

MZUMBE UNIVERSITY

SCHOOL OF BUSINESS

**AN ASSESSMENT OF USE OF ACCOUNTING INFORMATION
SYSTEM IN DECISION MAKING FOR PUBLIC SECTOR: THE
CASE OF AGRICULTURAL RESEARCH INSTITUTE UYOLE.**

By

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**A Dissertation Submitted in Partial Fulfillment of the Requirements for the
Award of Master of Science in Accounting and Finance (Msc. A&F) of
Mzumbe University**

2013

DECLARATION

AND

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I, Jane Watson do here by declare that this dissertation is my own work and has not yet been submitted for a degree in any other University or Higher Learning Institution.

Signature.....

Date

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DEDICATION

This work is dedicated to my precious parents Mr. and Mrs. Watson Mtinde who praying for me without ceasing and advise me to reach the target. Thanks my parents!

ACKNOWLEDGEMENT

First of all, I would like to thank God almighty for protection and guidness gave me and all who played part in the completion of the thesis. Glory be to God!

I have much honor to give my appreciation to any one known or unknown who in one or another contributed to the preparation of this study. My primary obligation is to the Department of Accounting and Finance Mzumbe University and the Management of ARI-UYOLE. Without the cooperation of the two organizations, the completion of this study would have never been possible.

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LIST OF ACRONOMYS

AIS----- Accounting Information System

ARI-UYOLE - Agricultural Research Institute Uyole

DRD-----Director for Research and Development

DRT-----Directorate of Research and Training

GAAP--- Generally Accepted Accounting Principles

IFRS--- International Financial Reporting Standards

MAFC---Ministry of Agriculture, Food, Security and Cooperatives

MLD-----Ministry of Livestock Development

NRD-----Natural Resources Department

SHZ-----Southern Highland Zone

TPS -----Transaction Processing System

UAC-----Uyole Agricultural Centre

ZDRD---Zonal Director Research and Development

ZIELO---Zonal Information and Extension Liaison Officer

ZIELU---Zonal Information Extension Linkage Unit

ZRC-----Zonal Research Coordinator

ABSTRACT

This study of Assessment of use of Accounting Information System in decision making for the public sector is conducted in Agricultural Research Institute UYOLE (ARI-UYOLE) in Mbeya region.

The main objective was to examine the effectiveness of the use of Accounting Information System in decision making for ARI-UYOLE as a case study. The research methodologies employed included interviews by the use of unstructured questions, which directed mainly to staff of ARI-UYOLE. The second method involved structured questions in a written form (questionnaires) to capture the required data. Thirdly, observation method was applied and in this case the researcher physically visited ARI-UYOLE and at projects sites of the respondents and this took three consecutively, months to accomplish the task. Lastly documental source were used to obtain mostly the secondary data.

The findings from the study revealed that the staff skills lack necessary knowledge for producing qualitative information which leads the interpretation of financial information for decision making to be difficult to some users. Also the technology used to process the information is outdated and it takes too long to receive relevant information and wanted the researcher to find the alternative ways to shorten the situation.

So the study proposed the following recommendations to ARI-UYOLE:-Most of staffs are to be retained for proper effectiveness of Accounting Information System so as to produce the qualitative information. Also the technology used should be relevant to enable the users to reduce the cycle time of Accounting Information System process so as to assist the decision making in ARI-UYOLE.

TABLE OF CONTENT	PAGES
DECLARATION.....	i
COPYRIGHT	i
DEDICATION.....	ii
ACKNOWLEDGEMENT	iii
LIST OF ACRONOMYS	iv
ABSTRACT	v
TABLE OF CONTENT	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF APPENDICES	xi
 CHAPTER ONE	 1
INTRODUCTION AND BACKGROUND INFORMATION	1
1.1 Historical Background of ARI-UYOLE:	1
1.1.1 Introduction:.....	1
1.1.2 Vision and Mission:	1
1.1.3 Southern Highlands Zones (SHZ):	2
1.1.4 Vision and Mandate:	3
1.1.5 Governance Structure:	4
1.1.6 Research Fund Allocation:.....	4
1.1.7 Management of ARI-UYOLE:	5
1.1.8 Basic functions of ARI-UYOLE:	5
1.2 Background of the Research problem:	5
1.3 Statement of the Research Problem:	7
1.4 Objectives of the Study:	9
1.4.1 Overall objective of the Study:	9
1.4.2 Specific objectives:	9
1.5 Research questions:.....	9
1.6 Significance of the study:.....	10
1.7 Scope and Limitation of the study:	10

CHAPTER TWO	11
LITERATURE REVIEW.....	11
2.1 Introduction:	11
2.2 Theoretical Literature review:	11
2.2.1 Theoretical framework of accounting, information and system.	11
2.2.2 Effectiveness or Efficiency use of accounting information system.	20
2.2.3 Measuring the effectiveness use systems of accounting information.	21
2.2.4 Dependent and independent variable:	22
2.2.5 Accounting information system cycle:	23
2.2.6 Computerized or manual Accounting Information System:	24
2.3 Empirical Literature Review.	26
2.4 Analytical Framework.....	28
 CHAPTER THREE	 30
RESEARCH METHODOLOGY	30
3.1 Introduction	30
3.2 Research design:.....	30
3.3 Location of the study:	31
3.4 Units of Inquiry:	31
3.5 Population and Sample:	31
3.6 Sampling Techniques:	32
3.6.1 Random Sampling.....	32
3.6.2 Purposeful Sampling.....	32
3.7 Methods of Data Collection:	33
3.7.1 Primary Data Collection	33
3.7.2 Secondary Data Collection	34
3.8 Data Analysis	34
 CHAPTER FOUR.....	 36
PRESENTATION, DISCUSSION OF THE RESEARCH FINDINGS AND DATA ANALYSIS	36
4.1 Introduction.	36

4.2 Causes of Effective or Ineffective Accounting Information System.	36
4.3 Contribution of effective/ineffective AIS for decision making	37
4.4 Segregation of Duties for effective use of AIS in decision making.....	38
4.5 Importance of effectiveness Accounting Information System for decision making.	39
4.6 Expenditure system in ARI-UYOLE.	39
4.6.1 Purchase system.....	40
4.6.2 Payroll Sub-system.	40
4.7 Conversion system	41
4.7.1 Materials Requirement Planning system (MRP)	41
4.7.2 Cost Accounting System.....	41
4.8 Revenue system in ARI-UYOLE.....	42
4.8.1 Cash and cash equivalent collected and paid.....	42
4.8.2 Invoicing sub-system	44
4.9 Fixed Asset system.....	44
4.10 Effectiveness of ARI-UYOLE Accounting Information system for decision making.	45
4.11 Conclusion on the Use of Accounting Information System for decision making....	47
 CHAPTER FIVE.....	48
CONCLUSION AND RECOMMENDATIONS	48
5.1 Conclusion	48
5.2 Recommendations.....	49
5.2.1 To solve the problem of poor skills of staffs, the study recommends that:	50
5.2.2 To solve the problem of accuracy, timeless and reliability of information usage, the study recommends that:-	50
5.2.3 To solve the problem of poor technology, the study recommends that:-	51
5.3 Recommendations for future Research.	51
REFERENCES.....	52
APPENDICES	54

LIST OF TABLES	Pages
Table 2.1: A comparison of AIS decision making effectiveness evaluation models.....	27
Table 3.1: Samples of Respondents at ARI-UYOLE.....	32
Table 4.1 Contribution of ineffective use of AIS.....	38
Table 4.2: The general level of effectiveness of ARI-UYOLE accounting system.....	45
Table 4.3: Results of AIS Assessment Variables.....	46

LIST OF FIGURES	Pages
Figure 2.1: Structure Of Accounting System.....	16
Figure 2.2: Frame Work Of Accounting Information Sytems	17
Figure 2.3: Activities Of Accounting Information System.....	19
Figure 2.4: Key Variables For Effective AIS.....	22
Figure 2.5: Accounting Information System Cycle	24

LIST OF APPENDICES	Pages
Appendix 1: Questionnaire For Other Departments	54
Appendix II: Questionnaire For Accounts Department	57
Appendix III: Results Of SPSS Statistical Package.....	62
Appendix IV: Results Of Questionnaires To Accounts Staffs.....	65

CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

1.1 Historical Background of ARI-UYOLE:

1.1.1 Introduction:

ARI-UYOLE is a public institution, primarily undertaking agricultural research and development under the MAFC. ARI-UYOLE was founded in 1968 as public institution and in 1976 it became semi-autonomous organization, the UAC which was established by Government Notice No 70 of 1976. The UAC primary functions were research and training for agricultural development which were supported by NORDIC countries namely Norway, Sweden, Finland, Iceland and Denmark. Finland through its development agency, FINNIDA continued its support up to 1992 after other NORDIC countries had phased out in 1986. In July 1993 the government formally dissolved the UAC semi-autonomous status to its present of being one of the public agricultural research and development institution in the MAFC, which caters for the Southern Highland Zone.

1.1.2 Vision and Mission:

Vision; To be zonal Centre of excellence for sustainable provision of services in agricultural research and knowledge of appropriate technologies and information services for farmers and other stakeholders.

Mission; The mission of the institute is to deliver demand-driven agricultural technologies, information services and knowledge to farmers and other stakeholders for increasing agricultural productivity, profitability, competitiveness and suitable use of natural resources in the SHZ. ARI-UYOLE pursues this mission through adaptive collaborative research for development and dissemination of knowledge and technologies, practices and their access mechanisms that help farmers to;

- i) Increased access to developed improved appropriate varieties and their agronomic practices for high productivity and production.

- ii) Increase access to developed appropriate technologies, practices and knowledge for sustainable management of soil, water, nutrients and other environmental resources for high and sustainable agricultural productivity.
- iii) Improve post-harvest handling, processing and utilization of crops and livestock produce.
- iv) Increasing access to developed appropriate mechanized farming practices.
- v) Accelerate their socio-economic development by police inform, creating mechanism for access to products, knowledge and information for the management of crops and livestock and access to produce markets.
- vi) Strengthen their linkages and rapport with research and extension services.

1.1.3 Southern Highlands Zones (SHZ):

The SHZ of Tanzania is situated between 7 to 9 South and 30 to 38 East. It comprises of six administrative regions which are Mbeya, Ruvuma, Iringa, Rukwa and two recently established regions, Njombe and Katavi from former Iringa and Rukwa respectively. These administrative regions are currently composed of 26-administrative districts, which together occupy an area of 245,000 kilometer square (28.5% of mainland Tanzania). Projecting from 2002 national census; the zone has an estimated population of about 8 million today, over 80% of households derive their livelihoods from agriculture based activities.

The zone is very diverse in terms of topography, weather, soils and farming systems. The altitude ranges from 400 to 3000 meters above sea level which has a direct influence on both climate and rainfall. The annual rainfall ranges from 600 mm (in some parts) to over 2600mm on the mountains and along lake Nyasa. The climate varies from tropical to October/November through April/May. The zone is potentially a productive area for crops and livestock enterprises, most soils are well drained and generally fairly heavy but tend to be acidic with low to medium levels of nutrients and low organic contents. With present soil status, in most areas soils respond favorably to application of mineral fertilizers.

1.1.4 Vision and Mandate:

The vision of the zone is to improve farmers' incomes in the Southern Highland through significant increase in crop and livestock production and to ensure sustainable management of natural resources.

ARI-UYOLE works in close collaboration with a sister institution, under the MLD, which conducts research for livestock production and development. Major collaborative areas with MLD research are socio-economic studies and natural resources management for integrated management of crop-livestock-environment towards sustainable agricultural development

1.1.5 Governance Structure:

ARI-UYOLE is led by ZDRD, who directly reports to the DRD in MAFC head office, who in turn reports and advises the permanent secretary of the MAFC on all matters related to agricultural research and development. The ZDRD is technically assisted by ZRC, who in turn is assisted by three heads of research programs, namely; Crop research program [maize, rice, wheat, root, and tubers, horticulture, pyrethrum, grain legumes, oil seeds plant protection], Special Research Program [soil and water, laboratories, agro-forestry, agricultural mechanization, food processing and post-harvest research], socio-economic research, research-extension liaison and farm operations units. Crop research has 8-sub-programs and special research has 5-sub-programs. Sub-programs are headed by scientists, who report directly to program heads. The FOU and ZIELU are responsible for technology verification, transfer and knowledge dissemination, they report to ZDRD through ZRC.

