presence of internal audit function in an organization however, must not necessarily ensure efficiency as there has been witnessed some weaknesses among organizations with relatively firm internal audit departments.
2.3.1 Auditing in a computerized environment

According to Stettler, F. H (1982), just like other systems, a compute as a system also has got its elements or components. These elements can be categorized as, input devices, output devices as well as storage devices. It should be clearly understood that, the computer could never work in isolation. That’s there must be a person with the computer literacy to lead the computer so that it can give out the expected results efficiently and effectively. “GIGO”, “garbage in garbage out” a computer proverb have been used to put emphasis on this. It stresses that the, accuracy and quality product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called **human-ware or org-ware**. That’s the human being as part of the computer system.

2.3.2 Internal control in computer environment

The auditor would like to study the internal control system of those businesses where accounts are maintained on computerized accounting system.

Though many internal controls are employed in this system, allocation of duties and systems of authorization depends on the same principles as that in the same of manual systems. Still there are many special controls, which are applicable in the electronic processing of accounting data; the study of such controls is very necessary from the point of view of audit.

The auditor should understand the significance of all such controls, since negligence in any of them may mean that the data generated by such system is not reliable. However, the introduction of the computers and other machines in the field of accounting is not a guarantee against all types of errors. In the Electronic data processing (EDP) system, the nature of internal control is different and it is therefore necessary for the auditor of any company using electronic data processing (EDP) to open his mind to the changes that this necessitates.
It is always suggested that the management should consult the auditor at the time of installation of the system of processing electronic data.

2.3.3 Computer Assisted Audit Techniques (CAATS)

AG 16 was released in 1984 and is entitled “Computer Assisted Audit Techniques” the purpose of this IAG is to provide guidance in the use of (CAATS). It applies to all uses of CAATs involving computer of any type of size. Major aspects covered include descriptions of computer assisted Audit techniques; using CAATs and using CAATS in small business computer environment relevant positions of the above IAG are reproduced below.

2.3.4 Description on Computer Assisted Audit Techniques (CAATS)

This guideline describes two of the more common types of CAAT, audit software and test data used for audit purpose. However, the guidance provided in this guideline suppliers to all types of CAATs.

Audit software
Audit software consists of computer programs used by the auditor, as part of his auditing procedures, to process data of audit significance from the entity’s accounting system. It may consist of package programmers, purpose written programs, and utility programs regardless of the source of the programs, the auditor should substantiate prior to use

Package program
Package programs are computer programs designed to perform data processing functions that includes, reading computer files, selecting information, and performing calculations creating data files and printing reports in a format specified by the auditor.
i) Purpose – written programs
Purpose written programs are computer programs designed to perform audit tasks in specific circumstances. The programs may be prepared by the auditor by the entity or by an outside programmer engaged by the auditor. In some cases, existing entity programs in some cases by the auditor in their original or in a modified state because it may be more efficient than developing independent programs.

ii) Utility programs
Utility programs are used by the entity to perform common data processing functions, such as sorting, creating and printing files. These programs are generally not designed for audit purpose and therefore, may not contain such features as automatic records counts or control totals.

2.3.5 Auditor’s Operational Standards with Computers
The TSASG No. 6 states that the basic principles of the operational standard are applicable whatever the system used by the client in processing transactions. However, there are additional matters to be considered in auditing a computerized system. There are summarized below.

Planning
The auditor will in additional to the normal planning procedures need to consider whether he/she is going to use CAATs manual procedures in the audit. These are important because the choice will have significant effect on the nature, extent and timing of the audit tests. In most cases the audit will used combination of CAATS and manual procedures. The appropriate combination will depend on, available evidence, if no evidence is available, manual procedures will not be practicable. CAATs will have to be used.

Cost, using CAATs is normally costly. The cost will have to be compared with benefit derived for instance early completion of the audit. If it is not cost-effective, manual procedures will be used. Time constraint, if the client has tight reporting
deadline, CAATs may have to be used because they are quicker to apply. Availability of the computer facility, if CAATs are used, the auditor will definitely need a computer to work with.

Use of internal auditor, if CAATs are used especially in evaluating the controls in the computer the auditor may through out the year have to rely on the internal auditors to perform periodic checks on the working of those controls. The availability of an effective internal audit department may therefore encourage the auditor to use CAATS in the audit expensive of the auditor, if the auditor and his/her staff do not have sufficient computer knowledge, they might have no alternative but to resort to manual procedures where the audit rail is completely lost because of too much invisible evidence, assistance has to be sought from specialist with the necessary computer knowledge. In extreme cases the auditor might have to decline taking an engagement in those cased where she or he does not possess the competence to complete audit satisfactory.

**Controlling**

If the auditor is using CAATs and services of a computer specialist, the auditor must be careful to Co-ordinate the work of the computer specialist with the work of others in the audit team.

Have the technical work reviewed by someone with the necessary expertise.

**Recording**

Working papers should record details of work performed using CAAT’s, the results of the test and conclusions reached. Bulky computer print-out can be filed separately. Problems encountered and if possible the recommendations for improving the use of CAATS in future should be documented.

**2.3.6 Computer Service Bureaux**

Computer bureaux are organizations, which proved E.D.P that is Electronic Data Processing facilities to their clients. Many business enterprises use computer
bureaux instead of installing their own computers. The auditor’s duties remain the same whatever the data processing system used by his client but the use of computer services bureaux does present special difficulties to the auditor in evaluating the reliability of the records. In this case, the following measures must be taken: - There should be controls over the movement of data to and from the bureaux standards at the bureaux must be adequate.

2.3.7 Benefit of e-audit

It saves time – electronic audit are compared much faster than manual audits. Company personnel and auditors spend less time completing the audit. It saves paper – an electronic audit reduces the amount of paper normally needed during the audit. It is more efficient – more efficient technique for reviewing accounting information the used in electronic audits.

2.4 Empirical Review

The computer technology has revolutionized the technique of data processing. Computers are now used for processing all information helpful to the management and to arrive at correct results within the shortest period. These days even the routine clerical jobs are performed by the use of computers. In Tanzania too, computers are being increasingly used in keeping accounting and other records of business as well as for decision-making and other managerial task like planning and controlling. Increasing number of firms are now using computers to process their accounting data. Until recently computers were used only by large entities and even those were making very limited use of computers in processing their transactions. The use of computers was mainly limited to payroll processing .however computers use now extended to all other areas of accounting and all size of firms.

The availability of relatively inexpensive microcomputer system has made it possible for even the smallest firm to use computers for many accounting transaction. this is the matter of concern to auditors since there will be a radical change in the manner the accounting data is recorded, controlled and audited. Computers have the
advantage of processing a large volume of data at a high speed and high level of accuracy. But they equally increase the chance of manipulation and fraud taking place without detection Temu and king’ori (2000).

Internal Audit Services has become one of the Major pillars in prosperity of Private and public sector. Now a day’s Company, Organization, Ministry or a Public sectors are growing in size, scope and Complexity thus there is a growing need for a separation of internal assurance function from management. Management therefore remains with the role of verify the (Accounting) information and decision –making.

Around the turn of 21st century, the establishment of a formal internal audit function to which these responsibilities could be delegated was seen as logical answer. In due course, the internal Audit function became responsible for careful collection and interpretive reporting of selected business facts to enable management to keep track of significant business development activities and result from diverse and voluminous transactions Mautz (1964).

As Copnell (1999) stated, Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit works. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for instance, electronic data processing machine, that is, computer. The computer technology has revolutionized the technique of data processing.

