

**AN EXAMINATION OF THE EFFICIENCY AND  
EFFECTIVENESS OF CIRCULATION CONTROL SYSTEMS OF  
SELECTED UNIVERSITY LIBRARIES IN TANZANIA AND  
KENYA**

**By**

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**A Thesis Submitted in Fulfillment of the Requirements for the Degree of Doctor of  
Philosophy (Information Studies) of the University of Dar es Salaam**

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## CERTIFICATION

The undersigned certify that they have read and hereby recommend for the acceptance by the University of Dar es Salaam a thesis entitled: *An Examination of the Efficiency and Effectiveness of the Circulation Control Systems of Selected University Libraries in Tanzania and Kenya*, in fulfilment of the requirement of the degree of Doctor of Philosophy (Information Studies) of the University of Dar es salaam.

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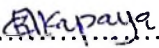
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## **DEDICATION**

To my Dearest Late Parents: Maulidi Omari and Joha Nzige:

To them I dedicate this work.

May the Almighty God rest their Souls in Eternal Peace, AMIN!

## ABSTRACT

This study examined the efficiency and effectiveness of circulation control systems in minimising book losses in the selected university libraries in Tanzania and Kenya. University libraries have been experiencing book losses either through extended or unrecorded overdue loans or illegal borrowing. Prior to computerization, the libraries except MTL used a manual circulation control system which was slow, cumbersome and time consuming.

A multi-stage cluster sampling was used to select 494 participants, of these, 113 were from Sokoine, 116 from Nairobi, 106 from Moi and 159 from Dar es Salaam. Data was collected through a structured standardised self-administered questionnaire with both open-ended and closed questions, face -to -face interviews; observations and content analysis. Key findings revealed that for most respondents, the library is a key source of information and that inadequate student book allowances, low staff salaries, inadequate library budget, and where the circulation control system is manual, contribute greatly to book losses and mutilation in university libraries. Automated circulation control systems are more efficient in minimising book loss than manual circulation control systems. It is therefore recommended that libraries should computerise their library functions including circulation control systems in order to improve the quality of services and to minimise book theft, overdues and mutilation. Library staff must also be committed, well paid and well motivated to enable them to perform their duties efficiently and effectively. University libraries and the parent institutions must invest in the training of staff in order to improve performance, efficiency and effectiveness. They must also be adequately funded in order to meet the information needs of the users and academic programmes offered at the universities.



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## LIST OF ABBREVIATIONS

|        |   |  |
|--------|---|--|
| ACU    | - | Association of Commonwealth Universities           |
| AACR   | - | Anglo-American Cataloguing Rules                   |
| ABC    | - | African Book Collective                            |
| AC     | - | Academic   |
| AD     | - | Administrative                                     |
| ADD    | - | Architecture, Design and Development               |
| ADLIB  | - | Adapted Library Software                           |
| AGR    | - | Agriculture  |
| ALA    | - | American Library Association                       |
| ALIS   | - | Association of Library and Information Science     |
| BAI    | - | Book Aid International                             |
| BERE   | - | The Bureau of Educational Research and Evaluation  |
| BICO   | - | The Bureau of Industrial Co-operation              |
| CAB    | - | Commonwealth Agricultural Bureau                   |
| CCM    | - | Chama cha Mapinduzi                                |
| CD ROM | - | Compact Disc Read Only Memory                      |
| DARUSO | - | University of Dar es Salaam Students' Organisation |
| EAF    | - | East Africana                                      |
| ERB    | - | The Economic Research Bureau                       |

|        |   |   |
|--------|---|---|
| ESAURP | - | Eastern and Southern African Universities Research and Publications |
| FAO    | - | Food and Agricultural Organisation                                  |
| FIS    | - | Faculty of Information Science                                      |
| IBM    | - | International Business Machines                                     |
| ICT    | - | Information and Communication Technology                            |
| ID     | - | Identification  |
| IDA    | - | International Development Agency                                    |
| IDRC   | - | International Development Research Co-operation                     |
| IDS    | - | The Institute of Development Studies                                |
| IKR    | - | The Institute of Kiswahili Research                                 |
| ILCA   | - | International Livestock Centre for Africa                           |
| ILO    | - | International Labour Organisation                                   |
| IMF    | - | International Monetary Fund   |
| IMS    | - | The Institute of Marine Sciences                                    |
| IPI    | - | The Institute of Production Innovation                              |
| IRA    | - | The Institute of Resource Assessment                                |
| ITA    | - | Institute of Tropical Agriculture                                   |
| JKML   | - | Jomo Kenyatta Memorial Library                                      |
| LIBIS  | - | Library Information Systems   |
| LISR   | - | Library and Information Science Research                            |
| LRTI   | - | Livestock Research and Training Institute                           |

|         |   |   |
|---------|---|---|
| MBA     | - | Masters of Business Administration  |
| MED     | - | Medicine  |
| MTL     | - | Margaret Thatcher Library   |
| NORAD   | - | Norwegian Agency for International Development  |
| NOTIS   | - | National Organisation for International Scientific Technology                                   |
| NUFFIC  | - | Netherlands Organisation for International Cooperation in Higher Education                      |
| OB      | - | Outside Borrowers   |
| OPAC    | - | Online Public Access Catalogue  |
| PAO     | - | Public Administrative Officer   |
| PER     | - | Periodicals   |
| PG      | - | Postgraduates   |
| PMU     | - | Programme Management Unit   |
| SACCAR  | - | Southern African Centre for Co-operation in Agricultural Research                               |
| SAREC   | - | Swedish Agency for Research Cooperation with Developing Countries                               |
| SCANUL  | - | Standing Conference for African National and University Libraries                               |
| SCECSAL | - | Standing Conference for Eastern, Central and Southern Africa Library & Information Associations |
| SES     | - | School of Environmental Studies   |

|              |   |   |
|--------------|---|---|
| SIDA         | - | Swedish International Development Agency                        |
| SNAL         | - | Sokoine National Agricultural Library                           |
| SSCDS        | - | School of Social, Cultural and Development Studies              |
| SUA          | - | Sokoine University of Agriculture                               |
| TALIS        | - | Tanzania Literature Service                                     |
| TEEAL        | - | The Essential Electronic Agricultural Library                   |
| TROPAG RURAL | - | Tropical Agriculture and Rural Development                      |
| UN           | - | United Nations  |
| US           | - | United States   |
| USA          | - | United States of America  |
| UCB          | - | University Consultancy Bureau                                   |
| UDASA        | - | University of Dar es Salaam Academic Staff Assembly             |
| UDSM         | - | University of Dar es Salaam                                     |
| UG           | - | Undergraduates  |
| UGC          | - | University Grants Committee                                     |
| UNCTAD       | - | United Nations Conference on Trade and Development              |
| UNEP         | - | United Nations Environmental Programme                          |
| UNES         | - | University Enterprises Services                                 |
| UNESCO       | - | United Nations Educational Scientific and Cultural Organisation |
| UNICEF       | - | United Nations International Children's Educational Funds       |
| UNIDO        | - | United Nations Industrial Development Organisation              |
| UNO          | - | United Nations Organisation                                     |

|       |   |  |
|-------|---|--|
| USAID | - | United States Agency for International Development |
| USDA  | - | United States Department of Agriculture            |
| WHO   | - | World Health Organisation                          |



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Lending or circulation of library books for home use is a major function of libraries. Therefore, every library must have a circulation control system. According to Battaile, (1992: ix) "Circulation Systems are control systems which facilitate efficient and effective flow of materials from the library to the user and back". An effective circulation control system must produce intended or expected results and must save the time of the reader such that "the user does not spend too much time at the circulation desk beyond a reasonable waiting time" (Kumar, 1987:142). Similarly, a circulation control system must meet the local requirements (such as users, objectives of the library and volume of transactions).

Libraries worldwide suffer book losses through extended overdue loans and unrecorded loans or illegal borrowing but the degree differs from library to library. Book theft can be attributed to several factors including financial constraints, weak security at exit gates, collusion between staff and students and lack of regular stocktaking which blinds librarians to their losses. In view of this, libraries have developed systems to keep track of who has what and when they are due back. This system is called a circulation control system.

A circulation control system is defined as the sum of all policies, procedures and methods used in the execution of circulation services. The term “control” means “the process of assuring the accomplishment of desired organisational goals by establishing standards, measuring and evaluating performance and making necessary adjustments” (ALA Glossary, 1983:58). A key function of any library circulation control system is to facilitate an effective borrowing process, charging and discharging of library books and other materials, registration of users, monitoring circulation of library resources and maintaining user statistics, controlling and monitoring usage of library resources, reservations, recall of overdue items and renewal of library materials. It is also a means by which libraries ensure maximum usage, and security of library materials. These processes can be done either manually or by using computer terminals.

Key factors to take into consideration when considering circulation control system include the objectives of the library, volume of transactions, the number of library users, the environment, utilities, and the financial capacity and the availability of skilled personnel. Essentially, library circulation control system must meet local requirements such as needs of users, objectives of the library and volume of transactions (as explained above) as effectively as possible.

The most commonly used circulation control systems in libraries are manual circulation control systems (such as the Browne system); mechanised circulation control systems (such as the Newark system); and computerised circulation control systems such as the ADLIB (Adapted Library Software).

According to Kumar (ibid: 145) a circulation control system should be able to provide the following answers:

- (i) *Who has borrowed a particular volume on loan?*  
*When is it due?*
- (ii) *Which and how many books subject-wise have been borrowed on any date?*
- (iii) *Which books are due on any date?*
- (iv) *How many books were returned on any date?*

Thus a circulation control system is the sum of all policies, procedures and methods used in the execution of circulation services. Moreover, a library must have a system to keep track of who has what and when they are due back.

Computers were first used for circulation control purposes in the US in the early 1960s and in the UK in the late 1960s. Akinfolarin (1992), Abid (1991), Reed (1991), Dane (1991) who have studied book losses in university libraries and art libraries note that most libraries which experience book losses eventually opt for computerised library systems to strengthen alarm security systems and minimise book losses. They speed up circulation operations unlike manual circulation control systems which are slow, time-consuming and cumbersome.

## **1.2. Statement of the Problem**

An efficient and effective circulation control system is crucial in improving the quality of services offered and minimising book losses. Until recently most university libraries in Tanzania and Kenya used the Browne manual circulation control system. The problem is that the system was labour intensive, cumbersome,

slow, time consuming and often contributed to book loss, theft, mutilation and cumulative overdue and it was difficult to keep track of transactions because everything was done manually including charging and discharging, sorting, recording and filing. It took time to complete transactions at the circulation desk. Complaints from users were also common due to poor services. In the late 1970's Tanzania experienced an economic crisis and world recession which resulted in cutbacks in government spending for social services including education. This also resulted in dwindling library budgets, stagnating salaries and student allowances and a scramble for limited library resources, culminating in book scarcity, book theft and mutilation.

Studies show that most manual circulation control systems begin to falter under an annual load of more than 250,000 issues. Prior to computerisation, the University of Dar es Salaam Library's annual load, was less than 30,000 issues after which its circulation system began to falter. In the late 1960s, until early 1980s, the University of Dar es Salaam Library experienced few book losses, long outstanding overdue and mutilation (UDSM Library Annual Report of 1968, 1970 and 1980). At that time students and lecturers usually returned or renewed books on time and there were no book mutilation or misplacement. However, in 1985, the situation changed when "17,425 books could not be located either on the shelves, or as loans, or as materials sent for binding because most books were taken out of the library illegally" (Mwinyimbegu, 1988:25).

The total number of unreturned books and "lost" books was approximately 10% of the total collection [Annual Reports: Reader Services Department, UDSM Library (1989-

1998)]. From the 1990s onwards, the library experienced more book losses, mutilation and accumulated overdues. The question then was: Why did the library lose so many books during this time than it did in the past? Therefore this study investigated whether there is a relationship between circulation control systems and book loss/mutilation or overdues in the selected university libraries in Tanzania and Kenya by comparing manual and computerised circulation control systems.