In addition, ARI-UYOLE has out-reached sub-stations for adapting technologies and to take research services close to the farming communities in the SHZ. Each sub-station is located in a major agro-ecological zone of the SHZ. Sub-stations are headed by station in-charge at least with certificate in agricultural sciences. The sub-station heads are coordinated by the sub-station coordinator, at the zonal headquarters, who in turn reports to ZRC. There is cross-cutting section of personnel and administration, which assist the ZDRD in management of human and physical resources. The institute has a finance department, which assist ZDRD to handle financial resources management and procurement.

1.1.6 Research Fund Allocation

The Government is the main source of research funds. Funds for Crop research, special research, Socio-Economic research, Monitoring and Evaluation and Research extension-Farmer Linkages are allocated by the Directorate of Research and Training (DRT) under the Ministry of Agriculture, Food security and Cooperatives (MAFC).

Most of the planned projects are being implemented albeit not very smoothly due to funds limitation. About 32% of the implemented projects are carried out on-farm compared to other years where more than 60% of the projects were done on-farm.

1.1.7 Management of ARI-UYOLE:

The top most leader at this is the Zonal Director (ZD) .There are also the assistances of the Zonal Director and these are heads of departments. These staffs will report direct to the Zonal Director on all matters concerning their departments and will participate in Institute meetings for instances standing committee, institute management team meeting. The essence of having these staffs reporting directly to Zonal Director aims at enhancing supervision and control in implementing both long-term and short- term activities.

1.1.8 Basic functions of ARI-UYOLE:

The basic functions of ARI-UYOLE are as follows:-

- i) To minimize incidence of diseases and pests of both livestock and crops.
- ii) To improve husbandry and post-harvest practices for crop and livestock.
- iii) To develop and introduce appropriate materials of high genetic potential for crops and livestock.
- iv) To strengthen research-extension farmer linkage.

The research implemented is client oriented and demand driven with a focus on gender sensitive issues. Furthermore, participatory research methods are used and attention given to dominating farming system and agro-ecological zones.

1.2 Background of the Research problem:

According to International Financial Reporting Standards (IFRS) the qualities of financial information includes; understandability, relevance, materiality, reliability, faithfully representation, commercial substance over legal form, neutrality, completeness and comparability.

Almost, accounting procedures may differ from one organization to another depending on the nature of the organization and accounting transactions involved. In many organizations, particularly public organizations, accounting procedures are usually originated by both revenue and expenditure transactions which is usually coded to the respective account.

The accounting system in most Public Organizations experiences significant problems such as abuse of fund, thefts associated with payrolls, Government subsidy and other payments and revenue, which lead to poor quality of information hence inaccuracy of accounting reports; ambiguity of cash flow Which lead to many complaints from users of financial reports including creditors and donors due to inaccuracy and timeliness. This has sometimes caused a number of organizations or projects to fail due to poor reporting, delays and lack of financial accounting transparency since the accounting information system does not allow reports convenience.

In case of ARI-UYOLE, is not different from other Public organizations; the researcher tried to investigate the effectiveness of Accounting Information System. This was enabling the researcher to come up with recommendations for improvement of an accounting system to facilitate effective decision making. The implications of abnormalities mentioned above, are seen as major constraints of effective accounting procedures in number of public organization.

So the research has helped not only the organization of ARI-UYOLE but also other public organizations to design and implement measurement for their effective use of accounting information systems.

1.3 Statement of the Research Problem:

Accounting procedures often lead to an emphasis on what could be called accounting efficiency; ratio of output to input. The problem with this is that even if both input and output are low, efficiency could still be 100%. In fact, an accounting information system could easily be 100% efficient and 0% effective?

Experience reveals that in many public organizations, there are irregularities relating to accounting information system for purpose of assessing performance of respective institution; and sometimes funds are being received and expended without any proper recording in the institution. This is a major reason for most of the public institutions failure to perform and sustain without government subsidy. Due to this weakness in the system, public institutions have been regarded as inefficient and ineffective. Poor accounting information system has made many public organizations to have number of abnormalities such as theft of assets misallocation funds, poor record keeping, employing unqualified staffs, lack of written rules and regulates and procedures. In some occasion the rules and procedures are there but compliance do not exist.

For ARI-UYOLE, the researcher has addressed one major problem now; the ineffective use of accounting information system leads to improper decision making. The parameters of this study were guided by research questions. There are two subsystems of an accounting information system, which are transaction processing and information processing system.

Effectively designed accounting transaction processing system (TPS) was easy to use and would yield such benefits:

- i) Efficient and economical processing of transaction.
- ii) Timely collection and processing of transactions.
- iii) Careful checking of input data and accurate processing of transaction data.
- iv) Thorough security over transaction processing and data storage, as well as over related physical facilities.

- v) Prompt adjustment to changes and growth in processing needs.

An effective designed system for information processing would provide information that is:-

- i) Relevant to the decision under consideration
- ii) Reliable and sufficiently precise
- iii) Concise (avoids overloading the recipient with details)
- iv) Timely (received in time to affect the decision clearly presented)

It seems to be a knowledge gap to most of functional players in public organizations not excluding ARI-UYOLE. There was a concept of thinking that an effective accounting information system was the one that produces financial statements (Balance sheet, Income and Expenditure account and Cash Flow Statements). Furthermore a typical measure of effectiveness of an accounting information system was unqualified audit opinion. The management of ARI-UYOLE was stand-in to look on the achieved results. However, there are no double considerations on whether the results are reliable and accurate, sufficiently, precise, timely, security of accounting information system, carefully checking of input data and concise and timely to affect informed decisions. There was seem to be a failure to understanding of the purpose of audit due to famous that auditors was discover all errors and irregularities. A concept which was not be true because auditors was never bloodhound but only regulators and auditors who uses sampling procedures rather than 100% verification of documents.

Also when making comparison of figures on monthly, quarterly and semi-annually financial reports was normally have number of incompatibility and errors if comparison was made to those generated by the non-financial information. In order to get answer to such questions the researcher has boarded in assessing the effectiveness of Accounting Information System in enhancing decision making.

1.4 Objectives of the Study:

1.4.1 Overall objective of the Study:

The study aimed to examine the effectiveness use of Accounting Information System for decision making in public sector

1.4.2 Specific objectives:

The study attained the following specific objectives:-

- i) To identify the major causes of effective/ineffective use of accounting information system.
- ii) To examine the importance of an effective accounting information system for decision making.
- iii) To establish whether the effective accounting system could contribute to better decision making of the public organization in their performance. To examine the effectiveness of the ARI-UYOLE accounting information system.
- iv) To examine the level of knowledge and skills of various participants in the ARI-UYOLE Accounting Information System for quality decision making.
- v) To examine the knowledge of technology used to process the information in the Accounting Information System of ARI-UYOLE.

1.5 Research questions:

The Study addressed the following research questions:-

- i) What were the major causes of effective or ineffective accounting information system?
- ii) What was the contribution of effective accounting information system for decision making of Public Organization?
- iii) Was ARI-UYOLE accounting information system effective?
- iv) Were the staffs having enough knowledge to produce the quality information for decision making?
- v) Was the technology used to process data relevant to the organization?

1.6 Significance of the study:

In today's competitive world of business having accurate information may be the key factor in distinguishing between the loser and the winner. While in assessing the effectiveness use of Accounting Information System of organization may lead management to make better decisions and as results may have a great effect on the success of the organization.

The research findings help other public institutions and ARI-UYOLE to improve an Accounting Information System and hence the overall decision making mechanism of the institution. The study would act as a tool for training and advice to accounts departments staffs for purpose of preparing the requisite accounting report hence modernize the efforts of public organization in implementation of accounting and budgetary control information.

The study would serve as a guide for future reference for practitioners, scholars and academicians who will be doing research in this area. The study practically used as source of improving the ARI-UYOLE accounting manual so as to keep in step with global technological changes.

1.7 Scope and Limitation of the study:

Due to limited time and financial resources the study is restricted to ARI-UYOLE in Mbeya Region which is taken as case study. Some of the organizations have the policy of confidentiality, there was restriction to the access of some relevant data and in some instances not accessible at all. Also there was delay in obtaining data due to the procedures or process. As such some data that was considered useful could not be available in time to be included in this project.

Hence rely on the inputs of a small sample of ARI-UYOLE. The focus of the study was on effectiveness use of accounting information systems for decision making in public sector organizations. The fact that this study has only covered the ARI-UYOLE may limit any generalization of results to other organizations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction:

This chapter review, what is already said about the topic and to identify goals. It comprises of the theoretical literature review (Theoretical framework of accounting, information and systems); Effectiveness or Efficiency of an accounting system and their measurement; Dependent and independent variable of this study also the part of computerized or manual accounting system (between this system what is most benefit than other) and the Empirical Literature Review.

2.2 Theoretical Literature review:

2.2.1 Theoretical framework of accounting, information and system.

Accounting is defined by the American Institute of Certified Public Accountants (AICPA) as “ the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least of financial character and interpreting the results thereof”. Bhat (2011:1), defined accounting as the process by which the data generated in booking are processed, analyzed and interpreted, to be used as guideline by the management in framing future policies of the business. Records are maintained and updated by the company soon after their occurrence e.g. cashbook, day books, journals, memoranda books. This helps the company ensure that not only all the transactions and events of financial character are recorded, but also they are done in an orderly manner.

Summers (1989:14) defined accounting as a collection of principles and rules that govern the transformation of data into information used in management process. In addition, Moore et al (1980:496) defined accounting as a system for keeping track of financial events of an organization so that the organization may report its financial activities to any interest.

The objectives of accounting are;

- i) To provide information about financial position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions,
- ii) Ascertainment of the results of operation during the accounting period,
- iii) Disclosure of the financial strength as at the end of the period and
- iv) The utilization of the data generated for policy making decisions,

McCredie et al, (1999:4) defined Information as a part of the communication process- which needs to be understood-based on observation of human behavior in the information seeking and sense making process and on the meanings intended and interpreted by the participation. Information is the data that have been shaped into a form that is meaningful and useful to human beings. The transformation is accomplished by a system consisting of people, machine and methods. In addition, accounting system should provide information for basis for financial and economic decisions.

Bhat (2011:25) Accounting information is simply the means by which we measure and communicate economic events. Whether you manage a business, make investments or monitor how you receive and spend your money, you are working with accounting concepts and accounting information. Accounting information is useful in facilitating informed decision making that include: planning, financing, investing, directing and controlling. Also it is useful in identifying and assessing the financial consequences of various organization decisions.

Information has no value in itself; its value derives from improvements in the decisions, which are taken based upon the information. To enhance the value, information must be capable of being used. Accounting information must be Accurate, Complete, Cost-beneficial, User-targeted, Relevant, Adaptable, Timely and Easy to use (ACCURATE).

External users like investors and creditors would like to rely on financial accounting information without the fear that the management of the reporting organization has altered the information to make the company's performance look better than what it

actually was. Internal users, i.e., the Management, would also like to be sure that internally generated information is free from bias that might favour one outcome over another and does not hide the true picture. Accounting information must have integrity (the term integrity is used to represent completeness, unbroken, unbiased, sound, honest and sincere information) because the information is very crucial to the individuals who rely on it for making important decisions. The integrity of accounting information is enhanced in three primary ways:

- i) Institutional features add significantly to the integrity of accounting information. These features include standards for the preparation of accounting information, an internal control structure and audits of financial statements. An audit is an investigation of a company's financial statements and is designed to determine the fairness of the reports. In Tanzania, only Chartered Accountants can carry out an external audit. In auditing financial statements, generally accepted accounting principles are the standard by which the statements are judged. The Companies Act, 2002 provides several guidelines for companies to follow when it comes to recording and reporting information.
- ii) Several professional accounting organizations play unique roles in adding to the integrity of accounting information. These include The South African Institute of Chartered Accountants (SAICA) and the National Board of Accountants and Auditors (NBAA) Tanzania. The South African Institute of Chartered Accountants (SAICA) has set-up an Accounting Standards Board, which frames the accounting standards. Besides this there are guidance notes.
- iii) Personal competence, judgment and ethical behavior of professional accountants. Perhaps the most important of above three is the third point, because whatever be the guidelines, human beings can still find loopholes they can take advantage of. All these to be a fair representation of information. To help the companies take care of special situations a lot of freedom is provided in the accounting standards. A lot of companies exploit this freedom to disguise the actual performance of the company. Although an auditor's report is there to point out

any significant deviations from the norms and is a part of the annual report, how much justice they are able to do to their tasks is doubtful.