Settler (1982), said; “garbage in garbage out” a computer proverb have been used to put emphasis on this. It stresses that the, accuracy and quality product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called human-ware or org-ware. That’s the human being as part of the computer system.
2.4.1 Auditing through compute at MOH & SW

Different audit organizations go about computer auditing in different ways and individual auditors have their own favorite ways of working. Different audit firms have got different procedures to be followed in a particular audit assignment. A “typical” computer audit assignment at MOH & SW has the following stages.

i) Scoping and pre-audit survey – the auditors determine the main area/s of focus and any areas that are explicitly out-of-scope, based normally on some form of risk-based assessment. Information sources at this stage include background reading and web browsing, previous audit reports and, sometimes, subjective impressions that deserve further investigation.

ii) Planning and preparation – during which the scope is broken down into greater levels of detail, usually involving the generation of an audit work plan or risk-control-matrix (don’t be fooled, it’s only a checklist with a bunch of interesting questions, space to scribble some notes and some other impressive-looking columns).

iii) Analysis – this step involves desperately sorting out, reviewing and trying to make sense of all that evidence gathered earlier. SWOT (Strengths, Weaknesses, Opportunities, and Threats or PEST (Political, Economic, Social, and Technological) techniques may come in handy.

iv) Reporting – desperately reviewing and trying to make sense of the analysis, then writing it up, re-waiting it, re-re-writing it circulating it within the department for peer review, modifying it again, then circulating or presenting it to clients and client managers to have their say, and finally issuing it.

2.4.2 Meaning and Essence of Internet Audit

According to Kaplan (2006); Internal Auditing is an independent activity established by management to examine and evaluate organization’s risk management and system
of control, and to make recommendations for the achievement of company objectives.

Internal Audit is a long standing function and an effective tool of management in many organizations. It has been recognized component of organizations in both public and private sector, and in most industries for many years (Beale and Bradford, 1993).

According to Government of Tanzania Internal Audit Manual, Internal Audit is an independent department within an organization. It helps management by reviewing, assessing and evaluating the internal control system.

Stoner (1994) was of the opinion or view that the objective of internal audit is to evaluate several of the organization’s reports for accuracy and usefulness and also recommending improvement of the control system.

Owler and Brown (1999) stipulated that the objective of internal auditor is to protect management against errors of principle and neglect of duty

Barker (1999) agreed with Owler and Brown but added that it is to review the operations and record of the undertaking and in the course of these checks much of the detailed work of the organization in respect of financial and other statements are effectively audited.

Tracey (1994) is of the view that it is the responsibility of the internal auditor to review how well the accounting system works and also evaluate the effectiveness and efficiency of many operations in the organization.

Carmichael and Willingham (1987), and Grigoraou (1989) argue that internal auditing is the audit that performed by employees of organizations functioning in a staff capacity and reporting to a high level officer in the organization.

Carmichael et al.(1996), Internal Audit is essentially an appraisal activity within an organization for the review of Accounting, Financial and other operations as a basis
for service to management by measuring and evaluating the effectiveness of organizational controls, Internal Audit itself is an important managerial device.

Internal Auditing is an independent objective assurance and consulting activity designed to add value and improve organizations operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and processes. This definition reflects the changing roles of Internal Auditors. They are expected to provide value to the organization through improved operational effectiveness while also performing traditional responsibilities such as

i) Reviewing the reliability and integrity of information
ii) Ensuring compliance with policies and regulations
iii) Safeguarding assets

Shayo et al. (2000) gives a comprehensive definition of Internal Audit. It defines internal audit as “an independent appraisal function established by management of an organization for the review of the internal control system as a service to the management. It objectively examines, evaluates and reports on the adequacy of internal control as a contribution to the proper, economic, efficient and effectiveness use of resources “Internal Audit is therefore an element of Internal control system set up by management.

Unegbu and Obi (2007) defined internal audit as part of the Internal control system put in place by management of an Organization to ensure adherence to stipulated work procedure and as aid to management. Adeniji (2004) internal audit is part of the internal control system put in place by management of an organization. It is an aid to management; it ensures that the financial operations are correctly carried out according to the law and also in accordance with the wishes of the board or council.

Robertson (1996) defines “Internal auditing as an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization. The objective of internal auditing is to assist member of the
organization in the effective discharge of their responsibilities. Internal auditing furnishes them with analyses, appraisals, recommendations, counsels, and information concerning the activities reviewed”.

Chambers (1991) “Internal auditing is the process of appraising the information flow to the monitoring function of a system for its quality and completeness.”


Millchamp (1987) defines “Internal auditing as an independent appraisal activity within an organization for the review of operations as a service to management. It is a managerial control which functions by measuring and evaluating the effectiveness of other controls.”

Woolf (1986) defines “Internal audit is an element of the internal control system set up by the management of an organization to examine, evaluate, and report on accounting and other controls on operations. It exists either voluntarily or in certain circumstances because of a statutory requirement.” Pierce and Kilcommins(1996), The audit expectations gap is when external auditors' and duties is compared against the expectations of user.

Wang (1999) argue that internal audit is an independent activity conducted by departments, enterprises and undertakings so as to perform internal supervision examine accounts and related assets, supervise authenticity, legality and effectiveness of financial revenues and expenditures.

Internal Auditing is defined by Kumar and Sharma (2005); as a continuous review of operations and records undertaken within the business and is normally done by specially assigned staff. It should operate independently of all the internal check and in no case should divest any one of the responsibilities placed up on him.
Public Finance Act,(2001),section, 33;Internal Audit means an independent Appraisal Activity established with in a ministry Department, Agency or Region or other reporting unit which operates as a service to the head of the unit involved, of which it controls activity function by examining and evaluating the adequacy and effectiveness of internal controls in the unit reviewed and for conducting operational value for money audits throughout the unit in order to insure that proper systems of internal control and accounting systems exist throughout the unit;

It go further by adding that, “Internal Control” Means a set of systems operated by an organization to ensure that financial and other records are reliable and complete, and they adhere to management policies orderly and efficient conduct of the business and proper recording and safeguarding of assets and resources.

Institute of Internal Auditors (IIA), 1978 “An independent appraisal activity established within an organization as a service to the organization. It is a control, which functions by examining and evaluating the adequacy and effectiveness of other controls.”

**Roles of Internal Audit**

Internal auditing (IA) serves as an important link in the business and financial reporting processes of corporations and not-for-profit providers, (Reynolds 2000).

**Roles of Internal Audit**

According to Better Guide (2007), Page 9-11, roles of Internal Audit; are:

Preparation of periodic Annual assessment of the effectiveness of an entity’s systems of internal Controls based on the result of Internal Audit work conducted during the Period, Analysis of the results of reviews conducted by other internal and external assurance providers.

**Performance improvement audits**

It is generally accepted that internal audit not only provides assurance on compliance with procedure and systems of internal control, but it is also well placed to assist management to improve business performance.
Advisory services
Internal audit can also provide valuable advice to entity management and staff to assist them in managing the entity’s risks in respect of programmers, systems, and processes, risk management processes and fraud control.

New programs, system and processes
The introduction of new programmers, systems or processes, often involving substantial expenditure and tight timeframes, can present additional risks for entities that need to be identified from the start and well managed early in the process.

Risk management
Given its expertise in risk and control assessment generally, together with its experience in reviewing activities across the organization, internal audit is well placed to assist the entity to develop and monitor its risk management framework. Internal audit’s role can include:

i. providing formal training and risk management advice to managers;
ii. reviewing management’s risk assessments and associated risk mitigation controls and actions
iii. providing independent assurance over risk management processes, in particular, reporting against the achievement of control strategies
iv. providing an opinion on the overall effectiveness of the entity’s risk management framework, and
v. Facilitating or co-coordinating risk management processes in the entity. The role that internal audit can play in developing and maintaining an entity’s risk management.

Framework will be influenced by the maturity of the framework and the extent that risk management is embedded in day to day operations. Whatever role internal audit plays in risk management, appropriate arrangements should be in place to maintain the operational independence of internal audit.
Fraud control
Responsibility for managing the risk of fraud, like responsibility for managing all risks, rests with management as part of its ongoing responsibilities. However, internal audit can assist an entity to manage fraud control by providing advice on the risk of fraud and/or by advising on the design or adequacy of internal controls to minimize the risk of fraud occurring. It can assist in detecting fraud by considering fraud risks as part of its audit planning and being alert to indicators that fraud may have occurred. Fraud investigation is a matter that requires specialist knowledge and skills. Any decision to allocate management responsibility to internal audit for the investigation of fraud should be taken in the full knowledge of the special risks involved and skills required in collecting and collating evidence that may be used in any legal proceedings.