The underlying assumption of this study is that book losses occur due to weak circulation control system, inadequate security measures at the circulation desks and exit points and due to financial constraints.

### **1.3 Purpose of the Study**

The main purpose of this study was to examine the efficiency and effectiveness of circulation control systems in controlling book loss, identify constraints and propose strategies, in the selected university libraries in Tanzania and Kenya.

### **1.4 General Objective**

To examine the efficiency and effectiveness of circulation control systems in controlling book losses in the selected university libraries.

### **1.5 Specific Objectives**

1. To examine circulation control systems used in the selected university libraries in Tanzania and Kenya.

2. To identify factors contributing to book losses in university libraries in Tanzania and Kenya.
3. To compare and contrast manual circulation control systems with computerised ones in university libraries.
4. To establish users' perception of the effectiveness and efficiency of circulation control systems in university libraries in Tanzania and Kenya.
5. To propose the way forward and strategies for improving circulation control systems.

### **1.6 Research Questions**

Five research questions (as outlined below) guided this study:

1. What types of circulation control systems are used in the selected university libraries?
2. What factors contribute to book losses in the selected university libraries?
3. How do manual circulation control systems compare with computerised ones in terms of efficiency and effectiveness in controlling book losses?
4. What are users' views on circulation control systems in the selected university libraries?
5. What strategies can be used to improve the provision of circulation services to library users in the selected university libraries?

### **1.7 Significance of the Study**

1. From a professional and policy point of view, this study may become a basis for encouraging creation of library policies and for influencing Reader Services

Librarians and Library Directors, to invest in an effective and efficient circulation control system.

2. Findings of this study may become a basis for developing effective and efficient strategies for preventing or minimising book losses in libraries.

3. Finally this study has contributed to literature on the topic.

### **1.8 Theoretical Framework**

There are many schools of thought on circulation control systems. One school of thought attributes book losses to inherent insecurity problems of manual systems, even though libraries with computerised circulation control systems experience book losses. The second school of thought attributes book losses to socio-economic factors of users and stress that unless this is addressed book losses will continue. However, Ranganathan (cited in Michele and John, 2005) views the library as a living organism which must change with time while at the same time meeting individual information needs in a timely manner. Shiyali Ramamrita Ranganathan (ibid) is known as “the Father of Library Science” and is highly respected all over the world.

#### **Ranganathan’s Five Laws of Library Science Theory:**

This study adopted Ranganathan’s five laws of library science which were developed in 1931. These laws are considered to be the foundation of library philosophy worldwide. Ranganathan’s five laws of library science stipulate that:

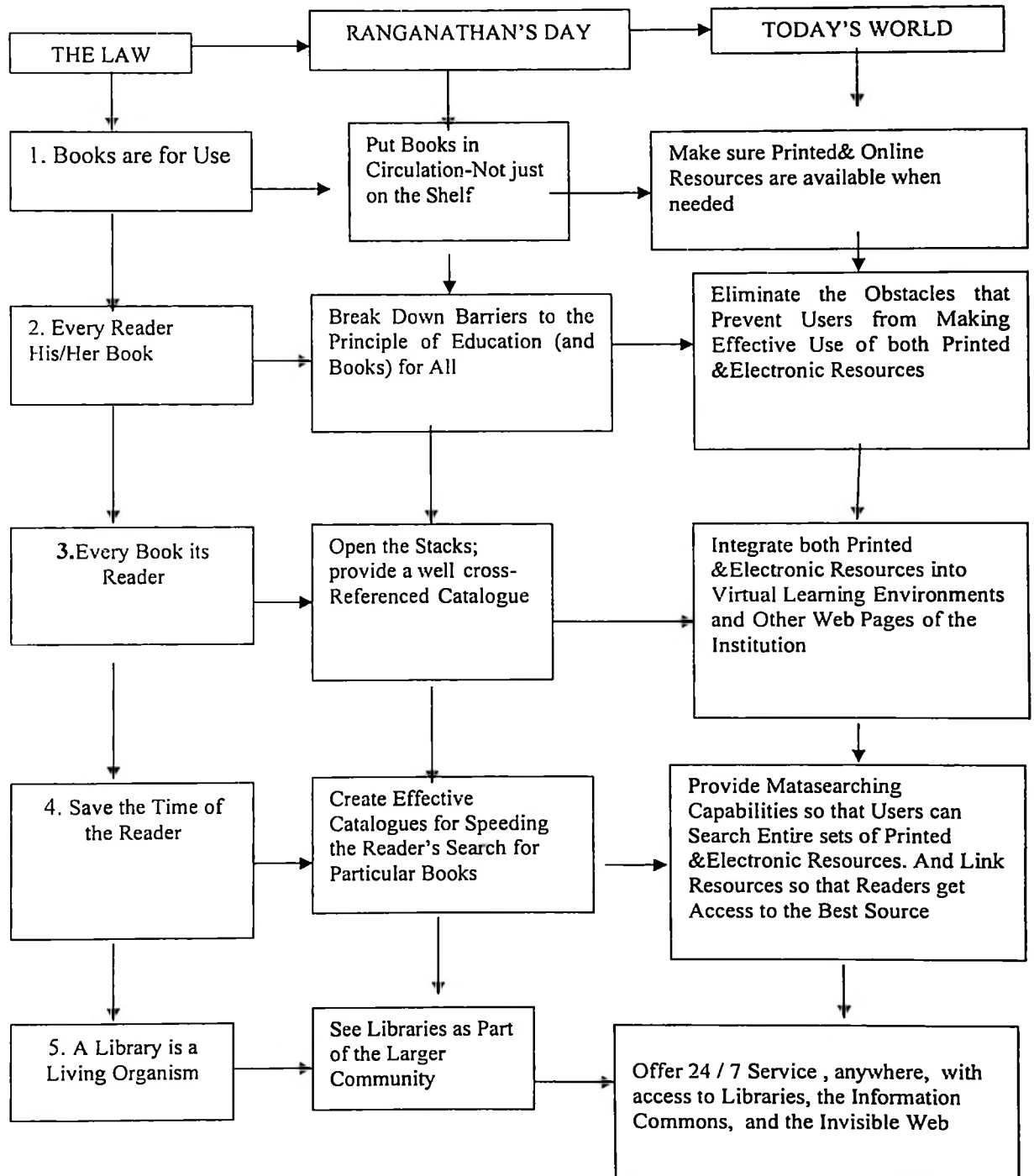
1. Books are for use
2. Every reader his/her book

3. Every book its reader
4. Save the time of the reader
5. A library is a growing organism.

These laws continue to directly affect the development of library services. Ranganathan's early educational background was in mathematics. Later he applied his systematic thinking to his work in library science, most notably his work on library classification and administration (Indian Statistical Institute Library et al, 2007). From the middle of the nineteenth century, librarians in the west felt the need and started emphasising the importance of enhanced services to library patrons. Kabir (2003) is of the opinion that "Formulation of the five laws of library science at long last provided a solid and lasting foundation in this direction". These normative laws embrace standards of practice and are fundamental to what librarians, information specialists and researchers do. Kabir (2003) in his work, examined how researchers, librarians and information specialists work in the digital environment, and found it useful to see how the five laws apply to library activities in the electronic world. The researcher of this thesis also sees that the five laws can be applied to library activities related to text books and other printed materials which are not online but in hard copies. This study will focus on all the five laws [please refer to the model on the next page]:



**Figure 1: Ranganathan's Five Laws of Library Science Model**



Source: Michele, C. V. & J. G. Dove (2005), *Ranganathan Online*,  
<http://www.libraryjournal.com/article/CA512179.htm> / retrieved on  
 Friday, 6th July 2007

**Interpretation of Ranganathan's Five Laws of Library Science in  
 Diagram Form has been Designed by the Author.**

Books are for use. In Ranganathan's days library resources were hidden from the user through closed stacks, poor displays, or lack of services such as bookmobiles. Ranganathan's first law (Books are for use) advocated for books being put into circulation, not just on the shelf, so that they could be used by as many users as possible.

Michele and John (2005) improved upon the law by including online resources to Ranganathan's list including marketing to reflect the current information environment by stressing:

*Pay attention to marketing: do everything that retailers do and more to catch the interest of those who would get a lot of your electronic resources but might not know them or how to use them.*

This means Librarians and Information Specialists must also market and publicise the resources they have so that readers become aware and use them effectively.

The second law (Every reader his/her book) simply means the library should stock books that meet individual interests and needs. In other words collections should be developed with peoples' interests in mind. This is why librarians must be strategic in collection development and must invest in an effective circulation control system. A good circulation control system will enable users to retrieve information from the collections and it can be loaned out faster.

The third law (Every book its reader) is about ensuring that the library stocks books that meet a wide variety of readers or simply that readers can find what they need every

time they go to the library (Ranganathan cited in Michele and John, 2005). According to Ranganathan, if a book is not being used, it means it has not been well publicised to groups of readers who might find it useful. The responsibility of the librarian is to build a well organised collection of resources in order to ensure that users will find what they need. Furthermore it is the responsibility of the librarians to help readers find information resources they need.

The third law “Every book its reader” is violated when valuable resources needed by readers are not made available to them. With increasing access to more resources and more ways to search for them, every book or information source can make its way to its appropriate user (Ibid, 2005). Ranganathan’s third law, is the most elusive and the most forceful: “getting authoritative information sources to potential users is the *raison d’etre* of librarians and libraries” (Ibid, 2005). During Ranganathan’s days the third law was fulfilled by opening the stacks and providing a well cross-referenced catalogue. Today, because most of the libraries are automated, it is important to update the Online Public Access Catalogue (OPAC) regularly and train library staff and users in information literacy skills.

The fourth law: “Save the time of the reader”, has been responsible for many reforms in library administration. Basically the law stresses that libraries must ensure that users find what they need in a timely manner and if this is done then users will feel satisfied with the quality of library services because their needs are met. The law further stresses that a library’s policies, rules, mission, procedures and systems must be formulated with saving the time of the reader in mind (Ranganathan cited in Michele and John, 2005).

For example, hours of operation must be set in order to ensure appropriate and convenient access, and the collection must be arranged in an inviting, clear, and obvious way so as not to waste the time of users. An efficient circulation control system coupled with “a well-planned and executed library handbooks, stack guides, and library tours, or research instruction sessions and trained personnel as well as new technology can save the time of the reader”, (Ibid, 2005).

Ranganathan’s fifth law (the library is a growing organism) basically means that “the library is dependent on life and change without which the library would neither function properly, nor meet its purpose” (Wikipedia, the Free Encyclopaedia, 2007). Ranganathan’s concern is about library administrators (professionals and non-librarians alike) who control library budgets and believe that they can save money by cancelling groups of subscriptions and then restart them in a year or so. As a living organism, “libraries consume information, and any cessation in the flow of information starves the organism. Cutting a library off from its resources at any arbitrary point will surely make it ILL, and perhaps may even KILL it” (Ranganathan cited in Michele and John, 2005). That means the library without resources will not get users who may wish to visit it in order to search for information. This may lead to the library not functioning as an information centre since it will be an empty building, the building without any information.