Hall (1998:5) defines system as a group of two or more interrelated components or subsystems that serve a common purpose and information system is the set of formal procedures by which data are collected, processed into information and distributed to users or is a set of interrelated components working together to collect, process store and disseminate data to support decision making, coordination control analysis and visualization in an organization. Even when each component is well designed, efficient and simple, the system will malfunction if the components do not work together. The change in one component may affect other component. Lee ,(1989) defined system as a combination of elements that include all or some of the following objective, inputs, outputs, processes, controls and other internal relationship and a boundary with the rest of the universe. A system is a set of interrelated components that must work together to achieve some common purpose.

The information system accepts inputs called transactions which are converted through various processes into output information that goes to users.

Herbert et el, (1987:7) described accounting system as a system which accumulates and measures financial data and converts those data to information that is then communicated and applied by various groups. The users of accounting information include both those within the organization for which the data are gathered and those outside, (examples stockholders, investors, regulatory agencies and the general public).

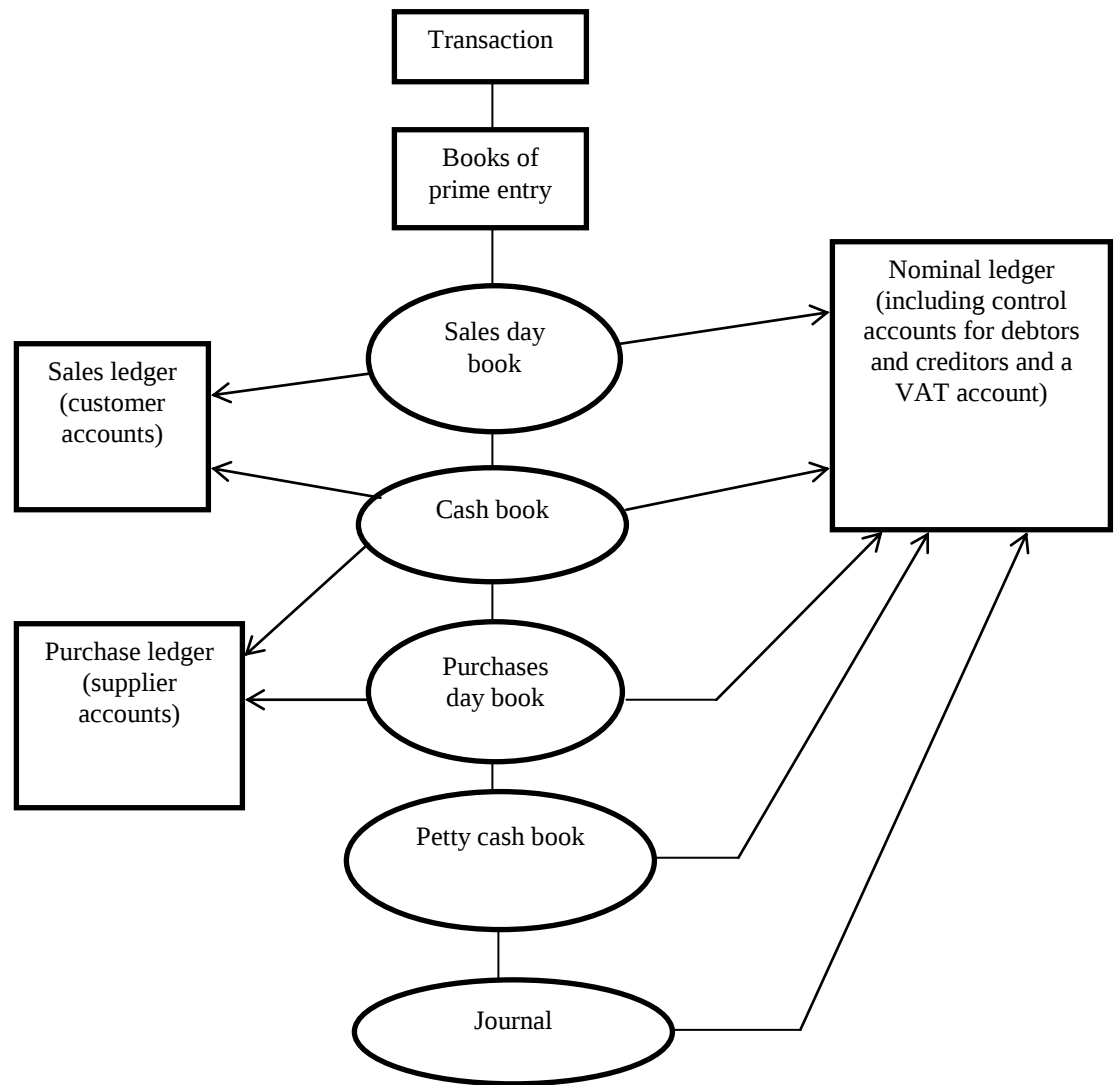
This process of accumulating and measuring financial data includes recording, summarizing and analyzing the data and then reporting and possibly interpreting the information derived from the data. This process is applicable to government and non-governmental organizations to business as well as non-business activities and to profit and not-to-profit entities.

An accounting system consists of personnel, procedures, devices and records used by an organization which helps in development and structure of accounting information and communicating this information to decision-makers. Design and capabilities of these systems vary greatly from organization to organization. In very small businesses, the accounting systems may consist of little more than a cashbook and a cheque book and maybe an annual interaction with the chartered accountant for filing tax returns. In very large businesses, accounting systems would include computers, expensive ERP software like SAP, highly trained employees and periodic accounting reports that provides the backbone for controlling the daily operations of every department. Still, the basic purpose of the accounting system remains the same; to meet the organizations need for accounting information as efficiently as possible.

An accounting system is used to record details of the economic transactions of a business. There is an originating document or voucher for every transaction. The details are listed initially in a book of prime entry, and subsequently transferred to the double entry accounting system in the ledger. A business must keep a record of transactions involving credit customers and credit suppliers in total and also separate accounts for individual credit customers and suppliers.

Although the system used by businesses can vary in structure, the structure which is most likely to come across is summarized in the following diagram:-

Figure 2.1: STRUCTURE OF ACCOUNTING SYSTEM

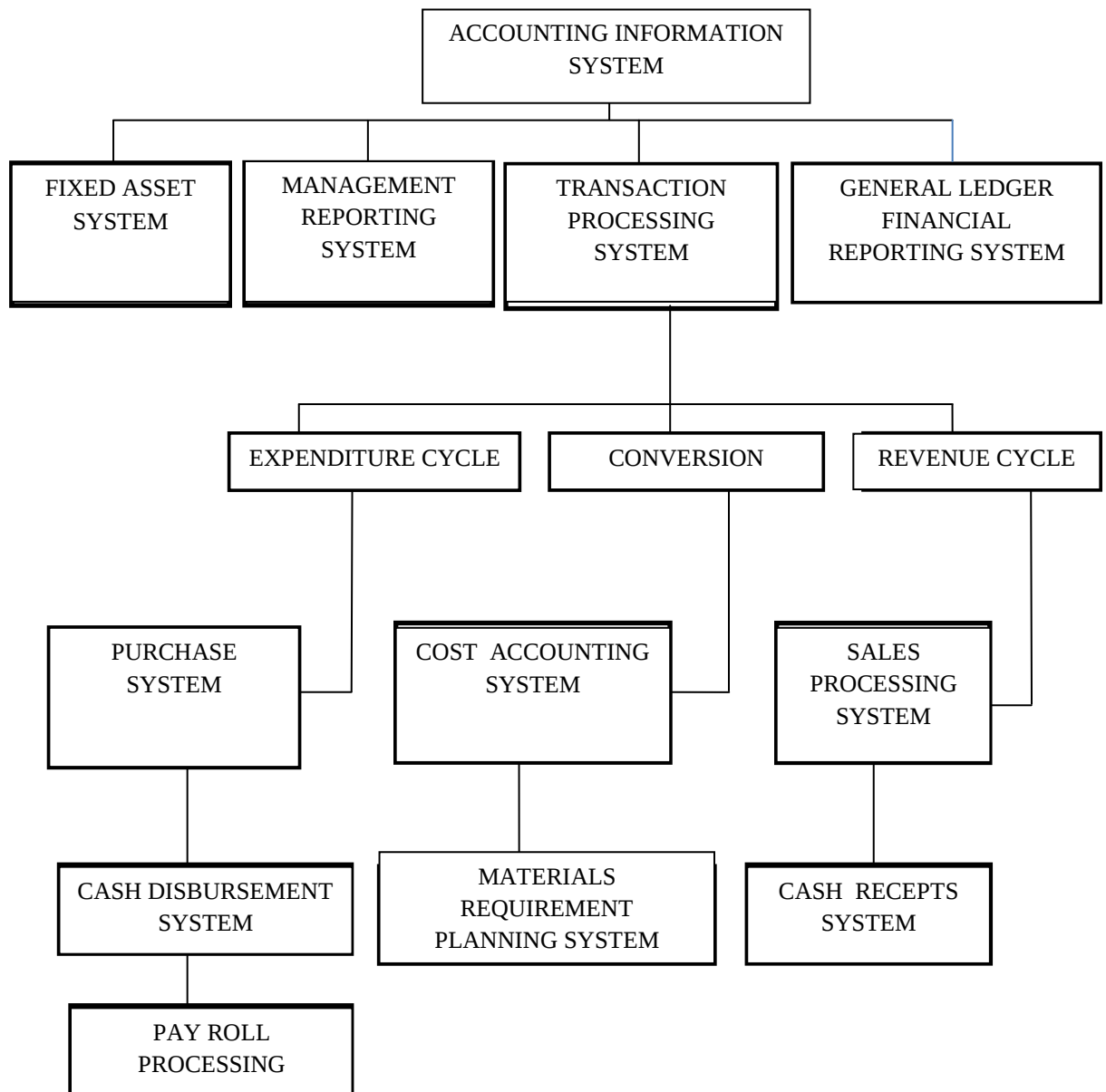


Source: ACA (2007:103)

An accounting system is a set of elements, goals, policies, accounting principles, equipment, personnel, input and outputs, and control that can jointly perform account function. For an accounting system to fulfill its purpose, the information in the accounting reports must be relevant, complete and timely. These attributes are achieved by recording, processing, summarizing and reporting the monetary and other measures of transactions according to Generally Accepted Accounting Principles (GAAP). GAAP provides a general framework for financial accounting objectives, standards, concepts,

assumptions, methods and rule. It is not comparable to the physical laws, where causes lead to definite results. GAAP are flexible to sub-serve the specific needs of an accounting situation and also have undergone alternations and modifications from time to time to suit the changing environment in which these are applied. The accounting information system can be easily described using a chart below;

Figure 2.2: FRAME WORK OF ACCOUNTING INFORMATION SYTEMS.