The role of internal audit in relation to fraud control should be considered as part of the organization’s overall fraud risk assessment and fraud policy, Better Practice guide (2007).

(Beale and Bradford, 1993), point out the role of Internal Audit to the rest of the organization as;

i) Regular review and appraisal Controls;
ii) Ascertaining Compliance with procedures, regulation and legislation;
iii) Recommending improvements in control, performance and productivity;
iv) Being proactive, creative and understanding the organization’s goals;

Internal auditors play a key role in monitoring a company’s risk profile and identifying areas to improve risk management Stewart and Kent (2006).

Vos (1997) said that objective of internal auditor is to evaluate effectiveness of financial and operating control, confirm compliance with company policies, procedure, protect assets verify the accuracy and consistency of organization’s external and internal reports “expectations gap” is the difference between what the public and users of financial statements perceive the role of an audit to be and what
the audit profession claim is expected of them during the conduct of an audit Ojo (2006).

The aim of internal auditing is to improve organizational efficiency and effectiveness through constructive criticism. IA has four main components: (1) verification of written records; (2) analysis of policy; (3) evaluation of the logic and completeness of procedures, internal services and staffing to assure they are efficient and appropriate for the organization’s policies; and (4) reporting recommendations for improvements to management (Eden and Moriah 1996).

The objective of internal auditing is to assist members of the organization in the effective discharge of their responsibilities. To this end, internal auditing furnishes them with analyses, appraisals, recommendations, counsel and information concerning the activities reviewed (Ali and et al. 2007).

Countermanche (1986) the role of Internal Auditing comes as a result of overlooking the obvious: that internal auditing is simply a role! Internal Auditing is tied neither to a particular academic degree nor to a particular functional aspect of the company such as accounting. Being an internal auditor is like being a manager. No one would attempt to tie the label “manager” to a specific academic background or to a specific function area in business. The title “manager” denotes a role and so does the title “internal auditor”. An individual may have engineering and it may be his (or her) intention to return to engineering work at a later time. But if he is assigned to the Auditing department, and if his duties involve ascertaining, appraising or recommending from a position of organizational independence, he is performing the role of an internal auditor.

2.4.3 Comparison of Internal Auditor and External Auditor

The objective of internal auditor and External auditor are similar, that is the independent examination of the financial statements and expression of opinions there on. The main difference between the two is that the internal auditors are employee of
the company and is responsible for its management. While the external Auditor has the statutory responsibility to report on the financial statements to the shareholders not management. She/he can in on the way become subservient to management. Therefore, and internal auditor lack the independence with which the external auditors is (should be) endowed.

Factor to be considered by External Auditor in assessing the effectiveness of the internal Audit function before placing reliance on the internal audit work is as follows;

i) **Due professional care**
The external auditors should consider whether the works of the internal Auditor generally appear to be properly planned, controlled, recorded and reviewed. This can be evidenced by an existence

ii) **The degree of independent**
Although the Internal auditor is an employee of an entity and cannot therefore be independent of it, he/she should be able to plan and carry out his/her work as she wishes. An internal auditor should have an access to the highest level of management normally the chief executive or board of director's. the internal Auditors should not be subservient to middle management and must be independent of the line functions. The internal auditors should be free to communicate with external auditors. Any restrictions that may have placed by management on the internal auditor should be carefully evaluated by external auditor.

iii) **Scope and objectives**
The external auditor should examine the internal auditor's formal term of agreement and should ascertain the scope and objectives of the internal audit assignment. The external auditor should check the scope and function of an internal audit function such as reviewing accounting systems and internal control; Examining financial and operating information for management including detailed testing of transaction and balances, this two are likely to be useful to external auditor, but also reviewing the
economy, efficiency effectiveness of operations and of the functioning of non-financial controls; Reviewing of implementation of corporate policies, plans and procedures; special investigation can also help the external auditor to put reliance on the work of external auditor.

iv) Technical competence
Membership of professional body with its competence and ethical implications is desirable. Here internal auditor should also attend an ongoing training in specialist areas, such as computers are useful. The external auditor should ascertain whether the work of the internal auditor is performed by persons having adequate training and proficiency as auditor. The chief Internal Auditor should necessary be a CPA or Equivalent.

v) Reporting standard (internal audit report)
A useful Internal Auditor will provide a high standard Reports which are acted up on by management. Here the External auditor will consider the quality of Report issued by internal auditor to the management, management responses and action taken as a result of recommendations made by the internal auditor.

i) Roles of Internal Audit
ii) Introducing further controls
iii) Refining or amending existing control to make them more effective;
iv) Ensuring that existing controls are applied regularly and consistently;
v) Reducing unnecessary controls; and
vi) Introducing best practices.

Public Regulation (2001), The Tanzania Internal Audit service has linked two roles which are improvement and assurance.

i) Ensure that the government of the united republic of Tanzania’s management and internal control systems are continually being improved and optimized in response to an ever changing environment.

ii) Provide reasonable assurance to the relevant permanent secretaries and the paymaster General that significant risks in, ministries, departments and
agencies are being appropriately managed with an emphasis on the role of internal control.

iii) Organization that is run efficiently”.

Duties of Internal Auditing services unit is explained by, Public finance Act, (2001), Section 34. The Internal Audit Services shall appraise the soundness and application of accounting, financial and operational controls and in particulars shall:

i) Review and report on proper control over the receipt, custody and utilization of all financial resources of the unit;

ii) Review and report on conformity with financial and operational procedures laid down in any legislation or any regulation or instruction issued under such legislation and good accounting practice as from time to time defined by the accountant General in order to avoid incurring obligation and authorizing payments to the extend which would ensure effective control over the expenditure of the unit;

iii) Review and report on the correct classification and allocation of revenue and expenditure accounts;

iv) Review and report on the reliability and integrity of financial and operating data so that information provided allow for the preparation of accurate financial statements and other report for the information of the unit and the general public as required by legislation;

v) Review and report on the system in place used to safeguard assets, and as appropriate, the verification of the existence of such assets;

vi) Review and report on operations or programs to ascertain whether results are consistent with established objectives and goals;

vii) Review and report on the adequacy of action by management in response to internal audit reports, and assisting management in the implementation or recommendation made by those reports and also, where appropriate, recommendations made by controller and Auditor General;

viii) Review and report on the adequacy of controls built into computerized systems in place in the unit.
2.4.4 Functions of Public Auditors

According to Johnson (1996) General duties of an internal auditor in the public sector management include the following:

i) An audited copy of a statement of the accounts is to be submitted in a prescribed form together with any report to the appropriate minister or secretary of state who in turn presents the accounts before the National Assembly.

ii) The auditors must state whether the accounts in their opinion give a true and fair view of the operation affairs.

iii) The auditor must state whether the accounts give all the information required under enabling statute.

iv) The auditors will normally report if they are not satisfied with any aspects of the financial statements.

The “expectations gap” is the difference between what users of financial statements, the general public perceives an audit to be and what the audit profession claim is expected of them in conducting an audit. In this respect, it is important to distinguish between the audit profession's expectations of an audit on one hand, and the auditor's perception of the audit on the other hand. Apart from users of financial statements and the general public, an auditor may also perceive a somewhat different interpretation or worse still fail to comply with the standards set by the audit profession Ojo (2006).

The effectiveness of internal auditing is not a computable reality, but rather is determined by the subjective evaluations assigned to this function by management. In other words, the success of any internal audit can only be measured against the expectations of the relevant stakeholders (Albrecht et al. 1988).
Glazer and Jaenike (1980) argued that performing auditing work according to internal auditing standards contributes significantly to the effectiveness of auditing. Ridley and D’Silva (1997) found in the UK that complying with professional standards is the most important contributor to IA’s added value. Standards for audits and audit-related services are published by the IIA (2008) and include attribute, performance and implementation standards.