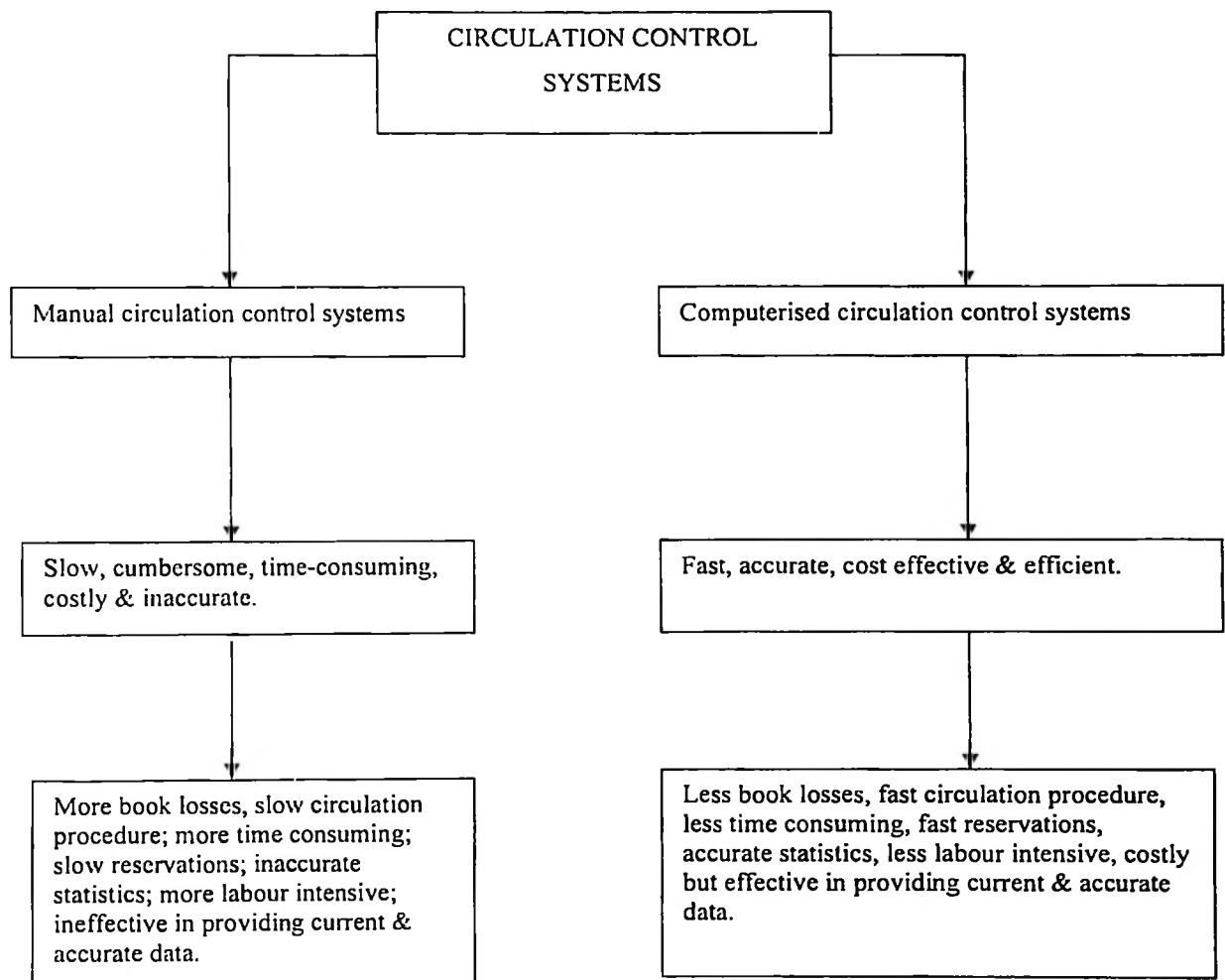
However, Ranganathan’s five laws of library science (theories) pertain to the present state of information management and access. Therefore, they are also relevant to this study. Ranganathan’s five laws eventually stipulate that computerisation of

circulation control systems in libraries will ultimately improve the efficiency and effectiveness of the services rendered to library users. Also Ranganathan explicitly states that, for his laws to be implemented there must be adequate reading materials (both print and electronic) in the library, adequate library budget and trained users in information literacy. This study is therefore guided by Ranganathan's theory involving five of his laws in library science: "Books are for use; "Every reader his/her book;" "Every book its reader;" "Save the time of the reader" and "A library is a growing organism". Ranganathan's laws provide essential guidelines for librarians and information scientists with the potential for planning and providing the patron (library user) with services in all types of libraries. These five laws have been used in this study to explain what constitutes quality library services.

This section includes a definition of terms used in this study and an explanation of their relationship. The underlying assumptions of this study are that an effective and efficient circulation control system is a catalyst in the provision of better circulation services to library users.

The key issue is how "Efficiency" and "Effectiveness" are related to Circulation Control Systems and the mitigating factors in the selected university libraries in Tanzania and Kenya. This relationship is elaborated in the diagram below:

**Figure 2: Diagram to Show The Relationship Between “Efficiency and Effectiveness” in Relation to “Circulation Control Systems” & the Mitigating Factors in the Selected University Libraries in Tanzania and Kenya.**



**Source: Field Data, 2000**

**Diagram Designed by the Author.**

### **1.9 Operational Definitions of Key Terms**

It is important to define these terms because the same word can have a different meaning and therefore it is important to understand how they are used in the context of this study.

#### **Circulation System**

According to the ALA (1983:43) a circulation system is “the sum of all policies, procedures, and methods used in the execution of circulation services”. Battaile, (1992:ix) observes that “in a library circulation, the orderly movement through a circuit applies to the process of lending books to borrowers and then accurately re-shelving them after they have been returned so that they will be retrievable by the next user”.

#### **Circulation Control System**

A circulation control system can be defined as the “sum of all policies, procedures and methods used in the execution of circulation services”, (ibid). According to ALA Glossary (1983:58) it involves seven main activities: “user registration, charging, discharging, reservation, detecting illegally borrowed materials, compiling of library statistics, shelving of returned and used books and shelf-reading of books on the shelves. Thus, library circulation control includes issue, discharge, multi-site, barcodes, fines and self- issue services”. Taken in this context circulation is a process of passing information from the library to a library user. Circulation features include all the items on loan to a borrower with overdue clearly indicated, borrower’s reservation details, borrowing history and outstanding fines, statistics of borrowers

and books on loan. The term control means, "the process of assuring the accomplishment of desired organisational goals by establishing standards, measuring and evaluating performance and making necessary adjustments" (ALA Glossary, 1983:58). In this study the term "Circulation" is defined as "the total number of books issued from a library in a given period" (Harrold, 1971:147).

### **Circulation Department**

The Circulation Department is responsible for loaning out materials to legitimate borrowers, accepting returned materials back to the library and user registration. Therefore a good circulation control system should quickly and easily determine the items in the library collection and their location, issue and return materials accurately, identify eligible borrowers and the material charged out. In addition it generates overdue and recall notices, reserves items and issues notices for returned and overdue items, also indicating when a borrower attempts to borrow more items than is permissible and generates the required statistics. According to Battaile (1992: ix) the Circulation Department's basic function "is to facilitate and monitor the circulation of books and non book materials from the library to the user and back."

### **Manual Circulation Control Systems**

Manual circulation control systems involve the use of manual labour in charging and discharging books. Manual circulation control systems include: Day Book System, Ledger Book System, Temporary Slip System and the Browne Circulation System. In the **Day Book System**: details of the borrowed book, the borrower and the due date are written in a single book while in the **Ledger Book System**: each borrower



has a separate page in the ledger where all his/her transactions regarding charging and discharging are recorded. With regard to the **Temporary Slip System**, a slip is made for each item borrowed and the particulars of the borrower, title borrowed and due date are recorded.

**Browne Circulation Control System** The Browne Circulation Control System uses a series of cards to control circulation systems. Book pockets, book cards and borrowing tickets are typed. The book card is slipped in the book pocket which is later pasted in the book while the borrowing tickets are given to the user. Charging, discharging, reservation and compilation of books' and user' statistics is done manually. The Browne circulation control system enables the library to efficiently charge out and keep track of all items in circulation.

In the Browne circulation control system five main activities are involved: identification of the user, book preparation, charging, discharging and reservation. For identifying the user the following activities are performed. The Browne circulation control system uses a series of cards. It is most effective in libraries with a small number of users. It also enables the library to charge out and keep track of all items in circulation. However, this system has several weaknesses in the sense that it is time consuming. For example:

Major disadvantages of the Browne system include:

- (a) It takes time to write down all the information in a circulation notebook.
- (b) There is no real control over the number of books issued.
- (c) The system is labour intensive, is cumbersome and prone to human error.

- (d) A number of trays are required for circulation records.
- (e) Sorting, recording, filing of loan records is done manually and mistakes are bound to happen.
- (f) There can be a disorderly circulation desk with poor maintenance and management of a number of circulation records.

The main purpose of a circulation system is to give the library user (reader) as much access to the library stock as possible. Unfortunately, for manual systems, once a book is lent to one reader it is not available to others and therefore certain restrictions have to be made.

**Computerisation** - Refers to the application of modern information technology to handle library functions and activities.

#### **Computerised Circulation Control System-**

A computerised library circulation control system as the name suggests uses computers to handle charging and discharging of library materials and further facilitates user registration, overdues, renewals, reservations and communication. Major advantages of computerised circulation control system include “speed, efficiency, accuracy and cost effectiveness, reduces staff workload and time devoted to circulation functions or management of reserve collections, while at the same time increasing the efficiency of the service to users, maintaining borrowers’ records and providing accurate and reliable statistics including evaluation of library materials and equipment based on usage” (Tedd, 1993:164). Electronic security systems can easily

detect books that have not been legally borrowed and prevent them from leaving the library. They also facilitate timely recording and maintenance of loan transactions, thorough handling of overdue fines and recording and accessing the status and other information about the collection.

Computers can perform different tasks simultaneously in a very short time, requires few people to process inputs, maintain borrowers' records and borrowing transactions, accurate and timely circulation statistics. All this save the time of users. A computer can store large quantities of data in its memory and can retrieve them with greater accuracy. Also there are no cost incurred to purchase manila sheets and other materials for borrowing tickets, or ledger books unlike in manual circulation control systems of circulation. Another advantage is that a computerised circulation control system is not flexible in the sense that it does not permit any transaction to be performed unless a user is cleared of any overdue books and books lost, etc. The system also allows the researcher to go straight in using his own terms [when consulting the Online Public Access Catalogue (OPAC)]. Also, the same basic vocabulary can be used for all databases. Today most university libraries opt for computerised circulation control systems in order to provide cost- effective and efficient services and also added benefits at lesser cost.

The disadvantages include heavy financial and human investments, installation costs, for hardware and software applications and maintenance of computerised circulation control systems. Computerised circulation control system also require skilled labour and often results in job loss as machines replace humans because the work which

was to be done by many people will be done by one skilled person. Furthermore, they require steady power supply and investment in power generators particularly in developing countries. Loss and damage of data and information can occur if the computer crashes. That is why it is crucial to have separate backup facilities on which information is stored.

Basically, a computerised circulation control system is the sum total of computerised policies, procedures and methods used in the execution of circulation services. It also includes “a plurality of remote book- processing terminals, a computer controlling the terminals and processing data between the terminals and a computer to maintain the current circulation control for the system to operate as a library circulation control system” (Library Circulation Control System, 1979). For the purposes of this study this term will apply.

**Barcode** –A printed label containing machine-readable data encoded in vertical lines of equal length but variable thickness, which can be read into an attached computer by an optical scanner. In libraries barcodes are used to identify books and other materials for circulation and inventory and to link the borrower’s library card to the appropriate patron record in automated circulation systems. Barcodes identify both readers and items (accessions). Magnetic strips and smart cards can be used to enter reader codes with appropriate hardware. This definition will apply in this study.

**Book Losses** – Items which are borrowed from the library and not returned. The operational definition of book loss in this study is the absence of the book from the

shelf, or a book which has not been charged out between six months and one year. Library users move away and take their borrowed items with them. This definition is complicated by the fact that books may sometimes reappear on the shelves two years later after they had been reported as missing.

**Borrower** – A person who checks out books and other materials from a library. Most libraries require users to register to receive the borrowing privileges associated with a library card. Some form of identification is usually required of new applicants. Not all library patrons are registered borrowers in public and academic libraries. Unregistered persons may use reference materials and items in the circulating collection without removing them from the library premises. The library privileges to which a borrower is entitled are indicated by the individual's borrower status.

**Borrower Records** - These are records of borrowers kept by the library. They are accessed by the name of the borrower, his/her registration number and /or barcode of a book.