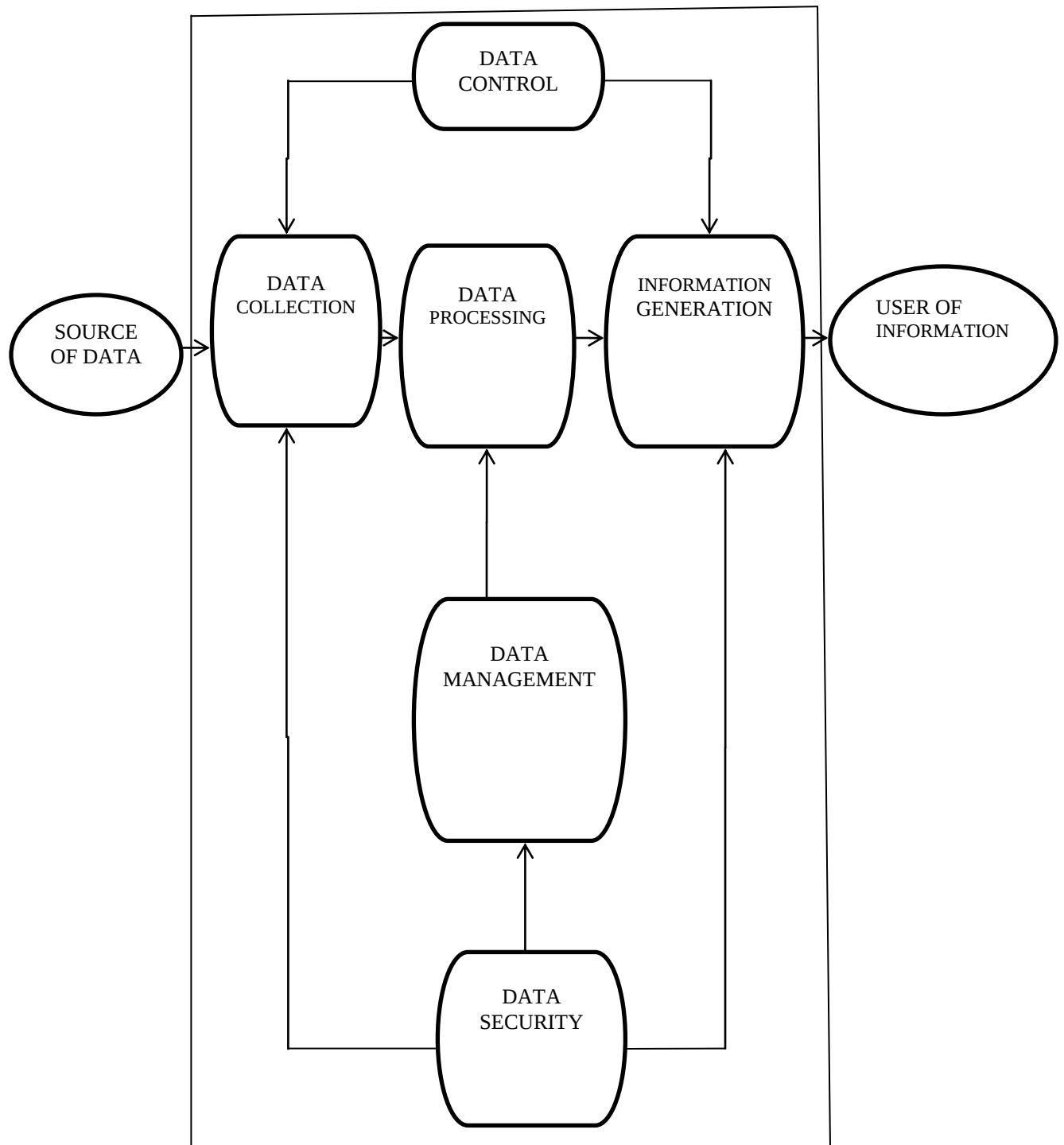
Source: Hall (1998:7)

Management Information System (MIS) is the information system at the management level of an organization that serve the functions of planning, controlling and decision making by providing routine summary and exception report. MIS summarizes and reports on the basic operation of the company. The basic transaction data from Transaction Processing System (TPS) are compressed and are usually presented in long reports that are produced on regular schedule. They transforms transaction level data from inventory, production and accounting into MIS files that are used to provide managers reports. MIS usually serve managers interested in weekly, monthly and yearly results that are known well in advance.

The management, accountants and auditors of public firms have a legal responsibility for the design, operation control and audit of Accounting Information System applications that impact the financial statements. Hall (1998) has identified the need to have an Accounting Information System (AIS) for decision making rather than Management Information System (MIS). Even though naturally, MIS applications are also important to the enterprise, otherwise they should not have been implemented.

The major activities of an Accounting Information System can be identified in the following diagram:-

Figure 2.3: ACTIVITIES OF ACCOUNTING INFORMATION SYSTEM.



Source: Evanston (1971:90)

2.2.2 Effectiveness or Efficiency use of accounting information system.

The researcher decides to measure the effectiveness use of an accounting system rather than efficiency use of AIS due to empirical literature review described below:-

Efficiency is the ratio between output and input for a particular task, regardless whether the task itself is the right task to perform whereas effectiveness is the extent to which a system accomplishes the right goals (Wesley, 199:52).

Griffin (1990:101) defined efficiency as to involve using resources wisely and without waste. Effectiveness is doing the right things. Given the interactions between the organization and their environments, it follows that effectiveness is related to how well an organization understands, reacts to and influences its environment.

Kenneth (2003) explains effectiveness as doing the right things while efficiency means doing things right. Effectiveness is the degree to which an organization realizes its goals (1990). It is the ability of person, function or organization to which accomplish a given goal, purpose or mission, while efficiency is the ability of a person, function or organization to maximize productivity with the least amount of effort, time, money or other resources.

Difference between the Effectiveness and Efficiency

- i) Effectiveness does the right things while Efficiency does things rights.
- ii) Effectiveness produces creative alternatives while Efficiency solves the problems.
- iii) Effectiveness optimizes the resources utilization while Efficiency safeguards the resources.
- iv) Effectiveness obtains result while efficiency follows duties.
- v) Effectiveness increases profit while Efficiency lowers cost.

Reddin (1989:5) explains accounting procedures often lead to an emphasis on what could be called accountants efficiency: ratio of output to input. The problem with this is that even if both input and output are low, efficiency could still be 100%. In fact accounting system could easily be 100% efficient and 0% effective.

Accounting description without objective standards of output associated with them can lead to the maintenance of an information system, which is not contributing to an organization in any useful way.

2.2.3 Measuring the effectiveness use systems of accounting information.

Robbins (1990) defined effectiveness as the ability of functions or organization to accomplish a given goal, purpose or mission, while efficiency is the ability of a person, function, or organization to maximize productivity with the least amount of effort, time, money or other resources. Briefly, effectiveness means doing the right things, whereas efficiency means doing things right Kenneth et al (2003).

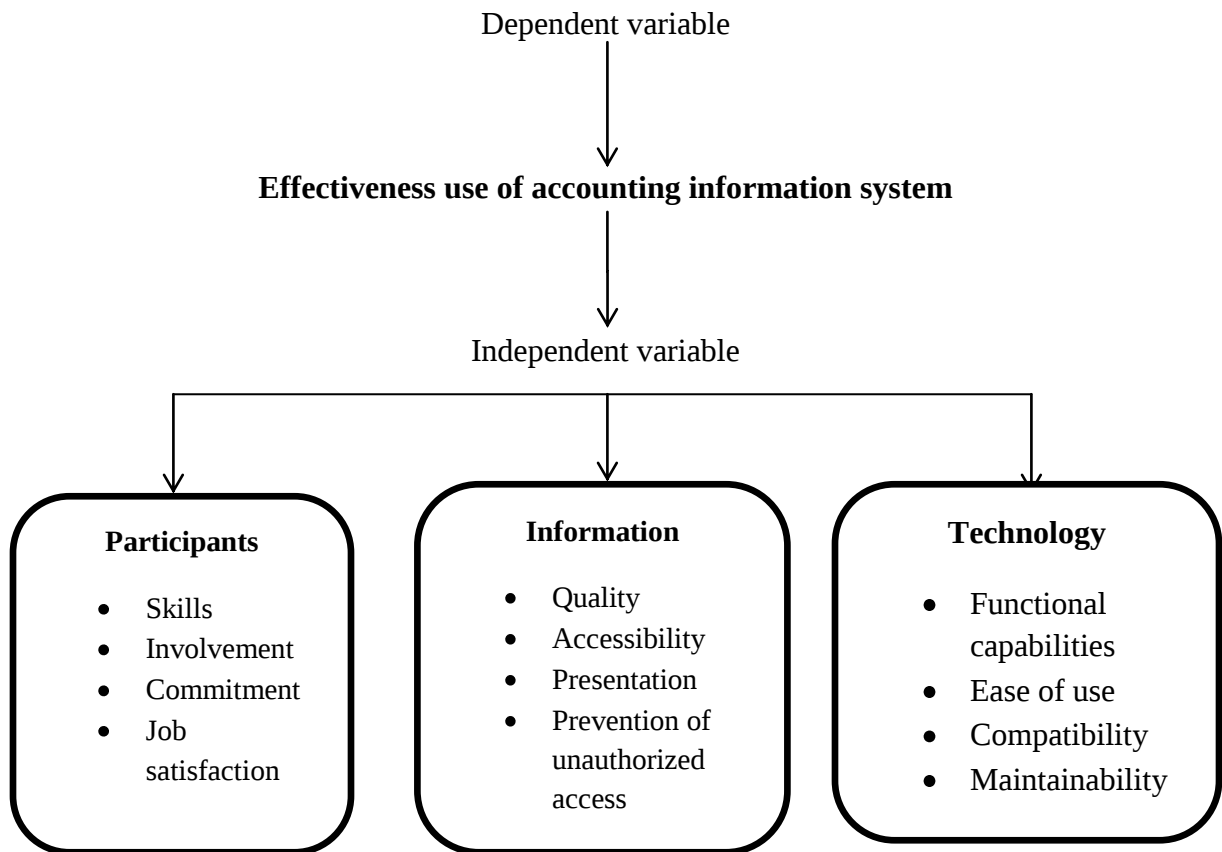
There are many measures of effectiveness of AIS for decision making. For example Summers (1989) identified performance reports as one of the way of assessing the effectiveness of accounting information system for purpose of decision making. Performance reports are statement for internal use within the business; they compare expected and actual results of operations for all or part of an organization. Because performance reports incorporate the budget as the source of expected results, they are effective only to extent that the base is based on realistic plans, policies and contains achievable goals. When the expected results in such budget are combined with actual results reported by an accounting system and included in performance reports, they give managers information that they can use to appraise and modify their own performance independent of formal review by top management.

2.2.4 Dependent and independent variable:

The dependent variable of this research was the effectiveness use of Accounting Information System and three independent variables which are participants, Information and Technology will be used for decision making to Public sector performance.

Wesley (1998:52) defines effectiveness as to how well operate. He identified some key variables of effectiveness of an accounting information system to include;

Figure 2.4: KEY VARIABLES FOR EFFECTIVE AIS



Source: Wesley (1998:52)

The greater the AIS effectiveness of an organization the higher is the chances that it will be able to make decision with ease. Where various stakeholders know that the organization is having good AIS will increase their level of contribution to the decision making hence increasing organizations performance.

The above variables were chosen because they often direct or indirect impact on work system operations and results. Inadequate performance or an improvement goal in terms of these variables is typical starting point for the analysis of a system.