2.4.5 Independence of an auditor in an organization

Bou-Raad (2000) argued that the strength of an IA department must be assessed with respect to the level of independence it enjoys from management and from operating responsibilities. The IIA, the American Institute of Certified Public Accountants (AICPA) and others have likewise identified organizational independence as crucial to the viability of the internal audit function (Brown 1983).

Mautz and Sharaf (1964) differentiate among three dimensions of independence: programming independence, investigative independence and reporting independence. Montondon (1995), Rittenberg (1977) and Chambers, Selim and Vinten (1988) differentiate between organizational independence, based on organizational support, and individual independence, based on individual factors. They argue that organizational independence is more crucial to the effectiveness of internal auditors, as it protects the auditor from pressure or intimidation, and increases the objectivity of the auditing work.

Courtemanche (1986) identifies four objective and independent auditing factors: access to information or people, objectivity, freedom and responsiveness of the system. Van Peursem (2005), based on interviews with Australian internal auditors, and concluded that independence from management is a dominant feature of successful auditing programs. Clark, Gibbs and Shroeder (1981) found that the independence of the internal audit department and the level of authority to which the internal audit staff report are the two most important criteria influencing the objectivity of their work.
2.5 Empirical Literature review

There are some academicians/researchers who conducted their studies related to the topic of research which are:

Henry (2000); from Lebanese American University explains that it is the responsibility of internal Audit department to test, evaluate analyses of internal control employed by the management to safeguard organization’s assets and to ensure accuracy of financial records.

Mhilu (2002) in his book Advanced Auditing and Investigation define internal auditing as an independent appraisal activity established by management of the entity as a service in exercising effective internal controls. Its function includes examining, evaluating and monitoring the adequacy and effectiveness of the accounting and internal control system. The scope and objectives of the internal auditing vary widely and depend on the size and structure of the entity and management needs. In general the activities of the internal audit function can include: review of the accounting and internal control system; examination of financial and other operating information; reviewing of the economy, efficiency and effectiveness of operations including non-financial controls; and the review of compliance with laws, regulations and other external requirements and with management policies and directives and other internal requirements.

Sanga (2003) focusing on Christian council of Tanzania (CCT) effective and efficiency of internal auditing system, Revealed that audit in an organization, and the quality of internal audit in Tanzania is of low quality. The study found that there was lack of proper segregation of duties resulting to improper auditing function. The study recommended that the management of CCT should ensure that there is a proper segregation of duties by recruiting more staff worker so as to ensure adherence to the policies and operating regulation and procedures.

Asiwe, (1999/2000) observe that other obstacles facing effectiveness and efficiency included poor competency of staff, poor working environment, heavy workload, un
computerized system, risks, poor budget and the limitation on the scope and responsibilities of internal auditing as placed by management.

The institute of chartered Accounts (1987/88) said “internal audit is an element of internal control system set up by the management. The extent to which the external auditor is able to take account of the work of the internal auditor will depend on his assessment of the effectiveness of the internal audit function.

Institute of Internal Auditors, Inc., New York in the published statement on the responsibilities of internal auditors, under the heading of “nature of internal audit” states that internal audit implies an audit of the accounts by employees of the business. The work is done by separate set of staff that may or may not have professional qualification.

Spice and Peglar (2001) define the system of Internal Audit as internal Audit is best regarded as the whole system of internal controls, financial and otherwise established by the management in the conduct of a business including internal check, internal audit and other forms.

Howard (1977) argued that “internal auditing is an independent appraisal activity within the organization for the review of operation of services to management. It is a managerial control which functions by measuring and evaluating the effectiveness of other control”

(Saleem, 1970) define internal audit as a continuous Review of operation and records undertaken within the business and is normally done by specially assigned staff. It should operate independent of internal check and in no case should divest any one of the responsibilities placed up on him.

International Professional Practices Frame work, IPPF, (January2009) Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve organizations operations. It helps an organization accomplish
its objective by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

According to Millichamp (2002) Auditor are expected to make an assessment of control environment in a client. A good control environment may well mean that internal control is strong but none the less internal Control may be weak at the level of control procedures. He continues by saying that “Internal Control are essential features of any organization that is run efficiently”.

Asare (2008), The role of internal auditing can be identified as involving three main elements, namely the evaluation and improvement of risk management, control and governance processes. These elements are sometimes referred to as the “three pillars” of internal auditing.

Liggio (1974) defined the audit expectations gap as the difference between the levels of expected performance as interpreted by the independent accountant and the user of financial statements.

Elizabeth Macrae, (2010) The IA-CM can help internal audit activities develop the capabilities necessary for effective internal auditing in the public sector that are appropriate both for their organization and the external regulatory environment. It also will help internal auditing’s stakeholders and decision makers understand the important role and value that internal auditing has in public sector governance and accountability.

The public sector accountant has the responsibility of developing systematic arrangements to assist management in the performance of the services of the institution while the public sector auditor has among other duties, the complementary role to examine whether management actually performs that efficiently, Unegbu and Kida (2011).

Howard (1977) said that “internal audit is an independent appraisal activity within the organization for review of operations as a service to management”. It is a
managerial control, which functions by measuring and evaluating the effectiveness of other control. The functions of internal audit are to assist all members of management in the effective discharge of their responsibilities, by furnishing them with analysis, appraisal, and recommendations and pertinent concerning the activities reviewed. The internal auditor is considered with any phase of business activity where he can be of service to management.

An internal audit function is an essential part of any public expenditure management system and should ensure that public spending is within budgetary provisions; disbursements comply with specified procedures, provides for the timely reconciliation of accounts and effective systems for managing and accounting for physical and financial assets (Commonwealth 2005, p.17).

Van Gansberghe (2005) puts forward the case that “Management must recognize the value added role of internal audit and contribute towards its effectiveness.”, and that “As internal auditing in the public sector assumes a status of professional practice, management would benefit from its recommendations in improving its decision-making and thus would be playing a more proactive and foresight role” Economic Implications of Ineffective Internal Auditing System in the Public Sector Management are explained by Unegbu and kida (2011).

The effectiveness of auditing System can be reinforced. Economically, internal auditing is meant for internal consumption with varying socio-economic benefits. In Public Sector according to Azubike (2002), internal control is highly effective in increasing the reliability of accounting data and in protecting against fraud. The economic implications of an ineffective auditing system in a public sector management are the negative aspects of the positive development of the auditing system such as:

i) Inability to plan effectively due to the availability of unconfirmed financial operations of the enterprise in past years

ii) Inability to make effective financial decision.
iii) Lack of credibility of enterprise before external entities—government financial house, creditors etc.

iv) Inadequacy of information about the enterprise’s assets.

v) Inability of the enterprise to rely on any proper statement on past, current and proposed future balance sheet on revenue, revenue sources, expenditure items, profits and losses.

vi) Difficulties in controlling the financial operations of the enterprise.

vii) There is the possibility of the emergence of fraud.

viii) Inability to detect easily the compliance of enterprise financial accounts with the requirement of law.

International Professional Practices Framework (IPPF, January 2009) Internal Auditing is an independent objective assurance and consulting activity designed to add value and improve organizations operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and processes. In its definition show that for an organization to accomplish its objective Control and risk management must be in place.

International Professional Practices Framework (IPPF, January 2009) “Internal Control” Means a set of systems operated by an organization to ensure that financial and other records are reliable and complete, and they adhere to management policies orderly and efficient conduct of the business and proper recording and safeguarding of assets and resources.

(XVIII INCOSAI, 2004) Internal control is an integral process that is effected by an entity’s management and personnel and is designed to address risks and to provide reasonable assurance that in pursuit of the entity’s mission, the following general objectives are being achieved:

i) Executing orderly, ethical, economical, efficient and effective operations;

ii) Fulfilling accountability obligations;

iii) Complying with applicable laws and regulations;

iv) Safeguarding resources against loss, misuse and damage.
Elder et al. (2008) A process designed to provide reasonable assurance regarding the achievement of management objectives in the following categories: (1) reliability of financial reporting, (2) effectiveness and efficiency of operations and (3) Compliance with applicable laws and regulation.