**Borrower Status** – The borrowing privileges to which a registered borrower is entitled, determined by borrower type as indicated in the patron record. Each library establishes its own list of borrower categories to reflect local conditions. In public libraries, all registered users generally enjoy the same privileges, but in academic libraries, certain privileges, such as length of loan period, may not be the same for faculty and students. In special libraries, privileges may depend on a person's rank in the parent organisation.



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**Borrowing Privileges** – The rights to which a library borrower is entitled, usually established by registering to receive a library card. Such privileges normally include the right to check out books and other materials from the circulating collection for a designated period of time, inter-library loan, use of special collections, etc. They may be suspended if fines remain unpaid. In most public libraries, all registered users enjoy the same privileges, but in academic libraries, certain privileges, such as length of loan period, may depend on borrower status. In special libraries borrowing privileges may be determined by a person's rank in the parent organisation.

**Browse** – This means to look through a library collection, catalogue, bibliography, index, bibliographic database, or other finding tools in a casual search for items of interest, without clearly defined intentions. To facilitate browsing, libraries assign similar call numbers to items on the same subject, which groups them together on the shelf.

**Budget** - The total amount of funds available to meet a library's expenditure over a fixed period of time (usually one or two years). In most budgets, funds are allocated by category of expenditure. In chronically under-funded libraries and library systems, budgeting can be a major source of frustration for librarians and library administration.

**Call Number/Class mark** - Is a special number for each individual book given to serve as the book's address. In other words it is the book's address. The call number

makes it possible to locate each specific book, or where to shelve it properly. The call number works just like the number on a house, which helps to tell what house on the street is owned by what person and where to find it. There are different types of a call number; the most basic is part of the Dewey Decimal Classification System and Library of Congress Classification Number.

**Charging** - The process undertaken by library staff when lending a book to the user. This includes identifying users by checking their identification cards, scanning the barcodes of the books to be borrowed, stamping the due dates on the slip of the book and filing it at the circulation desk. In summary, a charging system is “the method used in keeping records of the loan of books” (Harrold, 1971:139).

**Data Access System** – A web definition of data access system is “the centre for processing information for a population of users who require various portions of this information”.

**Delinquent Borrower** – According to the web definition the term ‘delinquent’ means “a loan that has not been paid by its due date; a loan that is overdue. Every mortgage has a contractually specified date on which payments are to be made which is called the due date. If a borrower has not paid in full by the due date then technically the borrower is delinquent, although, in practice, most loans allow a grace period of between 10 to 15 days, and the borrower will not incur a late penalty if the payment is made within the grace period”.

**Discharging** - The process undertaken when the user returns the book to the circulation desk: checking the due dates and charging overdue fines for overdue books, then cancelling the due dates on the book slips so that they can be used by the next user.

### **Effective and Efficient**

The New Merrian-Webster Dictionary (1989:284), defines the terms efficient and effective. Efficient is defined as “productive of desired effects, especially without loss or waste.” The term effective means: “(1) producing a decisive or desired effect, (2) ready for service or action, and (3) impressive, striking.” An efficient circulation control system, therefore, is a system which functions adequately and cost effectively and produces the intended or expected results in the library. An efficient circulation control system should be able to tell: Who has borrowed a particular item? When is it due? Which and how many books by subject have been borrowed on any particular day? How many books were returned on a particular day? An efficient circulation control system is one which is fit for duty or active service in the library. For the purposes of this study the two terms “efficient and effective” will apply.

**Electronic Security System**—An electronic security system is machine device which prevents illegally borrowed books going out of the library. The electronic security system (book detection system by 3M Company: BSD-M 2300 with 1kHz) is installed at the entrance of the first and second floor of the library. Library staff can choose to install the machine either on the entrance of the first floor or on the second floor of the library.



**Overdue Fine-** This is the total sum of money that a library user pays when he/she does not return library items on the due date. The fine is designed to encourage users to return borrowed materials on time so that they can be made accessible to others. Electronic circulation control system includes a charge, discharge and fines module. The fines module automatically detects and charges for overdue items for each borrower. Charges for lost items can also be applied to the borrower's account.

**Recall Notices** – Loaned materials may be recalled before the end of the loan period if another library user needs them. If the book is out on loan it can be recalled and reserved for a new reader. Recall notices usually take from one week to ten days. The user is notified by mail or telephone when the item arrives.

**Requests** – Requests are distinct from reservations, in that the items are normally available but the reader is not presently at the site. The item would be retrieved from the shelves by library staff and then either be held for collection or sent to the reader. Alternatively the reader can be called by phone to collect the item from the library.

**The Reservation Section-** is located at the circulation desk area of the library. Reservations of textbooks or rare materials are made and are subject to be changed according to the recommendations of the university teaching staff.

**Renew** – To renew a book means to borrow it again for the second or third time.

### **1.10 Organisation of the Report**

This study consists of seven chapters. Chapter one is the introduction to the study. It also includes the problem statement, significance and objectives of this study, operational definitions of key terms used in the study, conceptual and theoretical framework. Chapter two discusses an overview of the study which includes the library collections established in the libraries, library services offered and circulation control systems in place. Chapter three is a review of the literature which focused on circulation control systems. Gaps in the literature have also been addressed. Chapter four presents the methodology and discusses the research design, data collection methods, instruments, sample and sampling techniques and data quality control. Chapter five discusses data presentation and analysis. Chapter six includes a discussion of the research findings and chapter seven gives the summary, conclusions and recommendations.

### **1.11 Summary**

This chapter provided the introduction and background to the area of the study, theoretical framework, conceptual framework, problem statement, objectives of the study, research questions, significance of the study and organisation of the report. Chapter two will be on the library collections and services offered in the libraries that were involved in this study.

## CHAPTER TWO

### OVERVIEW OF THE CASE STUDIES

#### 2.1 Introduction

This chapter discusses four case studies, namely; UDSM and SUA University Libraries in Tanzania and Nairobi and Moi University Libraries in Kenya. The study focused on examining the efficiency and effectiveness of circulation control systems used in the selected libraries mentioned above. Background information on these universities was considered important in order to understand the context in which university libraries operate.

#### 2.2 The University of Dar es Salaam (UDSM)

The University of Dar es Salaam was first established in 1961 as a College of the University of London. In 1963 it became a constituent college of the University of East Africa (Facts and Figures 2005/2006:1). The University of Dar es Salaam was born out of a decision taken on March 25<sup>th</sup> 1970, by the East African Authority, to split the then University of East Africa into three independent universities, one in each country that is Kenya, Uganda and Tanzania. In August 1970, it became a national University by Act number 12, 1970 (Facts and Figures 2005/2006:1). The university was established with three main objectives, namely (Ibid, 1):

*To transmit knowledge as a basis of action,  
from one generation to another  
To act as a centre where the frontiers of knowledge  
could be advanced by scientific research  
To meet the high level human resource needs of the  
Tanzanian society.*

The University of Dar es Salaam is situated thirteen kilometres from Dar es Salaam city centre and occupies approximately 1,625 acres of land. Initially, in 1961 the university consisted of only the Faculty of Law but has since continued to grow. According to (Facts and Figures 2005/2006:1) the university had four constituent colleges and one campus college namely the Muhimbili University College of Health Sciences established in 1991 (formally Faculty of Medicine of the University of Dar es Salaam); the University College of Lands and Architectural Studies (UCLAS), and formerly Ardhi Institute; Dar es Salaam University College of Education (DUCE); and Mkwawa University College of Education (MUCE). The last two were officially established in 2005 to train secondary school teachers in response to the Secondary Education Development Programme (SEDP). UCLAS is now a fully fledged university namely Ardhi University. The College of Engineering and Technology (CoET) was formally inaugurated on 13<sup>th</sup> April 2006. It is the first campus college in the new structure of clusters that the university is aspiring to build. The academic structure of the university also includes the Institute of Marine Sciences (IMS), in Zanzibar.

The University of Dar es Salaam main campus consists of seven (7) faculties: Faculty of Arts and Social Sciences, (FASS); Faculty of Commerce and Management, (FCM); Faculty of Education, (FoED); Faculty of Law, (FoL); Faculty of Science, (FoS); and Faculty of Aquatic Sciences and Technology (FAST). The UDSM includes the following academic units: Bureau of Industrial Co-operation (BICO); Bureau of Educational Research and Evaluation (BERE); Centre for Continuing Education (CCE); Centre for Environmental Studies (CES); Institute of

Development Studies (IDS); Institute of Journalism and Mass Communication (IJMC); Institute of Kiswahili Research (IKR); Institute of Marine Sciences (IMS); Institute of Resource Assessment (IRA); UDSM Computing Centre. Since January 2001 the centre has been registered as UCC (Ltd); and last, University Consultancy Bureau (UCB).

### **2.2.1 The University of Dar es Salaam Library**

The University of Dar es Salaam Library was opened in 1961 as part of the University College, London, and later as part of the University Of East Africa. Initially, it was located at Lumumba Institute of Adult Education and later moved to the current location. In 1970, the Library became part of the University of Dar es Salaam. At the time of the fieldwork the UDSM Library had about 600,000 volumes of books, about 2,800 journal titles, of which only 520 were current titles (UDSM Library Annual Report, 1999). Materials were classified using Library of Congress Classification Schemes, Anglo-American Cataloguing Rules 2 (AACR2) and Library of Congress Subject Headings (LCSH) and arranged on the shelves by class number.

The UDSM Library has a Director who is assisted by three Associate Directors and seven Heads of Sections. The Director is responsible for all administrative and academic work pertaining to the Library while the three Associate Directors are responsible for the day-to-day running of the Directorates of Technical Services (which include reference and document delivery services, acquisitions, cataloguing and classification), Reader Services (which include Law and Circulation Services) and Research and Publications which include special collections like East Africana

and electronic databases like biodiversity and local content. The sections are managed by Heads of Sections who supervise all the professional work. Please refer to Appendix a 2.

### **2.2.2 The Reader Services Section (Circulation Services)**

Previously, there was one central circulation desk with staff manning the desk under the supervision of the Head of Reader Services Section. Users who wanted to borrow books for home use had to pass via that desk. Later on the library was decentralised and each section had its own circulation desk. Reference services including inter-library loans and document delivery services were previously offered in this section.

The circulation desk staff in each section of the library are responsible for all circulation activities that is charging and discharging books and other library materials, compiling statistics of library use and library users, charging overdue fines for overdue books, sending recall notices, processing special reserve materials, registration of new students and staff, orientation, reservations, shelving, shelf-reading and current awareness services. The relevance of this desk to circulation control system is that all the mentioned activities are guided by a set of all policies, procedures and methods used in the execution of circulation services.

The UDSM Library serves undergraduate and graduate students, teaching and research staff and administrators including alumni and other external borrowers. Each circulation desk has a special reserve collection and it is one of the busiest collections containing materials in great demand that are placed on reserve by

lecturers or librarians to ensure their access to all students at any given time. These materials can only be borrowed for a limited time and can only be read within the collection in order to ensure their security. This was designed to ensure security and accessibility by all students. Usually a special reserve card is presented to the librarian on duty at the circulation desk in exchange for one book and the user's card is filed until he/she returns the book. An overdue fine of fifty (50) shillings is charged if the book is not returned after or within an hour.

During that time charging and discharging was done manually using the Browne system. From the 1980s the Reader Services Section experienced several problems. Not only was the Browne system cumbersome but also time consuming and could not cope with the increasing number of students. Circulation activities were also hampered due to lack of follow-up on reservations made by library users, and because membership records were not updated due to staffing shortages, recall notices were not sent regularly to library users.

### **2.2.3 The Reference and Document Delivery Section**

This is a newly formed section and it provides reference services to users, which include inter-library loans and document delivery services, internet services such as online searching of electronic journals, electronic books, and other services including e-mail and CD-ROM services. Training users in information literacy skills and assisting them in how to locate information from the collections are the key functions of the reference section. During the 1991/92 academic year, the Reference and Document Delivery Section became a fully-fledged section with a Head of section

independent of the circulation/Issue desk section. Efforts have been made to update reference materials (which are currently outdated), e.g. subject encyclopaedias, almanacs, yearbooks, dictionaries, handbooks, etc. Reference staff including Senior Library Officers is responsible for manning the reference desk. Tasks performed include referral, assisting with the catalogues (Online Public Access Catalogues), instructing users on search techniques and helping researchers to do online searches. This department is critical for ensuring that users are information literate, and so, can be able to search for the right information on their own faster.