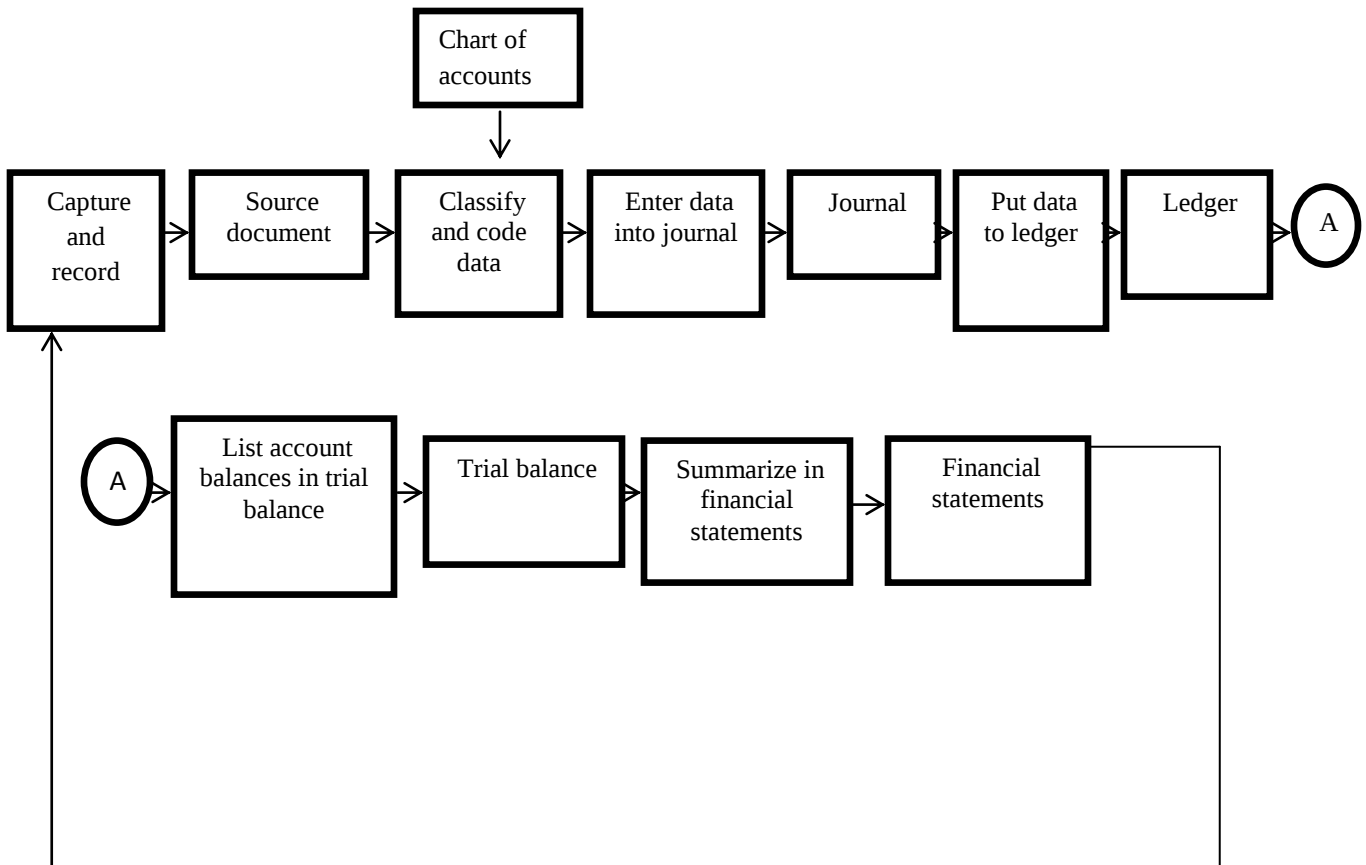
2.2.5 Accounting information system cycle:

Transaction processing systems (TPS) are computerized systems that serve the operational level of the organization. TPS performs and records the daily routine transactions necessary to the conduct of the business. (Or TPS are events necessary to the functioning of the firms. They enable the firm to conduct its daily operations, maintain up-to-date working files and reflect financial results and status). Examples are sales order entry, hotels reservations systems, client information, payroll, employee record keeping and shipping.

Accounting transactions are events, such as the billing for goods shipped that represent exchange having economic value. Other transactions, such as receiving orders and shipping goods, do not themselves involve exchange of value. However, these non-accounting transactions often pave the way for accounting transactions.

Accounting transactions are processed through the key accounting records by means of a procedure called the accounting cycle. The accounting cycle is standardized; essentially the same sequence of steps is employed in all firms as shown hereunder.

Figure 2.5: ACCOUNTING INFORMATION SYSTEM CYCLE



Source: Constructed by the Researcher, 2013

2.2.6 Computerized or manual Accounting Information System:

Increasing number of firms are now using computers to process their accounting data. Until recently computers were used only by larger entities and even those were making very limited use of the computers in processing their transactions. The use of computers was mainly limited to payroll processing. However, computers use has now extended to all other areas of accounting and all sizes of firms. The availability of relatively inexpensive microcomputer systems has made it possible for even the smallest firms to use computers for many accounting transactions. This is a matter of concern to auditors since there will be a radical change in the manner the accounting data is recorded, controlled and audited.

Computer has 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. Unintentional errors can also occur and by the design of computer processing even small errors example in a program can result to material misstatements because they continue systematically without detection.

Apart from the critics of manual systems, Hicks (1999) identified the strength of manual accounting system; as the trial balance is no longer necessary in the sense that the accounts always balance. In a manual system, preparation of the trial balance involves a close review of the books and records.

In ARI-UYOLE the accounting system is being done in both partially that is done by using Computer and Manually. The collection of cash and cash equivalent are done manually but after the collection and the baking process taking place the transactions are record both manually and by using computer in manually transaction are recorded in files. The cash and cash equivalent paid in respect of ARI-UYOLE must be prepaid by using payment voucher which are prepared by using computer. All contents in the payment voucher are recorded in the computer but also after the payment being made a copy of payment voucher is kept in the file for further references.

2.3 Empirical Literature Review.

The evaluation, design and implementation of AIS are quite expensive investment project for most enterprises. Flynn (1992) has found that only 20% information systems were used successfully, while other AIS was neutral or negative this shows an importance for evaluating the AIS effectiveness of ARI-UYOLE and other public organization. Most of models for evaluating presented in scientific publications do not reflect any integrated evaluation of AIS effectiveness.

According to Raupeli (2003) used the monographic, logical analysis and comparison methods to research AIS effective's evaluation models and to determine the criteria and indexes of effectiveness. Most of scientific publications discuss economic models while in practice the implementation of these models is complicated. Raupel (2003) commented that the effectiveness of accounting information system could be considered as successful use of a system, which ensures to meet user's needs. This led to conclude of the effectiveness evaluation models of accounting information systems, provided in scientific publications have the following weakness:

- i) The most provided models allow the evaluation of AIS effectiveness only from technical-economic and social-economic aspect;
- ii) There is no presented universal method for mixing of quantitative and qualitative indexes;
- iii) There is no integrated and practical usage adjusted AIS effectiveness evaluation model which allows all effectiveness evaluation from economic, technical and social aspects contemporaneously.

The result of his research was a summary table for comparisons of models, which can be used for AIS effectiveness evaluation:-

Table 2.1: A comparison of AIS decision making effectiveness evaluation models.

Models	Purpose of usage	Aspects of evaluation	AIS life cycle phases	Measures of indexes
Benefit analysis Nagel K.(1998)	To evaluate benefit of AIS according to its categories of probability.	Economic	In all phases	Quantitative
Value analysis Neumann A.(1998)	To evaluate a value of AIS.	Technical-economic	In phases of choices and exploitation	Qualitative
Picot/Reichvald Picot A., Reichvald R.(1987)	To evaluate the expense and benefit of; local workplace separate AIS subsystems; AIS complex and all enterprise.	Technical-economic	In all phases	1 st level-quantitative. 2,2,4 levels-qualitative
Sassone/Schartz Sassone P.G.(1987)	To evaluate the AIS effectiveness as a benefit, obtained due to structural changes and increase work efficiency.	Social-economic	In all phases	Quantitative
FAOR Schajer G Wofram G.(1986)	To evaluate an effect of AIS for analysis; Potential of information processing technology, increase of work efficiency and benefit from information processing technology implementation.	Technical-economic	In all phases	Quantitative and qualitative

Source: Raupel (2003)

2.4 Analytical Framework.

The concept of Accounting Information System effectiveness is very comprehensive and thus multivariate; hence it will not be possible to study all the variables which came from AIS variety. The variable of interest to this research is the dependent variable of Effectiveness of accounting information system. Three independent variable are used in attempt to explain the variance of use for decision making to public sector performance. These are Participant, Information and Technology.

The greater the AIS effectiveness of an organization the higher is the chances that it will be able to make decision with ease. Where various stakeholders like employees, managers, customers, suppliers and financial institutions know that the organization is having a good AIS will increase their level of contribution to the decision making hence increasing the organizations performance. Ineffective AIS can contribute to tardiness, unfaithful acts such as pilferage, theft, cheating and absenteeism, high production costs due to lack of accounting data in time in competitiveness of firms products and high labour turnover especially employees who had expected to fulfill their individual needs within the organization all to the harm of organizations performance.

The study assumes that the effectiveness of an accounting information system for decision making is a function of skills of participants, accuracy of information and technology. And is presented as follows:-

$$E = f(P, I, T)$$

Where E= Effectiveness of AIS for decision making

f= Function of

P= Participants

I= Information

T= Technology

Thus the use of AIS will be negatively affected if either of the above factors negatively attributes to organization effectiveness. Data collected by various methods will be used to carry on the measurement of effective use of AIS for decision making. Effectiveness

and Efficiency are the major performance measurement of any organization functioning system.

Based on analytical framework provided above and the study, objectives provided under 1.4; the study therefore put forward the following hypothetical statements.

- i) Participants in the Accounting Information System lack necessary knowledge for producing qualitative information for decision making.
- ii) The Accounting Information System of ARI-UYOLE is ineffective and therefore can be relied for use in decision making.
- iii) The technology used to process accounting information is relevant to the nature of activities of ARI-UYOLE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This is the plan for carrying out the research objective. It consist the methodology and procedures, related to data collection, data processing and analysis. It is a presentation of the local and systematic procedures of how research data has to be handled. The areas covered include: Research design, sampling design and procedures, unit of inquiry, data collection methods and data analysis techniques to be employed.

3.2 Research design:

Research design was a plan of action that specifies the type of data to be collected, the method of data collection and how to analyses the collection data. There are three types of research designs, case study design, survey study design, and experimental design. In this study, the case study design applied. The Case study design were chosen as the study deal with one unit only ARI-UYOLE in Mbeya region. This approach was used in order to enable the researcher to gain more insight into the existing situation in organizations as well as to able to reach concrete conclusion and recommendations. Thus why for the purpose of this study a case study design was adopted to get the required information from ARI-UYOLE.

Advantages of a case study design. Generalization is limited and also it was comparatively less expensive and data collection was much more manageable than in other research designs; Help to connect the gap between abstract research and concrete practice by allowing researcher to compare their first hand observation with the quantitative result obtained through other methods; It brings the researcher to an opportunity of understanding complex and uncertainty issued, so leads to extent experience and add powers to what is already known through previous research; A case study design always maintaining the unitary nature of the unit of inquiry.

Disadvantage of a case study design; Case study design involve learning more about the subjects being tested than most researchers would care to know their background. It leads to conflict of interest because a researcher should base on employer or donor interests.

3.3 Location of the study:

The study was conducted in ARI-UYOLE headquarter of Southern Highland Zone Mbeya Tanzania. The research was made and analyzed on the nature and extent of the accounting information system use for decision making hence accessibility of various information.

3.4 Units of Inquiry:

These were the people or things whose characteristics the social researcher tries to observe, describe and explain. They include individuals, a group or social article. So according to this research the units of enquiry were comprised of:-

- i) The office of the Chief Executive
- ii) Finance and Planning Department
- iii) Technical and training department
- iv) Supplies and Administration department
- v) Customers

3.5 Population and Sample:

The study was concentrated on ARI-UYOLE in which the accounting system was working. The study sample was drawn from Chief Executive Office, Finance, Administration and Technical department. In this study, the purposive sampling technique was used to draw a sample from the entire population. The purposive sample has been selected in this study because of researcher's knowledge of the entire population and respective key factor.

3.6 Sampling Techniques:

3.6.1 Random Sampling.

This is also known as chance sampling or probability sampling where each and every item in the population has an equal chance of inclusion in the sample and each one of the possible samples, in case of finite universe, have the same probability of being collected.

Simple random sampling was adopted and respondents were selected from a group of staffs. The respondents were selected from the various individuals; each number was identifying particular individuals in the ARI-UYOLE staff's population. The researcher made pieces of paper and mixed them in a container, then unseeingly picked one piece at a time and depicted pieces that formed a sample.