Elder et al. (2008) a system of internal control consists of policies of policies and procedure designed to provide management with reasonable assurance that the company achieves its objectives and goals. These policies and procedures are often called Controls, and collectively, they make up an entity’s internal control. Government of Tanzania Internal Audit Manual, defined internal Control from TIAS point of view: An Internal Control is the whole system of Controls, accounting financial, administrative, supervisory and managerial established by the management of an organization in order to carry on its business or activities in an orderly and efficient manner; to promote operational efficiency, to safeguard its assets; and to secure as far as possible the completeness and accuracy of its records.

The following principal feature of internal Control evident from the above definition should be noted:

i) There must be proper Authorization procedure at every stage before any contractual obligation is entered into;

ii) There must be a proper recording of all transactions, fully supported by the creation and/or preservation of supporting document;

iii) There must be well established procedure for proper custody of the organization’s asset and,

iv) There must be adequate supervisory and managerial controls in order to ensure that the policies and procedures of the organization are being observed and operated effectively.

An effective system of internal control reduces the probability of not achieving the objectives. However, there will always be the risk that internal control will be poorly designed or fail to operate as intended.
Responsibility for Control
Management has the responsibility for establishing and maintaining appropriate, adequate and effective control within the organization so that objectives may be achieved with the optimum use of resources. It is the role of audit to assist management through the provision of advice and appraisals concerning the design and operation of internal controls, but this does not absolve management responsibilities. Part of this control is the existence of an internal audit service.

Responsibilities of internal Audit
Where an internal Audit service is employed its responsibilities are generally defined as to review, appraise and report on:

i) The soundness, adequacy and application of internal controls

ii) The extent to which the organization’s controls secure the achievement of corporate objectives, promote operational efficiency and safeguard assets and interest;

iii) The extent of compliance with policies plans and procedures;

iv) The integrity and reliability of financial and other management information used by the organization.

Internal control system as illustrated by Government of Tanzania internal Audit Manual
Policies, plans and Procedures
An engagement and Supervision
Computer Based Controls
IT Environment
Bank Reconciliations
Control accounts
Control for Individual Systems:

i) Payments System

ii) Payroll

iii) Cash receipting system

iv) Fixed asset register
Component of Internal Control (XVIII INCOSAI, 2004) Internal control consists of five interrelated components:

- Control environment
- Risk assessment
- Control activities
- Information and communication
- Monitoring

Smyth (2004), are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aims.

**The origin of audit**

Saxena (2001) reveals that, the practices of auditing account may be traced back to the early stages of civilization in those, auditing was undertaken mainly for public accounts to be scrutinized and audited by the independent officials. However the audit of accounts of private business houses was rare as the size of business house was small and the management and ownership was the same. Individual business houses with limited capital resource used to carry on the small scale. Production was limited and the number of transaction to be recorded was also small in number. The methods of recording the transactions were simple and usually maintained and checked by the owners themselves.

**2.6 Research Gap**

Many researchers have conducted studies on internal audit/internal controls. Sanga (2003/4) has conducted a study on the effectiveness of Internal Audit in an organization where Myers (1997) conducted the study on the perceived benefit of
certified internal auditors designation also Kaplan (2007) conducted the study on Audit and Internal Review, where until this study was studied no any effectiveness of auditing through computer at any ministry or organization particularly in Tanzania.

2.7 Conceptual Framework (Modeling)

![Conceptual Framework Diagram]

Source: Researcher’s Modeling 2012

This above conceptual modeling indicates, that in order to have on effective auditing through computer, the organization must have competent and trained auditors who can perform the task through a computer programme e.g CAATs. Auditors are required to link with IT department and individual computer user in order to access the data. But also there must be a central data store (central data server(s) which facilitate the storage of all organization data (information), but all these seem to be dictated by the ministerial operating systems and control. Time each components in the above diagram depends to each other. Therefore there must be a linkage and
correlation between all elements involved in the systems. The ministerial operating systems and internal control mechanisms also may contribute positively or negatively towards the effectiveness of the auditing through computer.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methods used in conducting this study. It was organized under the following sections; study design, study population, sample size, data collection methods, collection instruments, and data analysis.

3.2 Study Area

This study was conducted in Dar es Salaam region and taken the Ministry of Health and Social Welfare as the case for study. The choice influenced by the facts that the Ministry of Health and Social Welfare is among Ministries established many years ago and it could as well be the good representative sample for the rest in Tanzania. Other factor had been that the researcher live, work and studies at Mzumbe University – Dar es Salaam Campus.

3.3 Research Design

Research design was a detailed plan of work to be done to achieve the research objectives. It was the detailed plan that guided the researcher in the whole process of collecting, analyzing and explaining the data. (Kothari 2004 p31) This is because research design is a framework for specifying the relationships among the study variables and a plan for selecting the sources and types of information to be used in answering the research question (Zuri, 1996).

A case study design was applied in conducting this research or study which aimed at assessing the performance of textile industry in Tanzania. The motive for adopting a case study was due to the following reasons; it was fairly exhaustive method enabled the researcher to study deeply and throughout different aspect of a single situation in this case MOH&SW, cheap in term of time and cost, flexible in terms of data collections and in view of the fact that the study was the case study designed to make the study easier for the topic and methodology due to time and funds available.
3.4 Study Population

The target area of concentration of this study included the management of the MOH&SW, head of departments, staffs and other stakeholders Ministry at the stated proportions in the sample size. Total population was expected to be 100. Leady (1998) define population as the aggregate of all cases that conform to designated set of specifications.

3.5 Sample Size

In carrying out this study more consideration was put to obtain the sample which was real representative of the population under the study. Thus the sample was expected to be constituted with 100 respondents, but only 82 out of 100 respondents. This sample involved elements drawn from different departments and sections of the organization. The researcher divided the population into four strata which included; management, departmental leaders and staffs. Therefore 82 number of respondents used as the base for this study.

3.6 Sampling Procedure

Sampling is a process of obtaining a sample from a given population that will actually be determined before data collection (Kothari, 2004) Because of financial and resources constraints the researcher felt that it would not be possible to cover the whole population. Instead sampling techniques were to be used to determine and get the representative number of people whom could be manageable by the researcher in the course of study.

Due to nature of the study the researcher used two types of sampling procedures these were judgmental/purposive sampling techniques and simple random sampling. Judgmental sampling technique was used because it was reliable technique which enabled to obtain respondents who were considered to be the key people by virtue of their positions or any other characteristics which deemed fit by the researcher and simple random sampling technique was also used as it simplified the availability of the representative sample.
The researcher found that simple random sampling was necessary because it was appropriate for case study design; it was less costly and applied easily. Under this technique, the researcher divided the total population into four groups namely Auditors, Accountants, Directors and heads of departments of the Ministry.

3.6.1 Purposive Sampling

Here the judgment of the researcher used to select the cases that made up the sample. Heterogeneous character of individuals on what motivate them made the researcher to choose this type of sampling technique so as to obtain chance of asking any employee of the Ministry. The researcher used his own judgment on the selected elements.

However, he chosen sample elements for those not covered in the quota sampling. The main targeted group for the purposive sampling was directors and Heads of Departments. About twenty (17%) respondents were obtained through purposive sampling which were 17 persons.

3.7 Data Collection Methods

Data collection was done through utilizing of several methods clearly. These methods were Interviews, Questionnaire, Observations and Documentary sources. It was therefore important for the researcher to use multiple sources of data to get as broader view as possible about specific case.

3.7.1 Interviews

This involved presentation of oral verbal stimuli and reply in terms of oral verbal responses. Interview was important for collection of primary data. It was also found that managers are more likely to agree to be interviewed rather than complete questionnaires. The Researcher conducted in depth interviews on the ministry leaders, heads of departments and staffs. All data concerned with the audits and challenges facing the Ministry were obtained from the management and head of departments.
The questions concerned with impact that performance of business has touched the surrounding population may be obtained from all employees of company and other stakeholders basing on the sample. However, other data collection methods used for the areas not covered by interview.