#### **2.2.4 The Acquisitions Section**

The Acquisitions Section is responsible for the acquisition of library materials which include textbooks, journals/periodicals, maps, atlases and manuscripts, documents from international organisations like UNO, FAO, etc, microfilms, microforms, electronic resources, etc. The Acquisitions section is critical for ensuring effective and efficient circulation control system in the sense that the more books that are acquired the more there are to meet a wide variety of user needs.

#### **2.2.5 The Cataloguing Section**

The Cataloguing Section is responsible for cataloguing and classifying library materials. The more efficient the cataloguing system, the easier it is to search for materials in the library and circulation is faster because materials can be located easily by users without wasting time. Prior to 1970 cataloguing was centralised, however, but by the mid 1970s cataloguing was decentralised. In 2000 the Cataloguing Department was abolished and each section was expected to catalogue



its own materials. This is still the practice today. The abolition of the cataloguing department was a big mistake because most library assistants who now join the library lack these skills. This is why the OPAC is full of mistakes. The relevance of the Cataloguing and Classification Department to the circulation control system is that if books are catalogued and classified correctly they can easily be searched in the catalogues, thus speeding the circulation process making it faster and less time-consuming.

#### **2.2.6 The East Africana Section**

The East Africana Collection was established in the 1970's as a legal depository library and its key role is to collect and preserve East Africana material, theses and dissertations submitted at the University of Dar es Salaam, government and United Nations publications, newspapers (both local and international), documents on African liberation movements, periodicals, manuscripts and maps. There is a fair coverage of the other East African countries, particularly statistical and periodical materials published prior to the mid 1980's. Some UN publications have been integrated into other collections such as Law, Reference and Social Sciences. All East Africana materials bear the prefix EAF. If more materials are produced in the East Africana section, book losses in the library will decrease and the circulation sections of the library will be relieved from the heavy duty of serving library users.

### **2.2.7 The Periodicals Section**

The periodicals section was established in the 1970's. It was also responsible for the exchange of periodicals with other universities, both local and international. newspaper titles were also kept in the periodicals collection. Until 1999 access to periodicals was done through the stripdex index which listed periodical titles in the collection by class mark. The stripdex index was time consuming and tiring to update and manage. In 2000, the periodicals section was disbanded and the materials distributed to various sections. The periodicals section had a positive impact on the circulation control system in the sense that periodicals offered library users alternative sources of information and reduced congestion and traffic at the circulation desk, and this also minimised book losses.

### **2.2.8 The Law Section**

The Law Collection provides access to legal materials including law reports, statutes, periodicals and government publications and has its own author and subject catalogues. Law materials can also be accessed via the main card catalogue and the Online Public Access Catalogue. Law faculty and law librarians recommend what is acquired. Until 2000, the law collection was housed on the second floor but later on was moved to the ground floor of the library.

### **2.2.9 The Social Science Section**

The Social Science section is a newly formed section after the abolition of the Cataloguing and Periodicals sections. It has its own circulation desk and a reserve collection for heavily used materials. It includes materials, particularly textbooks and periodicals in the social sciences and humanities disciplines like geography, economics, sociology, education, literature, performing arts, languages and linguistics, etc. This section is a heavily used collection in the university and it needs to have committed staff, particularly those working at the circulation desk, to prevent the materials from getting lost, mutilated or misplaced.

### **2.2.10 The Sciences and Engineering Section**

This is another new section which was formed and was specifically established to keep materials in the sciences and engineering disciplines like zoology, microbiology, botany, physics, chemistry, maths, geology, mining, chemical and processing, electrical and mechanical engineering. It has its own circulation desk and reserve collection for materials in great demand. The introduction of the two sections (Social Sciences and Sciences and Engineering) has a positive impact on the circulation control system since this has led to a reduction of book loss, stealing, mutilation and misplacement of books because there is no more congestion (traffic of users) at the circulation desk. The one central circulation desk was time consuming as it was creating too much work for staff and wasting the time of users.

## **2.2.11 Other Services offered at UDSM Library**

### **2.2.11.1 Photocopying Services**

Due to an increase in student enrolment, shortage of books and other materials, students do a lot of photocopying. The Library has four photocopiers on the first and second floors to facilitate photocopying. Previously, students used to pay Toss. 25.00 per page and staff Toss. 30.00 per page but since 2007 students have been paying TTS 35.00 and staff and external borrowers TTS. 45.00 Per page. The library was forced to increase photocopying charges due to the high cost of photocopying paper, ink cartridges and maintenance of the machines. Photocopying is subsidised for students to minimise theft and mutilation. Photocopying services have both a positive and negative impact on the circulation control system because frequent photocopying leads to rapid wear and tear. However photocopying reduces book loss, theft, mutilation and misplacement.

### **2.2.11.2 Photographic Services**

Photographic services were initially established in order to microfilm university documents stored in the East Africana and Reference Sections. The unit also provides filming, video recording and photographic services. Photographic services are relevant to the efficiency and effectiveness of the circulation control system since they provide identity cards for library users. Microfilming reduces the tear and wears of valuable library resources and reduces book loss, mutilation and misplacement.

### **2.2.11.3 New Developments and Organisational Structure**

A new organisational structure for the UDSM Library was introduced in 2000 (Appendix a 2). The structure for the Library Director and the three Associate Directors for Reader Services, Technical Services and Research and Documentation remained the same but that of the sections changed. An additional section for ICT was added. However, the cataloguing and periodical sections were disbanded. Each section has its own circulation desk and special reserve. By implication this has meant more staff to manage the circulation desks. Thus automation has not resulted in the reduction of human resources, at least for the UDSM Library.

In 1998, the UDSM Library computerised its services using ADLIB software, which was acquired through the Library Information Systems (LIBIS) project, which is supported by Sida /SAREC and MHO. The ADLIB system includes the Acquisitions, Loans Management, Catalogue and Serials Modules. The first task was to enter library user records and library records into the circulation module. Since 2001, the UDSM circulation system has been fully computerised.

### **2.3 Sokoine University of Agriculture (SUA)**

Sokoine National Agricultural Library (SNAL) is situated on the main campus of Sokoine University of Agriculture (SUA). SUA was established on the 1<sup>st</sup> of July 1984 by Parliamentary Act No.6 of the same year. According to Sokoine University of Agriculture Prospectus: The Official Guide (2000/2001), the University was created from the former Faculty of Agriculture, Forestry and Veterinary Science of the University of Dar es Salaam. It is situated 3.0 kilometres from Morogoro town. The

University is currently made up of four (4) campuses namely: The Main Campus and Solomon Mahlangu Campus in Morogoro; the Olmotonyi Campus in Arusha and the Mazumbai Campus in Lushoto.

The main campus has a total area of 3,350 ha of which 2,300 ha are reserved for the University Farm which is used for a range of purposes including training, research and demonstrations, management and production of crops, forest products and livestock. The University also owns Towelo Morning Site (6.0 ha) and the Mvomero (20ha) farms, in the Uluguru Mountains. These sites experience a temperate climate and serve the purpose of training and research purposes (ibid, 2000/2001).

SUA has four faculties and six directorates/institutes. The faculties are as follows:

Faculty of Agriculture with seven (7) departments namely : Departments of Agricultural Economics & Agribusiness, Soil Science, Crop Science and Production, Agricultural Engineering and Land Planning, Food Science and Technology, Animal Science and Production and Agricultural Education and Extension. The second faculty is the Faculty of Forestry and Nature Conservation which has five (5) departments: Departments of Forest Biology, Forest Economics, Forest Mensuration and Management, Wood Utilisation, Forest Engineering and Wildlife Management Programme. The faculty includes Olmotonyi and Mazumbai Training Forests which are led by a Senior Forester who is also a Manager.

The third faculty, Faculty of Veterinary Medicine which has six departments: Departments of Veterinary Anatomy; Veterinary Physiology, Pharmacology,

Toxicology and Biochemistry; Veterinary Microbiology and Parasitology; Veterinary Pathology; Veterinary Medicine and Public Health; and Veterinary Surgery and Theriogenology. The fourth faculty, Faculty of Science runs its courses at Mazimbu Campus. The Faculty has four (4) departments: those of Social Sciences; Biochemistry and Mathematics; Biological Sciences and Physical Sciences.

### **2.3.1 The Sokoine National Agricultural Library (SNAL)**

The SNAL was established through Act no.7 of 1992. According to the Sokoine University of Agriculture Prospectus [2000/2001:317) “the primary objective of the Library shall be the development and maintenance at the University of a system of reference, lending and other library services in agricultural sciences and related disciplines for the benefit of the university community, the needs of agricultural scientists and of the people of Tanzania generally.” Also, subject to any special or general directions of the Minister or the Council, the Library shall have power to serve the library and information needs of agricultural researchers, students, extension workers, farmers and peasants, as well as any other group in need to such information. Its role will be to supervise, coordinate, advice and offer consultancy and liaison services to all cooperating agricultural libraries in the United Republic of Tanzania for the purpose of improving the services they provide, such as reference, bibliography and inter-library loans in the field of agriculture and related subjects and will act as a National Bibliographic and Documentation Centre. The centre will involve a repository of published and unpublished materials on agriculture and related fields, legal deposit rights, indexing, abstracting and compilation of national agricultural bibliography.

### **2.3.2 SNAL's Organisational Structure**

The SNAL's organisational structure (Appendix 3) consists of a Director who coordinates and directs the main activities of the various departments through the heads of the departments. Next to the Director is one Associate Director who assists the Library Director and also acts on his behalf during his absence. The Heads of Departments supervise all the professional and non-professional work in the departments of Information, Research and Documentation which house periodicals, gifts and exchanges, information technology services/documentation and bindery. The department of Reader Services consists of circulation, reference and user education. The Technical Services department coordinates acquisitions of library materials, gifts and donations from national and international donors. Cataloguing and classifying library materials is also done by this department. The library also has a printing unit.

Subject to the Act of 1992 and to the original act, the governance, control and administration of the Library was vested in the Board, which was answerable to the Council through the Senate. The Library was also an Institute of the University. The Library Board consisted of the Director who was the Chairman of the Board and not more than fifteen (15) but not less than ten (10) other members appointed by the respective Ministries, Institutions or Institutes. The Board may co-opt not more than three (3) members from time to time.



### **2.3.3 Collections**

The SNAL has five collections: The general collection (circulated collection), which is under the Reader Services Department, the Periodicals Collection and the Special Collection which is purely for reference and consists of publications mainly from Tanzania and other East African countries. Some of the items in this collection are duplicated in the main (general) collection and can be borrowed [Sokoine University of Agriculture Library Guide, 1994/95:7]. The general collection is relevant to circulation because materials kept in this collection circulate to library users that are they can be borrowed for home reading. The other two collections are Reference and Special Reserve.

A small collection of microfiche and microfilms is kept in the Special Collection and is consulted with the assistance of library staff in the section. The Special Collection includes theses and dissertations, undergraduate special projects, maps and atlases, SUA staff reprints and teaching materials, annual reports, research, consultancy, Tanzania government publications and publications of international organisations dealing with agriculture, such as International Institute of Tropical Agriculture (ITA), International Livestock Centre for Africa (ILCA), United States Department of Agriculture (USDA) and Southern African Centre for Co-operation in Agricultural Research (SACCAR) are housed in the Special Collection. The pace of acquiring materials increased after SNAL was declared a Legal Deposit Library in 1985, making SNAL the third legal deposit library in Tanzania.

### **2.3.3.1 The Reference Collection**

The Quick Reference Collection is located on the first floor and includes reference materials, both general and subject encyclopaedias, dictionaries, yearbooks, directories, handbooks, bibliographies and university calendars and prospectus. These materials can only be consulted in the library. Readers, mainly tutors and researchers in agricultural institutes and research centres use the Tanzania Literature Service (TALIS) which provides photocopies of pages of the content which are then sent to interested persons in the institutes and research centres. They in turn are required to select titles they wish to be sent for ordering by the library.