3.6.2 Purposeful Sampling.

The research was estimated to have 50 people officials who are knowledgeable about ARI-UYOLE activities and who could provide accurate information about the effectiveness of accounting information system. This included the Director, Chief Accountant, Senior Supplies Officer, Accounting Officer and other members from departments.

Table 3.1: Samples of Respondents at ARI-UYOLE

RESPONDENTS	ESTIMATED NUMBER OF RESPONDENTS	ACTUAL NUMBER OF RESPONDENTS	Percentage (%)
Director	1	1	100%
Chief Accountant	1	1	100%
Heads of other departments	12	10	83.3%
Accounting staffs	6	6	100%
Other staffs	30	25	83.3%
TOTAL	50	43	86%

Source: Field Study, 2013.

3.7 Methods of Data Collection:

3.7.1 Primary Data Collection

i) Observation

The field visits were made to the Chief Accountants Office, Cash Office and reconciliation section for the aim of observing accounting data transformation into information. Also to see how the accounting information assists in decision making for the respective departments.

ii) Interviews

This was conducted for seeking clarifications of issues, which were not clear to the researcher and the interviewed. The study was interviewed the Zone Director so as to clarify issues relating to the general functioning of the organization as highlighted in the annual financial and operation reports; the general understanding of the contribution of an Accounting Information System to towards effective decision making and hence improved organization.

A sample of 43 respondents were acquires to provide relevant information for the study ,where purposive sampling used to obtain the target population and then simple random sampling employed to obtained the target sample to be studied. Interview schedule used as instruments for data collection.

iii) Questionnaire

This was conducted for asking different questions concerning the effectiveness of information accounting system the accounting staffs, other staffs of the organization and also the head of the department so as to get the data easily.

The structured questionnaire was contained both open and closed ended questions. Open ended questions which are likely to receive long answers were used because they require the respondents to think and reflect.

Giving opinions and fillings close-ended questions that could be answered with a single word or short phrase were used because they gave facts, also are easy to answer, quickly to respond and keep control of the organization information with questionnaire.

iv) Focus Group Discussion

This was conducted with some of the heads of departments in the ARI-UYOLE management meeting in order to obtain views about ARI-UYOLE Accounting Information System and used to seek opinion on various issues concerning the effectiveness of the same.

3.7.2 Secondary Data Collection

Documentary Research

Secondary data are the data which have already been collected analyzed by someone else .In collecting secondary data, the documentation method was used. This method helped the researcher to be able to get additional information, and clarification of some questions, which were not being fully answered, in the interview; they were used to reduce the degree of reluctance to answer various questions through interview.

Also there are possible weakness of documentary research since some of the data can be confidential which can hinder to fulfill the objective of the research, also some data can be either outdated or exaggerated which can destroy the whole meaning of what is found under research.

In this study the researcher were collected secondary data from reliable sources such as ARI-UYOLE accounting record, Directors report, Auditors report General ledger and Analysis books like vote book.

3.8 Data Analysis

This is the process which involves searching patterns of relationship among data groups. There are two types of data analysis; quantitative data and qualitative data. In this study the data was categories and analyzed in relation to research questions and objectives of the study.

Both qualitative and quantitative data processing techniques was used. Findings were presented in tables, graphs and percentage. Also statistical software SPSS was used to analyze questionnaires frequencies. This approach was adopted because it is simple and easily understandable.

CHAPTER FOUR

PRESENTATION, DISCUSSION OF THE RESEARCH FINDINGS AND DATA ANALYSIS

4.1 Introduction.

This part is intended to disseminate or to show the real practice of the organization in favor of the researcher topic. Moreover, this part provides answers for the basic key research questions raised in the previous part that is part especially the purpose of the researcher study.

The data analyzed include observation, interview, questionnaire and documentary information from ARI operations reports; Data obtained through observation and quotations from interviewees held with ARI employees, Management and other department. The results of the questionnaires were analyzed using SPSS statistical package and attached as appendix III - IV.

The main problem in this study was to assess the effectiveness use of Accounting Information System for decision-making in public sector organization.

4.2 Causes of Effective or Ineffective Accounting Information System.

The accounting system in most public organizations experiences significant problems which lead the accounts recording systems to fails to meet the expectations of users of the financial statement such as investors, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and the general public. Poor Accounting Information System has made many public organizations to have number of irregularities such as theft of assets, misallocation of funds, poor record keeping, employing unqualified staffs, lack of written rules and regulation.

In ARI-UYOLE we observed the following problems which hinder effective of AIS as follows Out of 25 respondents,23 (92%) of the interviewed respondents showed that there is a problem of Untimely issue of reports that hinder the quick decision making;80% of the respondents showed that the Government subsidy and other

payments and revenue are not received on time which leads to poor quality of information hence inaccuracy of accounting financial reports; 50% of the respondents showed that there is Extremely poor reliability of data generated by the accounting system; 50% of the respondents showed that there is Absence of reliable financial planning/budgeting and budgetary control system; 16.7% of the interviewed respondents showed that there is thefts associated with payrolls especially to casual labour which discourage them to work hard. Not only that but also the respondents showed there is uncertainty of cash flows, which lead to many complaints from users of financial reports including creditors and donors due to inaccuracy and timeliness.

Other problems which may lead to ineffective of AIS for decision making are as follows Absence of Cost accounting system where for this organization is not a problem because the accounts department they have that system, Absence of effective control system on critical expenditure, High system losses, High payroll expenses, Misuse of funds.

These problems caused a number of organizations or projects to fail due to poor reporting, delays and lack of financial accounting transparency since the accounting information system does not allow reports accessibility.

4.3 Contribution of effective/ineffective AIS for decision making

From observation we see that 99% of the respondents interviewed showed that the greater the AIS effectiveness of an organization the higher is the chances that it will be able to make decision with ease. Where various stakeholders like employees, managers, customers, suppliers and financial institutions know that the organization who having a good Accounting Information System will increase their level of contribution to the decision making hence increasing the organizations performance.

The general observation showed that ineffective AIS contribute the following as shown in Table 4.1. Out of 43 respondents interviewed; 20 (46.5%) contribute High production costs due to lack of accounting data in time in competitiveness of firms products; 10 (23.3%) contribute High labour turnover especially employees, who had expected to

fulfill individual needs within the organization, all to the detriment of organizations; 5 (11.6%) contribute Unfaithful acts such as pilferage, theft, cheating and absenteeism; Also 8 (18.6%) of the respondents seems said that it contributes Unpunctuality .

Table 4.1 Contribution of ineffective AIS

Outcome	Number	Percentage
High production Cost	20	46.5
High Labour Turnover	10	23.3
Unfaithful	5	11.6
Unpunctuality	8	18.6
Total	43	100.0

Source: Field study, 2013

4.4 Segregation of Duties for effective use of AIS in decision making.

All interviewed respondents it shows that there is separation of duties in receipting, recording reconciling revenue and expenditure (as shown in appendix IV). In ARI-UYOLE there is separation of duties to the staff which is done according to the profession of the staff assigned. Each accountant has got his or her own duties hence no one did the work of another.

For example in case of the cash and cash equivalent collected, those who handle cash and cash equivalent are not involved in accounting and recording of cash and cash equivalent collected. Also in cash and cash equivalent paid in respect of ARI-UYOLE there are those who prepare, approve and authorize as well as those who pay. In Finance and Accounts department in ARI-UYOLE there are different accountants who are responsible for the duties assigned and are not allowed to do duties of other accountants. For instance there are Revenue Accountant, Expenditure Accountant, Final Accountant, Management Accountant and Supplies Officer whereby under those accountants there are assistants who are Revenue collectors, Debts controller, Revenue cashier, Payment cashier, Credits controller, Pre-auditor, Salaries accountant and Store-keeper who's got their responsibilities to their heads of departments.

4.5 Importance of effectiveness Accounting Information System for decision making.

In this study the AIS seems as an united framework within a firm that employs physical resources to transform economic data into financial information for operating and managing firms activities and reporting the firms achievements to interested parties.

The major purposes of AIS are to provide information for operations and legal requirements and information for decision making. The AIS that fully achieves both purposes yields benefits of considerable value. The first of these purposes involves the activity of transaction processing and the second involves the activity of information processing

Transaction Processing System was the concentration area in this study because are computerized systems that serve the operational level of the organization, it performs and records the daily routine transactions necessary to the conduct of the business. The various types of systems in the organization do not work independently; rather, there inter-dependencies between the systems. Transaction Processing Systems are major producer of information that is required by other systems which in turn produce information for further systems. It captures financial transactions in accounting records and provides information about transactions to the users in support of their day to day activities and produces much of raw data which management reports and financial statements are derived. It consist of; Expenditure cycle, Conversion cycle and Revenue cycle.

4.6 Expenditure system in ARI-UYOLE.

This part is made up of sub systems for purchase system, cash disbursement and payroll system, it comprises of buying of materials like fuel, fertilizers, chemicals, property and labour exchange for cash within the ARI-UYOLE operation.

4.6.1 Purchase system.

When goods are received the purchases system records the event by increasing inventory and establishing the account payable to be paid at later date. Normally the departments which need those materials send requests to the purchasing department which prepares the purchase requisition to sellers. The process should follow the Public Procurement Act, 2001 procedures such as obtaining of quotations.

Also at ARI-UYOLE this system identifies the necessity to procure physical operational inventory such as fuel, fertilizers, chemicals, stationeries, office equipment, public building and places the order with the seller. In ARI-UYOLE this process of preparing the purchase requisition to sellers it was too long which discourage many departments to finish their work at right time almost it takes three days.

4.6.2 Payroll Sub-system.

In ARI-UYOLE the system of payroll to casual labour is different as compared to other employee. Every department has indicated the name of their worker who worked in that month and send to accounting department. The cheque was prepared by the authorized accountant and then the cashier go to the bank to take money on behalf of casual labour after that they made payment to the casual-labour cash.

Generally the payroll system is fairly different from traditional system which used to collect usage data for each employee and disburses a paycheck to them. The system works such that every month the government through Ministry of Agriculture, Food, Security and Cooperation (MAFC) disburses a single cheque to ARI-UYOLE having checked the payroll of the respective month. Therefore the salary cheque is received each month and the paychecks are prepared for each employee which later is paid through his/her bank account.

The operation of the system is fairly efficient; the only problem is ambiguity of receipt of the salaries cheque from the Ministry of Agriculture, Food, Security and Cooperation

(MAFC). 66.7% of questionnaires respondents said the system is working moderately (as shown in appendix IV).

4.7 Conversion system

The conversion sub-system usually comprises of cost accounting systems and materials requirement planning system.

4.7.1 Materials Requirement Planning system (MRP)

Materials requirement planning is a computerized approach for coordinating the planning of materials acquisition and production. It involves an estimation of the quantity and timing of finished goods demanded and then uses this to determine the requirements for components/sub-components at each of the prior stages of production. This provides the basis for determining the quantity and timing of purchased materials and bought in components.

The MRP system determines the requirements for each product into its components (or sub-component) and these are further separated into second, third and so on levels of sub-components until at the lowest level of the hierarchy only purchased items (i.e. direct materials) exist.

The aim of MRP is to generate a planned coordinated schedule of materials requirement for a specified time period for each item of material after taking into account schedule receipts, projected target stock levels and items already allocated to production but not yet drawn from stocks. In particular it focuses on machine capacity planning and labour scheduling as well as materials requirement planning.

4.7.2 Cost Accounting System

In this study all the respondents interviewed showed that the organization has no problem of Absence of Cost Accounting System in the accounts department as shown in the Appendix IV. The cost accounting system monitors the flow of cost information related to production. Information produced by this is very helpful for decision making.

It is used for inventory valuation, budgeting control and performance reporting and management decisions as “Make or Buy”.

Through observation it was found that there is no management accounting system within the ARI-UYOLE Accounting Information System. However the seminar of head of department which held in 24-28 November, 2008 at Saint Benedict Center Mbeya directed the management to establish the ABC (Activity Based Costing), which is the component of Management Accounting sub-system, but it has yet to be established. Hence hinders the necessary information for decision making.