3.7.2 Documentary Review

This included written documents of the company such as journals, books, magazine, administrative and public records as well as non written documents such as tape and video recording (if any). The researcher used documentation so as to obtain some other secondary data necessary to answer research questions which include company performance. The researcher used all written documents such as administrative records, books and journal which in one way or another may help to answer research questions.

3.8 Data Collection Instruments

3.8.1 Questionnaires

The researcher used the structured questionnaire during his case study in which questions were specified and all respondents other than customers will reply the same set of questions. However the researcher may keep the questions of customers in the same questionnaire paper. The researcher use questionnaire because it was reliable, simple, needs minimum costs and the required data are collected with a minimum number of errors.

The researcher used both closed questionnaires (“Yes” or “No” questions) and open questionnaires (inviting free response). Questionnaires were designed to bring out silent aspects of the research which may not be covered by interviews which include, what is the major problem that has led to the challenges to the auditing using computer at MOF&SW over the past few years. The researcher used both English and Swahili language.
3.8.2 Interview Questions

Interview questions were used to collect data from interviews. In this case, both closed and open-ended questions were used. Open-ended interview questions were enable respondents to give as many answers as possible. Open-ended questions enabled respondents to explain issues deeply and that resulted into collection of valid and reliable data. The closed-ended questions were enabled respondents to provide concrete answers’ because of having pre-determined answers.

3.9 Data Validity

To ensure that, the collected data were valid expected respondents were selected and be given questionnaire or be interviewed basing on purposive and random sampling procedures. This enabled data to be collected from reliable source and this facilitated reliability and validity of sources and data respectively.

3.10 Data analysis Procedure

In this study, the data were analyzed and processed qualitatively and quantitatively. Findings which were presented in the form of numbers or percentages were operationally while those presented in the form of descriptions (words) were analyzed qualitatively. But also the discussion and analysis of findings were made basing on quantities and description. Through such findings the researcher analyzed the various factors which influence the performance of Textile industry.

Data were gathered through different data collection methods pointed earlier i.e. interviews, questionnaire and documentary sources. Tables and figures were used to present findings. Data collected and analyzed using descriptive statistics such as frequencies, percentages and means in order to summarize and organize data in meaningful way. The data were interpreted so as to give clear meaning to the reader. The researcher used sample drawn from the population to draw conclusion about the whole population.
CHAPTER FOUR
DATA PRESENTATIONS, ANALYSIS AND DISCUSSION

4.1 Introduction
This chapter presents analysis and discussion on the research findings obtained from the field using different tools, namely; questionnaires, interviews, documentary reviews and observations. The prime purpose of data analysis is to ultimately provide evidence in form of responses to the research questions in respect to the stated objectives, which were formulated to determine the overall objective of this study. This study intended to determine the effectiveness of auditing through computer at the MOH&SW. This chapter analyses and discusses the gathered information based on specific objectives.

4.2 General Characteristics of the Sample
The expected sample was 70 persons but responded ones were only 65 respondents whom constituted the studied sample. The sample was manipulated in sex, age, and level of education as follows; male were 37 while female were 28.

Table 4.1: Age of Respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>8</td>
<td>12%</td>
</tr>
<tr>
<td>26-35</td>
<td>20</td>
<td>31%</td>
</tr>
<tr>
<td>Above 35</td>
<td>37</td>
<td>57%</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Table 4.1 shows that, the age group of 18 to 25 had 8 respondents (12%) compared to other groups. This can partly be attributed to the fact that MOH&SW is among the oldest ministries in Tanzania and this might has been attributed from the facts that many people had been employed some years ago that is why persons in the group of 18-25 years they were not as many as in other groups. The second group of
respondents is that of 26-35 years of age in which 20 respondents equivalent to 31%, this seemed to comprise the middle class in terms of age and seniority due to time in the employment. Also, those above 35 years were 37 equals 57% this group is characterized by age or longer experience in service or employment.

**Table 4.2 Respondents’ Level of Education**

<table>
<thead>
<tr>
<th>Level of education</th>
<th>frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate/or Diploma</td>
<td>16</td>
<td>24%</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>29</td>
<td>45%</td>
</tr>
<tr>
<td>Postgraduate Degree</td>
<td>20</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Table 4.2 shows that the 16 respondents had certificates/Diploma (24%), respondents with Bachelor degree were 29 respondents (45%) and the group of Postgraduate degree had 20 respondents (31%). It can be seen that there was no respondent who had no education as this was done randomly and purposely to those groups of people who have education or an understanding of the accounting, finance or auditing or those who were aware of the whole internal organization systems at MOH&SW.

**4.3 Data analysis of this study is presented in chronological order of the specific Research objectives as follows:**

The study addressed the following research objectives in achieving the scope of this study.

i. To study the auditing through computer at MOH&SW.

ii. To assess the Ministry strength and weakness if any in applying auditing through computer.

iii. To assess the effectiveness of auditing through computer at the MOH&SW.

iv. To recommend areas of improvements in auditing through computer at the MOH&SW.
4.4 To study the auditing through computer at MOH&SW.

From this objective three questions were raised in order to achieve this objective as follows:

Table No. 4.3 Do you know the meaning of computer assisted auditing techniques?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51</td>
<td>79%</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Somehow</td>
<td>12</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Figure No.1: The meaning of computer assisted auditing techniques

Table No. 4.3 shows that 51 of the respondents (79%) said they know the meaning of auditing through computer where 2 respondents (3%) did not know the meaning of auditing through computer while 12 respondents (18%) they were somehow know it or a bit. This question wanted to know the knowledge of the sampled respondents
upon the subject under the study in which almost 97% of the responded persons showed that they knew the meaning. This assisted the researcher to understand the reliability and validity of the responses.

**Table No: 4.4: Is there any differences between auditing through computer auditing using paper records (Manual systems)?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, one uses auditing software and computer needed records and the later uses paper records.</td>
<td>49</td>
<td>75%</td>
</tr>
<tr>
<td>Yes, one uses computer devices and the later uses papers</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Yes auditing through computer uses mouse, keyboard, monitor and CPU while the later uses pen and records on papers.</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Yes, one uses electronic stored data and the later uses manual stored data.</td>
<td>12</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012
Table No. 4.4 shows that 49 responses (75%) knew the difference between auditing through computer and paper records (manual system) where 4 responses failed to know the difference between the two while 12 responses (19%) also seemed to know since said one uses computer stored data and the other uses manual stored data though the first group of responses at least connected the computer with auditing software which also uses computer during application (CAATs) thus made the total of 61 responses (94%) managed to differentiate the auditing through computer and the auditing using manual system.

This justified that at a larger quantity the sample under the study knew the meaning of auditing through computer, as Settler (1982), said; “garbage in garbage out” a computer proverb has been used to put emphasis on this. It stresses that the, accuracy and quality product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called human-ware or org-ware. That’s the human being as part of the computer system.
Table No: 4.5: How the auditing is applied at the MOHSW?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the use of skilled/trained auditors and special software like, CAATs.</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Through the use of external auditors who have been coming for such purposes at every time intervals.</td>
<td>11</td>
<td>17%</td>
</tr>
<tr>
<td>Through the use of both, computer and manually recorded data and trained skilled auditors (internal and external) even electronically (power point) and through papers.</td>
<td>12</td>
<td>19%</td>
</tr>
<tr>
<td>Through computers and through manual records.</td>
<td>38</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Figure No.3: The auditing is applied at the MOHSW
Table No. 4.5 shows that 4 respondents (6%) said the auditing through computer is applied using special software like CAATs with aid of skilled/trained auditors, 11 respondents (17%) said auditing at MOH&SW is applied through the use of external auditors who have been coming for such purposes at every time intervals, 12 responses (19%) said the auditing at MOH&SW used both computer and manually recorded data and trained skilled auditors (internal and external) even electronically (power point) and through papers, while 38 respondents (58%) said the auditing at MOH&SW is done through computers and through manual records.