### **2.3.3.2 The Special Reserve Collection**

This collection is housed at the circulation desk (behind the counter) within the Reader Services Department. The collection contains textbooks and non -book materials reserved by members of the teaching staff for their classes. Reserved materials are borrowed for a limited time and must be read in the Library. Students at SUA are notified by their lecturers of books placed on Reserve. A member of staff who wishes to place books on Reserve has to complete a form ahead of the relevant assignment. Only one book can be borrowed at a time by a student presenting the Special Reserve borrowing ticket issued at the time of registration.

### **2.3.3.2 Photocopying Services**

SNAL provides photocopying services for a minimal fee.

### **2.3.3.3 Automation Programmes**

SNAL was partially automated at the time this study was conducted. Library staff, designed, structured and installed a database called SUALIB using CDS/ISIS software. The SUALIB has an interface for data entry and data search and is user friendly. At the time of the researcher's fieldwork, there were about fourteen thousand (14,000) records in the database. Old materials were in the card catalogue and new materials were electronically available via the OPAC (Online Public Access Catalogue). Priority was given to current books although retrospective books were also entered in the database. Periodicals were entered into the SUAPER database. According to the Library Director Training of staff was not given top priority and so when a problem arises no one can act as a trouble shooter because the library staffs has no knowledge or skills regarding database management. Automation in this regard will assist in running circulation activities faster, and more efficiently and effectively. The activities performed will be accurate and less labour intensive.

### **2.3.3.4 Circulation Control System**

During the researcher's fieldwork, SNAL was using a manual circulation control system. The Reader Services Librarian commented that the Browne System does minimise book losses and boosts staff morale. However, he also noted that if one's circulation control system is manual, it is difficult to maintain proper records for overdue books and so sometimes users with overdue books borrow other books. Furthermore, he commented that sometimes circulation desk staff colludes with library users to steal books, although SNAL has an electronic security system to detect stolen books at exit points. It was not possible to get statistics on book loss due

to poor record keeping. The library also finds it difficult to penalise staff and students who have lost books or have outstanding loans due to lack of cooperation from the university administration because it does not deduct overdue fines from staff salaries or students' book allowances.

Poor communication with Reader Services staff makes it difficult to recover books from delinquent staff and students. Hence, the Reader Services Librarian commented:

*Teaching staff consider themselves to be different from other library users and feel that they need their own special library rules and regulations, something which is not practical.*

The Reader Services Librarian was of the opinion that a computerised circulation control system would improve efficiency, in view of the increasing number of students, and that it would speed up the charging and discharging of books as well as enhancing record keeping. This would enable library users to locate and retrieve information easily and quickly. The less frustration library users experience the more likely they are to utilise library resources with less mutilation and loss of books as well as illegal borrowing.

## 2.4 Moi University

Moi University is the "second state university in Kenya after the University of Nairobi, which started as a Royal Technical College, in the 1950s"(Ondari-Okemwa, 1999:228). When this research was being conducted Kenya had five (5) state universities and eleven (11) private universities. The University of Moi is situated in

the Great Rift Valley, about 300 kilometres north-west of Nairobi. The main campus is situated about 35 kilometres south of Eldoret town. An agricultural community surrounds the university. Moi University was intended to supplement, but not to duplicate, the efforts of the University of Nairobi through training and research in vital scientific and technical fields. According to the Moi Prospectus (1999/2000) Moi had 5,138 undergraduates and 456 postgraduate students, 608 academic staff and 1,335 administrative and support staff. The university has three campuses and one University College affiliated to it. Moi University has eight (8) Faculties, three (3) Schools and one (1) Institute.

#### **2.4.1. Margaret Thatcher Library (MTL)**

The Margaret Thatcher Library (MTL) was initially housed in a wooden building in a country hotel. In 1985 the library moved to its present campus where it was housed in a three-bed roomed house. In 1986 the library moved to the Students' Centre with 1,000 volumes of books. In 1987 the library moved to 2 large rooms in the old academic block with 3,000 volumes. In 1988 the library moved to the Administration and Senate building. In 1990 the Library established three other branch libraries at the School of Environmental Studies (SES), Chepkoilel Campus and at Eldoret campus. Branch libraries serve clientele with specialised information needs who are geographically located away from the main campus.

In 1994 the Main Library moved to the Margaret Thatcher Library building with a seating capacity of 2,500 readers, and one million volumes of books. The library was also computerised including the circulation system. The MTL has three departments,

namely Technical Services, Reader Services and Systems Services. The library has seven collections, including the National Collection which contains materials by Kenyans and on Kenya. MTL also collects research reports written by teaching staff and students, and exchanges publications with other libraries in Kenya. The second collection is devoted to matters concerning refugees from Somaliland, Sudan and Ethiopia. The Special Collection collects United Nations publications and is heavily used by researchers. However, there is a lot of book mutilation in this collection, and so it is a closed access collection. The Law Collection is an open-access collection and is housed on the second floor. Lecturers also donate materials to this collection and some deposit their personal copies for a month or for a semester. The Arts and Humanities Collection is an open access collection and is housed on the first floor and is one of the most heavily used collections.

The sixth collection, Technology and Information Science Collection, is an open access collection and focuses on Science, Engineering, Environmental Studies and Information Science [Librarianship, Publishing, and Information Technology]. The Children's Literature Collection was donated by the British Government and caters for staff members' children. The Short-Loan collection has 2,000 titles (including research papers). Materials in this collection are not permanent. Once they have served their purpose they are withdrawn by the individual lecturers who placed them there.

### **2.4.2 Other Services**

The library also has CD-ROMs, photocopying, bookbinding, printing, photographic and darkroom facilities, children's library, staff canteen, tutorial rooms, seminar and conference rooms, e-mail, fax and telephones which are accessible to all. MTL is fully automated, and uses the TINLIB Circulation System. The Library has a Server which controls everything at the Issue Desk, and stores everything including the Catalogue [OPAC (Online Public Access Catalogue)], Acquisitions, Circulation, Reference matters and Periodicals. The Systems Librarian is in charge of automation. There are times when the system goes down and so, everything fails and the library staffs have to go back to the manual system. At the time of collecting data, MTL was experiencing problems with the software. For example, between 1998 and 2000 the Library failed to collect statistics on library users and library use because TINLIB was not funded. The Systems Librarian was trying to work on the software so that it could produce statistics.

### **2.4.3 The MTL Circulation Control System**

The MTL circulation control system allows the library to register library users by name, admission number (for students) and PF number (for staff), birth date, division, room number, location, telephone number, e-mail address, branch, notes, comments and postal (home) address. These are designed to ensure security of library resources, to facilitate follow-up of delinquent users and to control illegal borrowing. The borrowing ticket shows the user's passport size photograph, name, admission number, signature and barcode. The cards vary depending on the type or category of user and are identified by colour and the barcode number: white is for



undergraduates, green is for postgraduate students, teaching staff, library staff and senior administrative officers, and yellow is for external borrowers.

External borrowers are given a reference by Moi University staff members so that if they disappear with library books, then the referee is responsible for paying for a replacement copy or overdue fines. The electronic security system at MTL prevents theft of library books. Security guards stay close to the electronic security system to ensure that all library materials taken out of the library have been legally borrowed. They check the date due and whether the date due has been cancelled.

The electronic security system functions continuously even when the power goes off because of the standby generator which automatically switches on. If materials are not legally borrowed the alarm is triggered. Security guards count the number of library users coming into the library. These statistics help the library to know at what times the library is busy or not busy for future use. For example, if students demand for longer library opening hours, the statistics can be used to argue the case.

Bags, overcoats, umbrellas and water bottles are prohibited in the library. Security men are responsible for the security of the library. That is why they are the last people to leave the library in the evening and the first people to come early in the morning to open the library. They also keep the front and back door keys. Security guards have form IV (four) and above education and hold a Security and Safety Certificate. The computer at MTL has been programmed to loan the specified number of items to different categories of library users. Undergraduate students and



non-academic staff borrow four (4) books at a time for two weeks (14 days). Library staff, academic staff and postgraduate students borrows six (6) books at a time for a month (28 days) but special arrangements can be made for teaching staff to borrow more than six books. The borrower number is unique, and every library user has his/her own borrowing number which is on the borrowing ticket. The borrower class tells the computer whether the person is eligible to borrow books or not.

The library charges KSh 1.00 for overdue books on short loan. If a user does not pay the fine the transaction will not continue. Overdue notices are printed and sent to library users with overdue books by the Systems Librarian. Normally, three overdue notices are sent per book. If the book is not returned, a letter is sent to the bursar's office to take the necessary action in the case of staff, which basically means deducting the amount for the replacement cost of the book from their salaries. The replacement cost at MTL is the current price of the book and the total overdue fine. Students with overdue books are prohibited from using the library, and will not be cleared at the end of the semester. If a student loses a library card he pays for the barcode which costs fifty (50) Kenyan shillings.

Acquisitions at MTL are centralised but cataloguing is decentralised. Branch libraries at the School of Environmental Studies, Chepkoilel Campus and the Faculty of Health Sciences Campus at Eldoret town catalogue their own materials. Other branch libraries produce their own catalogue cards but they have to send a copy to MTL.

## **2.5. University Of Nairobi**

Jomo Kenyatta Memorial Library (JKML) is situated on the main campus of the University of Nairobi which is located near the city centre, bounded roughly by Harry Thuku Road on the East, University Way and Nyerere Road to the South, Mamlaka Road to the West and Msonga Wai/Nairobi Rivers to the North. [University of Nairobi Calendar 1997-2000:30]. The University has six colleges situated at various campuses. The main campus includes College of Architecture and Engineering, comprising the Faculty of Architecture, Design and Development (ADD) and the Faculty of Engineering; and the College of Humanities and Social Sciences, comprising the Faculty of Arts and Humanities. The Chiromo Campus is located across the Msonga Wai River, some two kilometres from the Main Campus off Riverside Drive.

This campus accommodates the College of Biological and Physical Sciences within which fall the Faculty of Science and the Pre-clinical Medical and Veterinary Departments and the Institute of Computer Science. The Upper Kabete Campus is situated close to the North-Western City boundary off Kapenguria Road and some thirteen kilometres from the main campus. The College of Agriculture and Veterinary Sciences is allocated on this campus. The third campus is the Lower Kabete Campus, which is located about ten kilometres from the Main Campus along Lower Kabete Road. On this campus there is the Faculty of Commerce.

Kikuyu Campus, where College of Education and External Studies is located, “is approximately 24 kilometres from the main campus”. [University of Nairobi

Calendar, 1997-2000:31]. The Kenyatta National Hospital Campus is located about five kilometres from the main campus within Kenyatta National Hospital, where the College of Health Sciences is housed. The Parkland Campus is located at Parklands where the Faculty of Law is also situated. The Institute of African Studies is located next to the National Museum about one kilometre from the Main Campus.

This study focused on the Library on the main campus, which includes the College of Architecture and Engineering and College of Humanities and Social Sciences. Students from the two colleges are the main (primary) users of the library. Students who attend parallel programmes and work in Nairobi City also use this library. JKML was established in “1956 as an academic research library devoted to serving the needs of students and staff. The library system has more than 500,000 bound volumes”. [Student Information Handbook 1999/2000:27]. JKML is also a repository library for government and United Nations publications. It also subscribes to over 3,200 current periodicals (ibid, 27).

The library system is comprised of a central library and various branches, serving institutes and campus colleges. Materials in this library are classified according to the Library of Congress classification scheme with a union catalogue at the central library and branch catalogues at their respective locations. The main users of JKML are staff and students from the College of Arts and Humanities and the College of Architecture and Engineering. Most students from other colleges use JKML and their registration information is also kept at their college libraries. During clearance, at the end of the semester, they are required to clear with the college libraries and any

library they had registered at. It is compulsory for all students and staff to clear with JKML. This is designed to strengthen security.