4.8 Revenue system in ARI-UYOLE

This part deals with the assessment of the ARI-UYOLE Revenue cycle. Each component of the system is analyzed to determine whether its contribution to ARI-UYOLE decision making is positive or negative. It comprise of cash receipt system and sales processing system. The major concern is to examine the source of revenue in order to determine cycle of cash processing including collection of cash and depositing in the bank and recording of these events in accounts (accounts receivable and cash).

The government is the main source of research funds. Funds for crop research, special research, socio-economic research, monitoring and evaluation and research extension. Farmer linkages are allocated by the Directorate of Research and Training (DRT) under the Ministry of Agriculture, Food and Security (MAFC).

4.8.1 Cash and cash equivalent collected and paid.

In ARI-UYOLE all cash and cash equivalent are collected and received by Revenue collector. All amount collected are listed and accounted daily in order to remitted to the Revenue cashier for daily banking, However, cash and cash equivalent paid or disbursement in respect of ARI-UYOLE should the procedures which are as follows;

- i) The person, group of person, institution or organization if claimed the payment to the sub-treasurer are supposed to submit their claim document to the head of departments where that payment originated.

- ii)** The head of the department concern will authorize that kind of payment to be made then the file with valid document are send to Zonal Director Research Development (ZDRD) for authorization.
- iii)** After being authorized by Zonal Director, the file will move to city Treasury who direct the file to the expenditure accountant.
- iv)** Expenditure accountant direct the file to the payment cashier for payment voucher to be written.
- v)** After being written, payment voucher is signed by the head of department concerning that payment, then return to City Treasury for being authorized and then City Treasury file with documents in order the process to place or not according to the code or department budget balance and passed by pre-auditor.
- vi)** After being passed by pre-auditor, the file send to the cheque writer who cheques according to the amount allowed to be paid.
- vii)** The cheque written is send to the computer room office to be registered serially according to the cheque issued by the research institute.
- viii)** The registered cheque must be sign by the City Treasury and expenditure accountant with stamp of the Zonal Director. The cheque is supposed to be signed by at least two leaders authorized by the management.

As a matter of policy all cash receive by the Revenue system must be banked the same day and by latest the next morning of the day after receipt. From observation and inquiries from accounts staffs showed that it take too long for bank reconciliation to be made so it affects directly decision making on cash management process. Also it makes too difficult for deriving an assurance test on various cash banked.

80% of the interviewed other department as shown in (appendix III) were not impressed by the way the cash are collected and paid in the organization. However they commented some improvement to be made on the way cash is collected and advice to base more on computerized system rather than on manual system which sometimes they

are used. Mechanically, computerization will not only reduce the time they take to be saved but also will facilitate record keeping for the department.

4.8.2 Invoicing sub-system

Invoices are usually sent to other department soon after service. Through observation it has shown a general weakness most of invoices are written by irresponsible officer. The invoices are not pre-numbered and there is no general follow-up mechanism for recovery of cash from customers. The implication here is that the invoices have poor control.

The nature of ARI-UYOLE operation is such that almost 75% of the revenue is for transactions using invoices; the remaining percentage is for cash. Such transaction includes sales of cereal food, fruits, and animals together with their product.

From random sample of invoices raised between July 2012 and May 2013 it has indicated only 50% have paid their dues in time. There is no mechanism for reminders to be made to the invoiced organization. Not only this denies the organization but also most of these records are not added up to the final accounts hence understate revenue by certain percent. This leads to inaccurate decisions on the revenue analysis on the use of financial statements.

From questionnaires it shows 66.7% of accounts staffs are not satisfied with the invoicing system. (see appendix IV).

4.9 Fixed Asset system

This part deals with the purchasing of fixed asset like tractors for cultivation purpose, machines and building. The purchase of fixed asset is prepared by the department which needs that asset for budget approval. Commonly the Director must approve the requirement for purchase of fixed asset. After the necessary quotation has been obtained an order is written in the name of the supplier. The Goods received note and copy of purchase order are used as source of payments in the accounts system.

The asset must be recorded in the respective fixed asset register for purpose of computing depreciation and incorporation of assets in the financial statements.

The questionnaires have indicated that almost 83.3% of accounts staff perceives the system to be moderately (see appendix IV).

4.10 Effectiveness of ARI-UYOLE Accounting Information system for decision making.

In these studies it seems that the general level of effectiveness of ARI-UYOLE Accounting Information System for decision making for the respondents interviewed is shown as follows in the Table 4.2 below. From the table out of 43 respondents interviewed, 12(27.9%) say that Accounting Information System is High, 25(58.1%) say that Accounting Information System is Moderate and 6(14.0%) say that Accounting Information System is Poor.

Table 4.2: The general level of effectiveness of ARI-UYOLE accounting system.

Outcome	Number	Percentage
High	12	27.9
Moderate	25	58.1
Poor	6	14.0
Total	43	100.0

Source: Field Study, 2013

The purpose of this study was to assess the effectiveness use of the Accounting Information system for decision making in ARI-UYOLE. The variables of Participant, Information and Technology were put under study. These variables were chosen because they often direct or impact on work system operations and results. Inadequate performance or an improvement goal in terms of these variables is typical initial point for analysis of the system effectiveness.

So with assistance of SPSS statistical package whose results are attached on appendix III-IV the performance variables have been expressed at different level of detail and

precision ranging from ambiguous description to careful measurement and interpretation. The Table below summarizes the ambiguous measurements and interpretation.

Table 4.3: Results of AIS Assessment Variables

Variables	Explanation of Variable	SPSS results confirmation	Measurement of variable	Interpretation of variable
Participant	Other department cannot interpret the accounting information.	Other department lack necessary skills for interpretation of financial information.	76% of other department staff cannot interpret the financial information appendix III	Most of staffs are to be retained for proper effectiveness of AIS because the system is not appropriate for such experienced staff
Information	The information cannot assist decision making.	24% indicates the reports are too late for decision making Appendix III .	Appendix III indicates that 8% of information is correct and reports on time.	This is not very accurate, timely and reliable given the way information will be used.
Technology	The technology used is relevant to assist decision making	The manual information processing of AIS is relevant to this kind of organization	16% of other department says the technology is poor. Appendix III	The technology used to process the information is outdated and there is a need to repair the system.
Cycle time of AIS process	Payments and receipts take too long to be effected. The accounting cycle seems to take long time.	The controls bar effectiveness of the system. The contribution of AIS for decision making is high.	Appendix III indicates that 80% of other department sees the accounting cycle as too long.	The accounting cycle is too long to assist proper decision making.

Source: Field study, 2013

4.11 Conclusion on the Use of Accounting Information System for decision making.

Organization has direct impact on information systems by making decisions about how the technology will be used and what role it will play in the organization. This is through decisions about who will design, build and operate the technology within the organization. Supporting this changing role have been changes in the technical and organizational configuration of systems that have brought computing power and data much closer to the ultimate end users. Managers make the key decisions about the computer package these decisions determine how the technology service will be delivered and by whom how and when.

In this study the interview is directed to the Director of the ARI-UYOLE in order to assess the use of accounting information for decision making. The Director said the inputs from the AIS are sometimes unaccompanied and it is depends much on his insight creativity to be interpreted. Furthermore he identified the technology used to process information inefficient and it takes too long to receive relevant information and wanted the researcher to find the alternative ways to shorten the situation.

Also when the Director questioned on necessity to repair the system, the other heads of department in the board meetings replied that “still current knowledge should be utilized or the accounting team/staff should take advantage of Information Communication Technology revolution”. To researcher the repair of accounting system seems a last option though the benefits derived there from are good in long run compared to quick fix solutions, which have short run benefits.

Together all the heads of department and the Director decide that the ARI-UYOLE Accounting Information System is not very effective and it is difficult to trust on it for decision making. The improved Information Communication Technology tools and timely reporting would improve the circumstances.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The ARI-UYOLE control system is really impressive the office has an organized and elaborative accounting system. Responsibilities for every function are well and clearly defined and channels of communication are well established, theft really being minimized too large to extent, frauds and errors irregularities have been delights in spite of the few problems.

This research project was undertaken with the purpose of assessing the effective use of Accounting Information System in decision making for public sector organization:-

The major objective of the project was:-

- i) To investigate on the major course of effectiveness/ineffective of the ARI UYOLE Accounting Information System.
- ii) To examine the contribution of Accounting Information System.
- iii) To examine the level of knowledge and skill of various participants in the ARI-UYOLE Accounting Information System for quality decision making.
- iv) To examine the level of technology used to process the information in the Accounting Information of ARI-UYOLE.

As it was observed, the control system is generally effective but its ineffectiveness such as allowing errors or theft of money and mis-use of office assets to occur is not caused by poor control established, rather the ineffectiveness of the control is caused by people practicing the control, an intentional human errors, collusion, incompetence, immorality and back of integrity are some of the reasons.

Depiction from the whole it serves to conclude that the Accounting Information System in ARI-UYOLE cannot be used effectively for decision making because the effective AIS lead to improve decision making and hence organization performance. Decision making and performance depends:-

- i) On quality and quantity of information from Accounting Information System which is influenced by technology used and type of staff interpreting the results.

- ii) On information flow within the level of management.

Also Accounting Information System was explained to be effective when:-

- i) It helps the customers and other stakeholders to be served timely and with due professional care and skills.
- ii) The employee's level of knowledge and technical skill including the system itself changes with time through retention and system analysis.
- iii) It timely assists users to make rational decision.
- iv) It is adequate for an organization to meet its obligation and goals.

Discoveries show that the participants in ARI-UYOLE Accounting Information System lack necessary skills and knowledge due to high labour turnover. In addition the technology used to process data was very ineffective to support timely decision making. The ARI-UYOLE still uses the manual system to process various transaction and the research findings indicate that the manual system though cheaper but it is too expensive for timely decision making.

The research project found that a well-established account controls in the Accounting Information System are very important for purpose of obtaining high quality information for decision making in public sector.

Also the project intentional to scrutinize the contribution of Accounting Information System for decision making in terms of timelines and necessary input. To achieve this, the study examined the level of dependence and use of Accounting Information in various core operations of the organization. Majority of the users including the ZDRD proved of insufficiencies of Accounting Information System for decision making.

5.2 Recommendations.

In order to improve the effectiveness use of accounting information system in decision making for ARI-UYOLE; the study recommends the following:-

5.2.1 To solve the problem of poor skills of staffs, the study recommends that:

- i) ARI-UYOLE should institute special motivational bundle to keep the staff more creative, in-built and sensible in putting information for decision making.
- ii) ARI-UYOLE should endeavor for staff retaining strategy, by providing good environment for skilled and knowledgeable accounting staff to remain in their work. Example giving them house allowance, breakfast also overtime for doing their work too much.
- iii) ARI-UYOLE should improve the Staff training and development programs so as to provide more knowledge and skill in accounting information use and interpretation.

5.2.2 To solve the problem of accuracy, timeless and reliability of information usage, the study recommends that:-

- i) ARI-UYOLE should trainee the account staffs to allow them to produce qualitative information which could help other users to interpret the financial information simply.
- ii) ARI-UYOLE should have the propensity to allow the departmental heads to be trained on how to interpret the accounting information through in house training. It has to develop course with titles such as accounting for non-accounting managers and the alike.
- iii) ARI-UYOLE should put in policy for weekly, monthly and quarterly financial report to be produced by the accounting system. This will make the information not only to be timely but will help efficient in all areas of operation.

5.2.3 To solve the problem of poor technology, the study recommends that:-

- i) The Management of ARI-UYOLE should establish the computerized accounting system which will enable the worker to take just less time for conducting the work which is more efficient compared as they conducted.
- ii) ARI-UYOLE must put in plan a process to computerize all other units of operation in order to avoid incompatibility of dataflow.
- iii) ARI-UYOLE should ensure that phased changes should be made in order to avoid paralysis of activities in two some change to computerized system.
- iv) ARI-UYOLE should repair the system so as to enable them to produce the reliable information and utilize the development of Information Technology by purchasing software and hardware. These will include computers and accounting package such as ACCPAC-simply accounting or Tally or accounting made easy which are relevant to the nature of this organization. This will have to go simultaneously with staff training and development on effective use of those packages and hardware controls.