This revealed that the auditing at MOH&SW is done using both methods and thus the auditing through computer was not totally employed hence still depended on manual records (paper evidences) . This is also advocated by Temu and king’ori (2000) when said that;the availability of relatively inexpensive microcomputer system has made it possible for even the smallest firm to use computers for many accounting transactions, this is the matter of concern to auditors since there will be a radical change in the manner the accounting data is recorded, controlled and audited. Computers have the advantage of processing a large volume of data at a high speed and high level of accuracy. But they equally increase the chance of manipulation and fraud taking place without detection.

To assess the Ministry strength and weakness if any in applying auditing through computer.
Table No: 4.6: What do you understand/know is/are the strength and weakness of using computer in auditing? (Mention at least 5 for each).

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger data can be audited at a shorter time compare to auditing through papers.</td>
<td>61</td>
<td>28%</td>
</tr>
<tr>
<td>Speed and accuracy in processing data is higher compare to manual system.</td>
<td>59</td>
<td>27%</td>
</tr>
<tr>
<td>The sorting of large volume of data is easier.</td>
<td>58</td>
<td>27%</td>
</tr>
<tr>
<td>It is easier to find any faulty or fraud urgently</td>
<td>39</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Total pointed answers**  217  100%

Source: Research Data, 2012

Table No.4.6 (for strengths) shows that 61 responses (28%) pointed that one of the strengths of using computer in auditing is that larger data can be audited at a shorter time compare to auditing through papers, 59 responses (27%) pointed out that computer facilitates speed and accuracy in processing data is higher compare to manual system, 58 responses (27%) pointed out that the sorting of large volume of data is easier while 39responses (18%) pointed out that It is easier to find any faulty or fraud urgently than using the manual system.

Also these responses are witnessed by Copnell (1999) saying that; Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit work. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for instance, electronic data processing.
machine, that is, computer. The computer technology has revolutionized the technique of data processing.

Table No: 4.7: What do you understand/know is/are the strength and weakness of using computer in auditing?(Mention at least 5 for each).

**WEAKNESSES**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error in data entry can be reflected in findings</td>
<td>52</td>
<td>26%</td>
</tr>
<tr>
<td>Auditing through computers is still inhibited with auditors personal weaknesses and incompetence.</td>
<td>62</td>
<td>31%</td>
</tr>
<tr>
<td>Lack of qualified, enough and honesty auditors</td>
<td>49</td>
<td>24%</td>
</tr>
<tr>
<td>Leakage of confidential data to unauthorized officials is very certain.</td>
<td>39</td>
<td>19%</td>
</tr>
</tbody>
</table>

**Total pointed answers** 202 100%

Source: Research Data, 2012

Table No.4.7 (for weaknesses) shows that 52 responses (26%) pointed that error in data entry can be reflected in auditing findings this being weakness which may not be found in manual system of auditing, 62 responses (31%) pointed out that auditing through computers is still inhibited with auditors personal weaknesses and incompetence,49 responses (24%) pointed that lack of qualified, enough and honesty auditors has been the obstacle to the application of auditing through computer at MOH&SW where 39 responses (19%) pointed that auditing through computer allowance of leakage of confidential data to unauthorized official is very certain.
From the findings, responses which said that auditing through computers is still inhibited with auditors personal weaknesses and incompetence and lack of qualified, enough and honesty auditors looked the same and have been pointed out with a total number of 111 respondents (57%) of the total given weaknesses and it has been advocated by Elder et al. (2008) that auditing is the process designed to provide reasonable assurance regarding the achievement of management objectives in the following categories: (1) reliability of financial reporting, (2) effectiveness and efficiency of operations and (3) Compliance with applicable laws and regulation.

They later added that internal control consists of policies of policies and procedure designed to provide management with reasonable assurance that the company achieves its objectives and goals. These policies and procedures are often called Controls, and collectively, they make up an entity’s internal control. This means that the structure of internal control, political, policies and regulations are important things which may make the application of auditing through computer easier and difficult.

Also the findings revealed that the competence and integrity of the persons operating or using the computer in auditing and this is accounted from the point of data entry since what has been computer is what produces output, as
4.6 To assess the effectiveness of auditing through computer at the MOH & SW.

Table No.4.8: What do you think is a most frequent used model of auditing at the MOH & SW?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditing through computer</td>
<td>14</td>
<td>22%</td>
</tr>
<tr>
<td>Manual Auditing System</td>
<td>51</td>
<td>78%</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Table No.4.8 shows that 14 respondents (22%) said that the most frequent used model of auditing is the auditing through computer while 51 respondents (78%) said that the most used is the manual auditing system. These findings revealed that at MOH & SW in a larger quantity manual auditing system was still used rather than auditing through computers.

Figure No.4: A most frequent used model of auditing at the MOH & SW?
Table No. 4.9: How effective the auditing through computer is at the MOHSW?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Effective</td>
<td>39</td>
<td>60%</td>
</tr>
<tr>
<td>Less Effective</td>
<td>9</td>
<td>14%</td>
</tr>
<tr>
<td>Not Effective</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Some how effective</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Non of the above.</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Figure No. 5: The auditing through computer is at the MOHSW?

Table No.4.9 shows that 5 responses (8%) said that auditing through computer at MOH&SW is very effective, 39 responses (60%) said is effective, 9 responses
(14%) said is less effective, 4 said it was not effective, 5 responses (8%) said it was somehow effective while 3 responses (4%) there was no any fitted their thoughts.

From the findings show that the auditing through computer at MOH&SW was effective, though findings from the same sample show that the auditing at MOH&SW was conducted partly through computer and manual system. Since the main objective of this study was only to assess the effectiveness of auditing through computer at MOH&SW regardless in which quantity it has been done

Table No.4.10: Is there competent Auditors who can audit through computers?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, But not enough</td>
<td>26</td>
<td>40%</td>
</tr>
<tr>
<td>Yes but not with require Knowledge</td>
<td>19</td>
<td>29%</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>I do not know</td>
<td>17</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012
Table No.4.10 show that 26 responses (40%) said that there is, but not enough competent auditors at MOH & SW who can audit through computers, 19 responses (29%) yes, there is competent auditors but not with required knowledge where 3 responses said there was no competent auditors at MOH & SW while 17 responses (26%) they did not know if there was competent auditors or not.

To recommend areas of improvements in auditing through computer at the MOH&SW.
Table No.4.11: What area of auditing through computer do you think need Improvement?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal control systems</td>
<td>29</td>
<td>45%</td>
</tr>
<tr>
<td>Data entry points</td>
<td>14</td>
<td>21%</td>
</tr>
<tr>
<td>Data access points</td>
<td>11</td>
<td>17%</td>
</tr>
<tr>
<td>Training of auditors in CAATS</td>
<td>8</td>
<td>12%</td>
</tr>
<tr>
<td>Frequent change of passwords</td>
<td>3</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data, 2012

Figure No.7: Area of auditing through computer do you think need improvement?

Table No.4.11 shows that 29 respondents (45%) said that one area which needs improvement is internal control system, 14 respondents (21%) said the area of data entry points need improvement, 11 responses(17%) said data access points need improvement, 8 respondents (12%) said that auditors training in CAATs is also needed while 3 respondents said that there must be frequent changes of passwords.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
The purpose of this study was to examine the roles of internal Audit Functions at Judiciary of Tanzania The case study of the Ministry of Health and Social Welfare, Headquarters, Dar es Salaam. This part also gives conclusion and recommendations.

5.2 General Summary
The present study was a case study that examined the effectiveness of auditing through computer at MOH&SW. The study was guided by four research objectives. The study expected to contribute to the existing body of knowledge on the effectiveness of auditing through computer. The study targeted a sample of 80 respondents but only 65 responded and used as the base for this study. Findings from were collected from the study area using tools like interviews, documentary review, observation and questionnaires. The study is to be submitted as a partial fulfillment of the requirement for the award of A Masters of science in Finance and Accounting degree of the Mzumbe University.