The JKML has six departments, namely Reference, Circulation, Reserve, Periodicals, Acquisitions, East Africana and Computer Unit. All of these departments are headed by a Senior Librarian who is assisted by Librarians and Assistant Librarians, Senior Library Assistants, Library Assistants and Library Attendants. The above- mentioned departments are related to one another because information flows vertically from the top and vice versa, and also horizontally. Colleges can relate to one another independently of the centre (JKML) and the centre can relate to colleges collectively and individually.

### **2.5.1 Circulation Work at JKML**

Circulation work at JKML was still manual at the time of the fieldwork but plans to automate were under way. They had already identified software known as VUBIS which was developed by the Free University of Brussels. It is a fully integrated system with all the functions. Library staff were working on data conversion and entering it into the electronic system. JKML staff commented that it was a very expensive exercise which was estimated to cost fifteen million (15,000,000) Kenyan shillings. According to the University of Nairobi plans, JKML would be computerised first, followed later by College Libraries. Internet services, CD ROMS, e-mail services were also offered for a minimal fee. The general collection contains materials for borrowing but materials from other collections do not circulate.

The JKML has three types of library users, namely, undergraduate and postgraduate students, academic and administrative staff and external borrowers. An external borrower is supposed to be a graduate of any university who is required to pay a deposit of three thousand (3,000) Kenyan shillings which is refundable and an annual subscription fee of five hundred (500) Kenyan shillings. Library users from any of the public universities in Kenya are allowed to use the library free of charge at the discretion of the Head of the Circulation Department. People who are not affiliated to the University of Nairobi, or JKML pay Kshs. 50/= per day or K.shs. 200/= per month. Anybody who is undertaking private studies in Kenya is allowed to use JKML space. JKML is subsidised by the Kenyan Government. Given the absence of a National Library in Kenya, JKML also caters for outsiders who pay Kshs. 200/= per month. Registration of outsiders is at the discretion of the Head of the Circulation Department. The head interviews them to find out if they are genuine library users. Dependants of University of Nairobi staff are allowed to use JKML at the discretion of the Head of Department. Visiting lecturers, research fellows from the Institute of Development Studies and the Institute of African Studies attached to these institutes, also use JKML collections. Institutional users, i.e. users from other universities in Kenya, for example, Moi, Jomo Kenyatta and Edgerton universities, can borrow materials from JKML through inter-library loans. The Kenyan Government Departments borrow a lot of materials from JKML but they are not charged.

All the above- mentioned categories of library users have a formal agreement with JKML.

All library users at JKML have to register. Once they have registered with the university, they are issued with a student identity card (ID card). The ID card shows all the details of a student, such as name (starting with surname), registration number, signature, faculty, valid date and signature of the Registrar. Later on they are provided with a student's library record card with name, registration number, faculty and department, year of study, date and student's signature. The student then fills in this card. Cards are filed separately for undergraduate and postgraduate students and by year. If a student from another campus within the University of Nairobi system wishes to use JKML they must bring a letter of introduction from their base libraries (college library) in order to register. They can also use the same card to access other libraries.

Staff registration is slightly different. A letter of introduction from the Chairman (Head) of Department is required. The staff identification card is also checked. Members of staff fill in their particulars in the University of Nairobi Staff Library Record which is pink in colour. If a member of staff wishes to register with other libraries he will get a fresh letter of introduction from his Chairman. Staff members are free to use any library. For clearance, there is a special form called "Clearance Certificate" which has to be filled in before they can be cleared. Registration of students takes place on the day the orientation for library users is done. The circulation staff guide students during orientation to the service points and those working within those particular sections. For example, the cataloguing staff explain how the catalogues work, the periodicals staff explain how the section is arranged and how to use materials like indexes and abstracts, and the circulation staff explain

to students what the collections contain, how to use both the manual and the computerised catalogue (OPAC).

External borrowers are asked if they have graduated and if they are employed. Then they fill in their particulars in the external borrower's record card. Thereafter, they are asked to take the card to their employer who fills in their personal details, such as name, signature, address and official rubber stamp or position (e.g. Manager, Accountant, Doctor, etc.). When they return the card they are also required to bring their certificates. After certifying, the Circulation Librarian stamps the card and the user pays five hundred (500/=) Kenyan shillings and three thousand (3,000/=) Kenyan shillings deposit to the Accounts section and is provided with two receipts. Dependants of university staff are not provided with borrowing cards. They use a non-university reader card and do not borrow materials. Academic staff and postgraduate students are allowed to borrow ten (10) books per month, undergraduate students can borrow six (6) books for two (2) weeks and non-academic staff can borrow two (2) books for two weeks. When books are borrowed they are desensitised and when they are returned they are sensitised and the records are withdrawn from the trays and destroyed and the books are put back on the shelves.

### **2.5.2 The Electronic Security System**

The electronic security system at JKML is supervised by Library Attendants. The system detects books taken out by unauthorised users and the safety device triggers the alarm to alert the attendants. However, there are times when the electronic security system does not function properly and unless attendants on duty are alert materials can be sneaked out.

### **2.6. The Book Trade in East Africa**

During the post independence period, most printing and publishing activities were concentrated in Kenya, a settler colony with many European readers. During this time educational needs were expanding, but these were fulfilled by publications produced in Britain which were imported into the country with little or no adjustment for the different needs in the colonies (Nyerembe, M.P., 1995:125). The East African Literature Bureau (EALB) and the East African Publishing House (EAPH) were both based in Nairobi, which became East Africa's publishing centre. While they had branches in Dar es Salaam and Kampala, these only acted as sales offices and as scouts for manuscripts, and no editorial work was performed there (Ibid, 126).

It was not until later that more publishing houses were established to cater for the school market. The Tanzania Publishing House (TPH) was established in 1966 as a joint venture between Tanzania's National Development Corporation (NDC) and Macmillan Educational Publishers. The NDC was a holding company. Also, British-based publishing companies such as Longman, established in 1950, Oxford University Press (1954) and Macmillan (1966) established their subsidiary



organisations in East Africa at or soon after independence mainly for the school market. That means the education system remained colonial even after the attainment of independence. The TPH. was established in order to disengage the Tanzanian Government from the monopoly of foreign publishers. The assumption was that locally published books would be cheaper, that foreign exchange would be saved, and that this would diffuse the monopoly of foreign publishers. However, this was not the case because Macmillan overpriced books published by TPH and this created a bad relationship between Macmillan and the Tanzanian Government. Between 1972 and 1981 TPH did not publish any new textbooks for the Ministry of Education. The conflict between TPH and the Ministry had far-reaching implications for the publishing industry in Tanzania.

During this survey in Tanzania and Kenya, the researcher observed that the largest sales were registered in urban centres, with Dar es Salaam and Nairobi taking the major share. This was due to the comparable economic situation which supported a fairly viable book business in Dar es Salaam and Nairobi. Sales were also relatively high in some urban centres with notable book promotion activities where the majority of people were enlightened about the importance of books. Subsequently, most educational institutions in Tanzania and Kenya were situated in major urban centres. However, the book business in Kenya had picked up since the 1960's. Kenya by then had over 600 bookshops, about 5 major distributors and a number of street vendors spread throughout the country (Makotsi and Nyariki, 1997:30). Besides this, grocery supermarkets began to sell books. Makotsi and Nyariki (1997:30) also have the following opinion of bookshops and booksellers in Kenya:

*Although the book business in Kenya seems to have picked up over the years, the existing bookshops cannot be said to be sufficiently and effectively serving the book needs of Kenyans. The major problem is that most booksellers are untrained and hence lack the professionalism and aggressiveness required in the book business. The booksellers (book distributors and street vendors) lack sufficient knowledge of the trade, and exhibit negative tendencies like marking up too highly or stocking poorly. Furthermore, most bookshops are concentrated in urban centres thus leaving the rural areas poorly served. In addition, most booksellers do not market and promote their products adequately.*

The above arguments show that the output of the publishing industry of the two countries is insufficient to meet the academic needs of the population. One of the factors which has contributed to this state of affairs is that the industry lacks the capacity to publish locally essential reading materials and instead the bulk of academic books are imported from overseas. Consequently, the prices of books, periodicals and other reading materials are too high for the majority of university communities. Furthermore, this problem is accentuated by the periodic devaluation of the shilling.

This chapter is relevant to this study because it has outlined the main activities of the selected university libraries which are related to circulation control systems. The brief account of the publishing industry in both Tanzania and Kenya is also relevant to the study because it gives the reasons for the absence of academic works in the bookshops and publishing houses, thus making it necessary for the majority of the library users to depend on the Main University Library when looking for information for pursuing their academic programmes.

## **2.7. Summary**

This chapter has provided background information on the four libraries surveyed, activities of the book trade, prospects and constraints and how the underdeveloped book trade infrastructure impacts academic libraries in the two countries surveyed. The chapter has also examined the services the libraries provide, including collection development, automation programmes, photocopying services and the organisational structure of the libraries. The role of bookshops and publishing houses in East Africa has also been examined to find out how these affect academic programmes run at the selected universities.

The purpose of this chapter was met because the circulation control systems used by the surveyed libraries and the problems of the publishing industry in both Tanzania and Kenya have been identified and discussed and all these are in line with the topic of the research.

## **CHAPTER THREE**

### **LITERATURE REVIEW**

#### **3.1 Introduction**

This chapter reviews relevant literature on circulation control systems in libraries worldwide, with particular reference to university libraries, and establishes the research gap. The study focuses on circulation control systems used in these libraries, thus reviewing some of the literature related to the topic of the research. The resources reviewed cover the period between 1969 and 2007, and they include both current and retrospective sources. The review of the literature is organised around broad themes, which include manual circulation control system, computerised circulation control system, security of library materials, methodology for assessment, socio-economic factors contributing to book theft, costs and under-funding. The chapter concludes with a statement concerning the research gap.

#### **3.2. Manual Systems**

Anderson (1970), Boss (1979), Womboh (1991) and Abukutsa (1977) have all made significant contributions to the understanding of library manual circulation control systems. Boss, (1979:19) argues that “libraries should not choose a new circulation system by merely eliminating its deficiencies, but should begin with the level of its budget”. Boss' study compared manual, mechanised and computerised circulation control systems including the Browne manual circulation control system. He notes that a very large number of libraries, including many with more than 250,000

circulations annually, continue to function effectively without automating circulation activities. This study seems to imply that the Browne system of circulation in itself is not at fault.

Womboh (1991) outlined the weaknesses of the manual circulation control systems, that is, the Browne System, the Newark and Modified Newark Systems used in Nigerian University Libraries. Based on the inadequacy of the prevailing systems, Womboh recommended that Nigerian University Libraries should migrate to computerised circulation control systems. He was of the opinion that:

*The means by which the library service is operated  
can adversely affect the quality of service, no  
matter the quality of the staff, (1991:116).*

Thus Womboh, acknowledging the inherent weaknesses of the manual circulation control system, concluded that modern technologies could minimise the problems encountered in manual circulation control systems.

### **3.3. Automated Systems**

Various studies have been conducted on the effectiveness of automated (computerised) circulation control systems, in both developed and developing countries. Abukutsa (1974), Alabi (1985), Ajayi (2002) and Mathews, et. al. (1990) described the microcomputer circulation control system and how it functions. They stressed that a good circulation control system should provide more than basic functions and should include patron registration, checkout, check in, overdue notices and statistical reports, renewals, recalls and other frequently encountered situations. These

guidelines can be considered in planning and implementing an automated circulation control system in any library. Mathews, in his study, discussed what is required in order for a good circulation control system to function and provides guidelines for planning and implementing an automated circulation control system.