5.3 Recommendations for future Research.

This study demonstrates the effective of accounting information system in decision making by considering the variables such as skills of participant, accuracy of information and technology. However the alternative of Accounting system design and development for decision making and choice of computer system for effective decision making was not included. Future research is required to develop the system that will lead the good performance of the whole public sector in decision making.

Also the study was restricted to a single organization given time one can embark upon studying a reasonably sampled number of organization and in so doing manage to make reasonable and productive generalizations about the effectiveness use of Accounting Information System in decision making.

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APPENDICES

APPENDIX 1

MZUMBE UNIVERSITY MSC. (ACCOUNTING AND FINANCE) QUESTIONNAIRE FOR OTHER DEPARTMENTS

Dear Respondents,

I wish to notify you that, the purpose of this questionnaire is to gather data for the study title “An assessment of effectiveness of ARI-UYOLE accounting information system in decision making. You are requested to answer the question by ticking the answer which mostly suits your choice. The researcher assures that, the information obtained from you will only be used for the purpose of this study and not otherwise and the highest degree of confidentiality will be maintained your cooperation, therefore, will be highly appreciated.

Thanks in advance for your assistance in this matter.

General Instructions of filling this questionnaire

Kindly respond to all questions

Tick against the correct answer in the brackets provided and provide information in the space given for the questions which require additional information

Don't write your name on questionnaire when fillings in the forms

Each and every thing you answer will be treated as confidential

Thank you in advance!

1: What is your name?

.....

2. Gender

(i) Female ()

(ii) Male ()

3. How old are you?

- i) 18-30 yrs
- ii) 31-45 yrs
- iii) 45-60 yrs
- iv) 60yrs and above

4 What is your level of education?

- i) Primary school
- ii) Secondary school
- iii) College education
- iv) Other

5: What is your position in the organization?

.....

6: What is the level of cooperation between your department and the accounting department?

- i) Excellent ()
- ii) Fair ()
- iii) Poor ()

7: Do you think the kind of technology used by accounts staffs relevant to this kind of organization?

- i) Excellent ()
- ii) Moderate ()
- iii) Poor ()

8: Do you receive payments and receipt in time?

- i) Yes ()
- ii) No ()

9: Do you receive the financial reports in time?

- i) Yes ()
- ii) No ()

10: Do you get the information requested from the accounts department in time?

- i) Yes ()
- ii) No ()

11: What are the general comments regarding skills and knowledge of various staffs working in accounting departments?

- i) Excellent
- ii) Moderate
- iii) Poor

12: What do you comment about the general level of effectiveness of ARI-UYOLE accounting system?

- i) High
- ii) Moderate
- iii) Low

Thanks for your collaboration!

MZUMBE UNIVERSITY (MU)
MSC (ACCOUNTING AND FINANCE)

QUESTIONNAIRE FOR ACCOUNTS DEPARTMENT

Dear Respondents,

I wish to notify you that, the purpose of this questionnaire is to gather data for the study title “An assessment of effectiveness of ARI-UYOLE accounting information system in decision making. You are requested to answer the question by ticking the answer which mostly suits your choice. The researcher assures that, the information obtained from you will only be used for the purpose of this study and not otherwise and the highest degree of confidentiality will be maintained your cooperation, therefore, will be highly appreciated.

Thanks in advance for your assistance in this matter.

General Instructions of filling this questionnaire

Kindly respond to all questions

Tick against the correct answer in the brackets provided and provide information in the space given for the questions which require additional information

Don't write your name on questionnaire when fillings in the forms

Each and every thing you answer will be treated as confidential

Thank you in advance!

1: What is your name?.....

2: What is your role in organization?.....

3: Are you registered with the National Board of Accountants and Auditors (NBAA)?

a) Yes ()

b) No ()

4: Mention the major sources of fund in your organization?

- a)
- b)
- c)
- d)

5: What is the level of cooperation between your department and other department?

- a) Excellent ()
- b) Fair ()
- c) Poor ()

6: Who is responsible for receiving fund from various sources in your organization?

- a) Accountant ()
- b) Revenue accountant ()
- c) Cashier ()

7: Who is responsible for authorization of expenditure?

- a) Director ()
- b) Accountant ()
- c) User Department ()

8: When are the money received banked in your organization?

- a) I don't know ()
- b) The same day ()
- c) After two days ()

9: Do you think the kind of technology used to collect the money is relevant to this kind of organization?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

10: Do you think is there need to improve the way money is received and banked?

- a) Yes ()
- b) No ()

11: What are the major problems occurring in the process of receipt and payment of funds?

- a)
- b)
- c)
- d)

12: Do you have an accounting manual in your department?

- a) Yes ()
- b) No ()

13: Is Organization received the formation requested on time?

- a) Yes ()
- b) No ()

14: Is there any separation of duties in your department?

- a) Yes ()
- b) No ()

15: Is the payroll system in your department effective?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

16: What is the level of accuracy in recording expenditure?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

17: What is the level of accuracy in recording revenue?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

18: What is the level of accuracy in recording fixed asset?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

19: What are the reasons for some workers to be laziness in the organization?

- a) Poor equipment ()
- b) Poor motivation ()
- c) Poor salaries ()

20: What is the level of budgetary control in the organization?

- a) Excellent ()
- b) Fair ()
- c) Poor ()

21: Do you have cost accounting system in your accounts department?

- a) Yes ()
- b) No ()

22: Are the heads of department strongly following the requirements of their budget?

- a) Yes ()
- b) No ()

23: What is the effectiveness of accounts billing system in the organization?

- a) Excellent ()
- b) Moderate ()
- c) Poor ()

24: Is there any mechanism of following up various invoices sent to other department?

- a) Yes ()
- b) No ()

25: What do you comment about the general level of effectiveness of ARI-UYOLE accounting system?

- a) High ()
- b) Moderate ()
- c) Low ()

Thanks for your collaboration!

RESULTS OF SPSS Statistical package.

Frequencies

SPSS RESULTS FOR QUESTIONAIRES TO OTHER DEPARTMENTS

Statistics

	What is the level of cooperation between accounting and other departments	Do you think the kind of technology used by accounts staffs relevant to this kind of organization	Do you receive payments and receipt in time	Do you receive financial report in time
N Valid Missing	25 0	25 0	25 0	25 0

Statistics

	Do you get the information requested from the accounts department in time	What are the general comments regarding skill and knowledge of various staffs in accounts staffs	What do you comment about the general level of effectiveness of ARI-UYOLE accounting staffs.
N Valid Missing	25 0	25 0	25 0

What is the level of cooperation between accounts staffs and other departments

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	10	40.0	40.0	40.0
Fair	10	40.0	40.0	80.0
Poor	5	20.0	20.0	100.0
Total	25	100.0	100.0	

Do you think the kind of technology used by accounts staffs is relevant to this kind of organization.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	3	12.0	12.0	12.0
Moderate	18	72.0	72.0	84.0
Poor	4	16.0	16.0	100.0
Total	25	100.0	100.0	

Do you receive receipt and payment in time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	5	20.0	20.0	20.0
No	20	80.0	80.0	100.0
Total	25	100.0	100.0	

Do you receive financial report in time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	2	8.0	8.0	8.0
No	23	92.0	92.0	100.0
Total	25	100.0	100.0	

Do you get the information requested from the accounts department on time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	19	76.0	76.0	76.0
No	6	24.0	24.0	100.0
Total	25	100.0	100.0	

What are the general comment regarding skills of various staffs in accounts department.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	10	40.0	40.0	40.0
Moderate	11	44.0	44.0	84.0
Poor	4	16.0	16.0	100.0
Total	25	100.0	100.0	

What do you comment about the general level of effectiveness of ARI-UYOLE accounting staffs

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid High	10	40.0	40.0	40.0
Moderate	10	40.0	40.0	80.0
Low	5	20.0	20.0	100.0
Total	25	100.0	100.0	

Frequencies

RESULTS OF QUESTIONNAIRES TO ACCOUNTS STAFFS

Statistics

	Are you registered with the NBAA	What is the level of cooperation between your department and other department	Who is responsible for receiving fund from various sources	Who is responsible for authorization of expenditure	When are the money received banked in your organization	Do you think the kind of technology used to collect the money is relevant
N Valid	6	6	6	6	6	6
Missing	0	0	0	0	0	0

Statistics

	Do you think is there need to improve the way money is received and banked	Do you have an accounting manual in your department	Is organization received the information requested in time	Is there any separation of duties in your department	Is the payroll system in your department effective	What is the level of accuracy in recording expenditure
N Valid	6	6	6	6	6	6
Missing	0	0	0	0	0	0

Statistics

	What is the level of accuracy in recording revenue	What is the level of accuracy in recording fixed asset	What are the reason for some workers to be laziness	What is the level of budgetary control in the organization	Do you have cost accounting system in your accounts department	Are the heads of department strongly following the requirements of their budget
N Valid	6	6	6	6	6	6
Missing	0	0	0	0	0	0

Statistics

	What is the effectiveness of accounts billing system in the organization	Is there any mechanism of following up various invoice sent to other department	What do you comment about the general level of effectiveness of ARI-UYOLE accounting system
N Valid	6	6	6
Missing	0	0	0

Are you registered with the NBAA

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

What is the level of cooperation between your department and other department

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	2	33.3	33.3	33.3
Fair	4	66.7	66.7	100.0
Total	6	100.0	100.0	

Who is responsible for receiving fund from various sources in your organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Cashier	6	100.0	100.0	100.0

Who is responsible for authorization of expenditure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Director	6	100.0	100.0	100.0

When are the money received banked in your organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Same day	6	100.0	100.0	100.0

Do you think the kind of technology used to collect the money is relevant to this kind of organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	2	33.3	33.3	33.3
Moderate	3	50.0	50.0	83.3
Poor	1	16.7	16.7	100.0
Total	6	100.0	100.0	

Do you think is there need to improve the way money is received and banked

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

Do you have an accounting manual in your department

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

Is organization received the information requested in time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

Is there any separation of duties in your department

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

Is the payroll system in your department effective

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	1	16.7	16.7	16.7
Moderate	4	66.7	66.7	83.3
Poor	1	16.7	16.7	100.0
Total	6	100.0	100.0	

What is the level of accuracy in recording expenditure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	1	16.7	16.7	16.7
Moderate	5	83.3	83.3	100.0
Total	6	100.0	100.0	

What is the level of accuracy in recording revenue

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	1	16.7	16.7	16.7
Moderate	5	83.3	83.3	100.0
Total	6	100.0	100.0	

What is level in recording fixed asset

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	1	16.7	16.7	16.7
Moderate	5	83.3	83.3	100.0
Total	6	100.0	100.0	

What are the reasons for some workers to be laziness in the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Poor equipment	1	16.7	16.7	16.7
Poor motivation	3	50.0	50.0	66.7
Poor salaries	2	33.3	33.3	100.0
Total	6	100.0	100.0	

What is the level of budgetary control in the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	1	16.7	16.7	16.7
Moderate	5	83.3	83.3	100.0
Total	6	100.0	100.0	

Do you have cost accounting system in your accounts department

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	100.0	100.0	100.0

Are the heads of department strongly following the requirements of their budget

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	3	50.0	50.0	50.0
No	3	50.0	50.0	100.0
Total	6	100.0	100.0	

What is the effectiveness of accounts billing system in the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Excellent	2	33.3	33.3	33.3
Moderate	3	50.0	50.0	83.3
Poor	1	16.7	16.7	100.0
Total	6	100.0	100.0	

Is there any mechanism following up various invoices sent to other department

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	2	33.3	33.3	33.3
No	4	66.7	66.7	100.0
Total	6	100.0	100.0	

What do you comment about the general level of effectiveness of ARI-UYOLE accounting system

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid High	2	33.3	33.3	33.3
Moderate	3	50.0	50.0	83.3
Low	1	16.7	16.7	100.0
Total	6	100.0	100.0	