5.3 Summary of Findings
5.3.1 To examine the effectiveness of auditing through computer at the Ministry of Health and Social Welfare, Headquarters Dar es Salaam.
Therefore, from the data obtained from the responded sample it means that those who agreed with the proposed answer that the MOH&SW has been using both; CAATs and manual auditing systems, though the CAATs is used at minimal level but was still done effectively, nevertheless findings showed that the effectiveness of auditing through computer depends more on the skills and integrity of the auditor or computer operator, internal control mechanism, policies, political and internal procedures of the ministry may hinder the auditing through computer.

This was also by Settler (1982), said; “garbage in garbage out” a computer proverb has been used to put emphasis on this. It stresses that the, accuracy and quality
product of the computer depends on the quality and accuracy of the data input in it. From the above explanations we deduce another component of the computer system called human-ware or org-ware. That’s the human being as part of the computer system. This means that for the effective auditing through computer to be in place the person to operate it cannot be isolated.

5.3.2 To assess the Ministry strength and weakness if any in applying auditing through computer

Findings showed that 61 responses (28%) pointed that one of the strengths of using computer in auditing is that larger data can be audited at a shorter time compare to auditing through papers, 59 responses (27%) pointed out that computer facilitates speed and accuracy in processing data is higher compare to manual system, 58 responses (27%) pointed out that the sorting of large volume of data is easier while 39 responses (18%) pointed out that It is easier to find any faulty or fraud urgently than using the manual system.

Also these responses are witnessed by Copnell (1999) saying that; Electronic auditing or e-auditing is a computer assisted auditing that uses electronic records to complete all audit work. If you use a computer to record your business activities and maintain this data electronically, you are a candidate for an electronic audit. Precisely, is the application of computer in the audit activities? The accounting systems have undergone dramatic changes in recent years, out of the major changes is the increasingly use of the machines for instance, electronic data processing machine, that is, computer. The computer technology has revolutionized the technique of data processing.

Findings showed that 52 responses (26%) pointed that error in data entry can be reflected in auditing findings this being weakness which may not be found in manual system of auditing, 62 responses (31%) pointed out that auditing through computers is still inhibited with auditors personal weaknesses and incompetence, 49 responses (24%) pointed that lack of qualified, enough and honesty auditors has been the obstacle to the application of auditing through computer at MOH&SW where 39
responses (19%) pointed that auditing through computer allowance of leakage of confidential data to unauthorized official is very certain.

In addition, responses which said that auditing through computers is still inhibited with auditors’ personal weaknesses and incompetence and lack of qualified, enough and honesty auditors looked the same and have been pointed out with a total number of 111 respondents (57%) of the total given weaknesses and it has been advocated by Elder et al. (2008) that auditing is the process designed to provide reasonable assurance regarding the achievement of management objectives in the following categories: (1) reliability of financial reporting, (2) effectiveness and efficiency of operations and (3) Compliance with applicable laws and regulation. They later added that internal control consists of policies of policies and procedure designed to provide management with reasonable assurance that the company achieves its objectives and goals. These policies and procedures are often called Controls, and collectively, they make up an entity’s internal control. This means that the structure of internal control, political, policies and regulations are important things which may make the application of auditing through computer easier and difficult.

Also the findings revealed that the competence and integrity of the persons operating or using the computer in auditing and this is accounted from the point of data entry since what has been put in the computer is what will produce the output as garbage in garbage out proverb refers.

5.3.3 To recommend areas of improvements in auditing through computer at the MOH & SW

From the study, findings show that 29 respondents (45%) said that one area which needs improvement is internal control system, 14 respondents (21%) said the area of data entry points need improvement, 11 responses (17%) said data access points need improvement, 8 respondents (12%) said that auditors training in CAATs is also needed while 3 respondents said that there must be frequent changes of passwords. According to Kaplan (2006); Internal Auditing is an independent activity established by management to examine and evaluate organization’s risk management and system
of control, and to make recommendations for the achievement of company objectives.

The findings also revealed that for the good functioning of the auditing through computer, generally there must be a general interaction of each other control to carter for effective auditing through computer at MOH & SW.

5.4 Conclusion

Having passed, through the study findings, it is concluded that to a greater extent that the Ministry of Health and social Welfare was not practicing fully auditing through computer hence the manual auditing systems was still done in a greater portion of the auditing works. But also the partly which was done through computer was executed effectively, though few competent at the Ministry. Some auditors at the MOH & SW were trained in using CAATs. Also areas for improvement as suggested due to obtained findings include linkage of internal controls, policies and procedures also should be regulated to suit the application of auditing through computer at MOH & SW.

5.5 Recommendation

Although the research revealed that there was no sufficient trained and enough auditors thus the following are recommended

i) Auditors must be equipped with the skills of using CAATs.

ii) Internal control system should be regulated to adopt a fully auditing through computer system.

iii) Passwords for those in the system(chain of information) should be changed timely to safeguard the system and information.

iv) ICT environment, the ministry should be prepared to adopt the coming ICT and modern soft wares in auditing. This is mandatory as the ministry will not operate in isolation.
5.6 Areas for Further Studies

The researcher thought and highlight on the area in which further study in relation to CAATs can be conducted in other organizations to compare the situations. Barriers to effective and efficient auditing through computer or effectiveness of CAATs to an organization auditing performance.
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APPENDIX 1

DATA GATHERING: QUESTIONAIRE

Dear Respondents,

You are kindly requested to answer the set of questions below giving relevant details. They are purely meant for academic purpose. Your contribution toward smooth realization of the intended purpose is highly appreciated and inconveniences that may arise highly regretted too. The study is conducted at the Ministry of Health and Social Welfare headquarters Dar es Salaam, the topic being “Effectiveness of Auditing in computerized environment in Public sector”.

Your identity as a respondent will remain anonymous and you are highly appreciated in advance for any information you will give. I also abide to confidentiality and accuracy of information before and after being in my hands.

DAFROZA SENGITYUMVA NDIIKA
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Questionnaires
General Information of the Respondent:
1. Please tick the most appropriate choice for the following:-
   a) Sex: Male ( ) Female ( )
   b) Age 18-25 ( )
   c) Age 26-35 ( )
   d) Age 36 and above ( )

2. Level of education:
3. Do you know the meaning of computer assisted auditing techniques?
   a) Yes ( )
   b) No ( )
   c) Some how ( )

2. Are there any differences between auditing through computer and auditing using paper records (manual systems)?
   a) Yes, one uses auditing software and computer needed records and the later uses paper records. ( )
   b) Yes, one uses computer devices and the later uses papers ( )
   c) Yes auditing through computer uses mouse, keyboard, monitor and CPU while the later uses pen and records on papers. ( )
   d) Yes, one uses electronic stored data and the later uses manual stored data.

3. How the auditing through computer is applied at the MOHSW
   a) ..............................................................
   b) ..............................................................
   c) ..............................................................
   d) ..............................................................

4. What do you understand/know is/are the strength(es) and weakness(es) of using computer in auditing? (Mentions at least 5 for each).

   STRENGTHES
   a) ................................................................
   b) ................................................................
   c) ................................................................
   d) ................................................................

WEAKNESSES
Error in data entry can be reflected in findings
a) ...............................................................................................................................

b) ...............................................................................................................................

c) ...............................................................................................................................

5. How effective the auditing through computer is at the MOHSW?
   a) Very effective
   b) Effective
   c) Less Effective
   d) Not Effective
   e) Some how effective
   f) Non of the above.

6. What areas in auditing through computer do you think need improvement(s)?
   a) ...............................................................................................................................
   b) ...............................................................................................................................
   c) ...............................................................................................................................
   d) ...............................................................................................................................

7. What do you think is a most frequent used model of auditing at the MOHSW?
   a) ...............................................................................................................................
   b) ...............................................................................................................................

8. Is there competent Auditors who can audit through computers?
   a) Yes, But not enough
   b) Yes but not with require computer
   c) No
   d) I do not know

God Bless you all!