Fouty (1993) focused on online circulation control systems and their impact on privacy of information contained in patron databases, and recommended that policies are needed to protect privacy of information through the use of passwords and ID numbers to limit possible access to patron records by unauthorised users. De Corso and Russo's study (1994) focused on the planning and implementation of circulation control systems. They also outlined three phases in tackling the problems of circulation control systems. Harris (1991), Scherdin (1991), Leslie (1994), and Bahr (1991) focused on automated circulation control systems with special attention to the electronic security system, a recent technological development, which allows librarians to protect audiovisual materials. According to scholars who have studied these issues, consideration of an electronic security system is a first step towards automation. For example, Harris (1991) cautioned libraries on the disadvantages of the electronic security systems and how to handle associated problems.

Were (1990) highlighted factors that contribute to the increased use of computers in information centres in Kenya and the success or failure of computerising library services in Kenya and attributed these failures to the low priority given to libraries by the Kenyan Government as well as the ignorance of librarians concerning computerised

library systems, leading to their heavy reliance on computer centre staff who know very little about library systems.

The Browne system being manual is slow, cumbersome and too time consuming in charging and discharging books from the library for library users. According to Fulton Daily News (2002), the online process is faster than the manual system that has been in place for years. Also, the renewal of library books will be faster and therefore more convenient for both library users and library staff. Ajayi (2000:58) states the following on library computerisation:

*The main objective of library computerisation is basically to integrate all library activities to ensure easy and accurate retrieval of information, and to facilitate resource-sharing among libraries, to improve technical processing efficiency, to put library space into more efficient use, to generate reports through print-outs and to promote and improve budgeting, staff scheduling, collection analyses and development. Similarly, to hook up with other similar institutions worldwide through the internet.*

Akinfolarin (1992) argued that poor security in the library especially at the exit gates, is one of the main causes of book losses in libraries. It is gratifying to note that a few libraries in Tanzania and Kenya are now applying information and communications technology to facilitate storage and retrieval of information and circulation control. However, effective use of ICT in these countries is often constrained by inadequate budgets to run and maintain the system, poor power supply and lack of trained computer personnel. Ajayi (2000), therefore, recommended that it is important for parent institutions and library managers to have a proper systems analysis before

embarking on full-blown large- scale library computerisation. Anderson (1970) postulates that usually actions of delinquent borrowers are not due to defiance of principles and regulations or acts against the establishment rather sometimes users forget to bring back borrowed items and all it requires is a reminder and they would bring them back promptly. Anderson concludes his belief by stating that this is why most libraries send out overdue notices before users are penalised.

### **3.4 Manual versus Computerised Circulation Control Systems**

Mwinyimbegu (1988: 27-77) examined the reasons for the failure of the Browne circulation control system at the University of Dar es Salaam Library and recommended a computerised circulation system for speed and accuracy. Mwinyimbegu's study is important as it compared the effectiveness of manual circulation control systems and computerised circulation control systems in Tanzania.

Alabi (1985) conducted a comparative study of the Browne manual circulation control system and the experimental automated circulation system in a university library in Nigeria. He noted that the automated system was costly but effective in providing up-to-date and accurate data required to monitor library stock and that such systems were faster, less time consuming and less labour intensive.

### **3.5 Security of Library Materials**

Abukutsa (1974) noted that the University of Nairobi Library did not impose penalties on students and teaching staff for violation of library loan regulations. This tends to limit the librarian's ability to control circulation of materials. Abukutsa's main concern



was the security of books and unauthorised borrowing, since the library did not have security detectors at exit points. He also noted that, unlike at the Nairobi University, all students and staff at Lancaster University were treated as equals when it came to borrowing library materials, as well as in terms of overdue fines and suspension of library privileges for persistent violation of library loan regulations (1974).

Abukutsa (1974) further noted that, in order to curb book theft, illegal borrowing and mutilation, library guards or attendants must be employed to guard exit doors and to physically inspect books and other materials leaving the library to ensure they were legally borrowed. Abukutsa could not estimate the success or failure of security precautions because stocktaking had not been done for more than a decade at Nairobi University.

Nwamefor (1974:244) described book theft and mutilation as “anti-social acts which are universal and persistent in spite of the orientation talks given to fresher on the care and treatment of books.” For example, he commented: “gone are the days when university students were regarded as gentlemen who pose no threat of any kind to library collections.” Nwamefor attributed book loss in Nigerian University Libraries to students themselves but he did not give reasons for the increase in book theft.

Luurtsema (1997:21) argues that, “When properly used, electronic security systems can deter book theft in academic libraries as long as policies and procedures are put in place to guide circulation staff what to do when the electronic security systems sound the alarm”. He also argued that modern technology could actually be a liability unless

library staff are trained to handle situations when the system is triggered, because an electronic security system cannot operate to its full potential if staff do not do their jobs effectively. For example, Luurtsema, (1997:23) for example, commented:

*An electronic security system will never be able to operate to its full potential in an academic library without all staff understanding proper procedures, specified in written policies; being trained on how to implement these policies through uniform procedures in everyday situations; being subjected to some form of follow-up auditing on a regular basis to determine if the employees comprehend and follow the library's policies.*

Most circulation desk staff in academic libraries, particularly in African countries, are Library Assistants (Para-professionals). They must be trained in order to perform their duties effectively. In cases where Library Assistants are not responsible for electronic security control systems, professional staff are the ones who are responsible. Generally, Luursema (1997:25) suggests that

“all circulation desk staff must be conversant with library's policies and procedures and on how to handle possible theft situations when signalled by electronic security systems. Training could be offered through video instruction. This would allow trainees to see procedural steps in action, while simultaneously engaging the senses”. Further, Luursema (1997) also attributes problems of security of library materials to unqualified library staff who do not know how to respond to the electronic security system when it is triggered. Abid (1991), Reed (1991) and Dane (1991) examined security of materials in Art Libraries of the United States, as well as delinquent library users, and how to prevent thefts through the use of electronic security systems. Abid (1992) also argues that library staff should respond to the alarm raised by the electronic security systems in order to prevent unauthorised removal of magnets in the books.

### **3.6. Methodology for Assessment**

Several authors have written on the methodology for assessment. Warwick (1992) reviewed some of the approaches used to provide help to librarians in charge of loans and duplication policy. The study considered analytic and statistical models, stochastic models and simulation models, and their contributions in each area.. The models were utilised to measure library performance, library effectiveness and user satisfaction. In the context of this study the models can be utilised to measure user satisfaction and the effectiveness and efficiency of circulation control systems used by the university libraries

Brooks and Forays (1986) evaluated the smoothing of forecasting methods with academic library circulation time-series data to find which of these simple computational methods could be recommended for academic libraries. They recommended a single exponential method, and the Browne parameter linear exponential smoothing method.

Carver (1992) traced the organisational shifts that have occurred in academic libraries with respect to circulation control systems and possible reasons behind the formation of access service departments.

Williams and Corum (1974) did a study on "Book Usage and Book Loss at Belk Library at Appalachian State University" and how to ensure security of library materials by measuring the effectiveness of efforts to reduce that loss. Williams' and

Corum's study used a small sample (1.00%) which was 77% accurate in determining the number of books lost.

Kiger (1995) focused on attribute sampling and illustrated how a librarian might use attribute sampling techniques in assessing the accuracy of library circulation control system in reflecting book check out, whether new items were classified correctly, or whether new items were barcoded correctly. Kiger defined the term 'incorrect' as a record in the system showing a book item to be "on loan" when in fact it is not (1995:232). This study is invaluable because attribute sampling procedures can be profitably applied to collection management issues. Attribute sampling can also be well adapted to the analysis of large populations of library users..

Schlumpf (1991) conducted "Matrix Model of Circulation Control", which is a general abstract model of circulation control systems, with the practical role of determining whether the application of this model would result in improved and efficient circulation control systems and procedures. The author concluded that:

*A satisfactory theory for circulation control procedures is needed for library circulation control and all sufficiently similar operations. Such a theoretical basis can provide a perspective by which librarians and other information professionals can better understand and discuss the fundamental concepts of circulation control (1991:558).*

Warwick (1992); Brooks and Forays (1991); Williams and Corum (1974); Kiger and Schlumpf (1995) focused on the methodology for assessing, for example, mathematical models, forecasting methods, attribute sampling and matrix models, and how they can be used to improve circulation control systems and procedures. The methods used in these studies can be used in the current study to improve the efficiency

and effectiveness of circulation control systems and procedures applied in the selected university libraries of Tanzania and Kenya.

### **3.7 Factors Contributing To Book Theft : Socio-economic factors**

Even in the United States, where most of the libraries are computerised, book theft and book retention by patrons is common. This reinforces the need to look at socio-economic factors in evaluating the effectiveness of library circulation control systems. Anderson (1970) studied delinquent borrowers in an academic library in order to find out the reasons for this behaviour at the University of Illinois Library. The study concluded that all things being equal, the greater the stimulus to share resources in an academic library the greater the willingness of delinquent borrowers to return materials because they forget to share resources until reminded. Thus Anderson attributes the problem of overdue books to forgetfulness but did not consider the economic aspect of this problem.

According to Bello, (1998) security of library collections is of growing concern to all types of libraries. The social dimensions of book theft are numerous, often with negative consequences including early closure of the library, lack of photocopying facilities, inadequate allowances for books and photocopying, poor library services and lack of computerised library services. Hence Bello (1998:379) commented:

*The threat to intellectual property through theft and mutilation has posed tremendous challenges to the library profession worldwide. As a consequence there is vast literature on a range of problems concerning library security, with emphasis being placed on theft and mutilation. Because of this insecurity, human intellectual heritage is an intractable problem, researchers are*

*always seeking for lasting solutions, but with limited success.*

Ahiakwo and Obokoh (1987) framed sixteen questionnaire items based on eight assumptions on why teaching faculty retain library books longer than is allowed. They used the cluster method of factor analysis to establish key attitudinal factors. Their findings revealed two primary factors: (a) forgetfulness of library obligation over long duration of book use, and (b) personalisation of library materials. They concluded that the forgetfulness tendency should be rigorously explored and addressed and that faculty members should be made to pay for overdue library books. They also recommended that forgetfulness and why faculty members do not return library books should be looked into critically from an economic perspective.

Akinfolarin (1992) attributed book theft in libraries to poor economic conditions of students, and poor security, especially at the exit gates and collusion between students and security staff at exit gates, including lack of regular stocktaking which blinds librarians to their losses. Akinfolarin concluded that book theft in libraries can be minimised by introducing electronic security systems, performing regular stocktaking, and, thereafter, displaying on public notice boards, lists of all missing books by subject areas which should be sent to Heads of Departments and Deans of Faculties.

Abukutsa (1974) argues that it would require the expertise of sociologists and psychiatrists to determine the reasons which drive human beings to steal things including books. He also condemned mutilation of library books and periodicals. Abid (1991), Reed (1991) and Dane (1991) looked into the problems of book theft by

delinquent borrowers in the United States and the preparedness and planning, insurance and security systems needed to curb book theft. They also recommended that staff respond to the alarms and prevent unauthorised removal or demagnetisation of the targets in the books.

Dane (1991) points out that, Art Libraries borrow materials legally but deep down they have no intention of returning the materials, despite follow-up by mail, phone, or fax.

He comments:

*No threat from the library staff is adequate to shake loose the cherished texts. The end result is the same dreary story. Namely the information is not available to others, creating an aristocracy of those who are rich in information and others who can only stand around and wait" (1991:179).*

Reed (1991) found that essentially, when users fail to return books they are denying others access to those resources.

Abareh (2001) examined why students steal, damage or lose library books and how best to reduce theft, loss and mutilation in a university library in Nigeria, including students' attitude to theft and penalties. Findings revealed that the ultimate aim was to reduce the frustration of users who report the unavailability of one textbook or another even when all access points to and from the library were checked diligently. The study recommended strategies to curb book theft and mutilation.



### **3.8. Costs**

Several studies have been conducted on "Costs". For example, Jensen's 1971 cost analysis and usage study of reserved materials at the University of Arizona Main Library found that students do not read reserved materials as expected. Therefore, he recommended the closure of the reserve collection, integration of materials from the reserve collection to other departments in order to cut down on costs and ensure efficient use of staff and time. In most cases, special reserve collections ensure access to materials in great demand to a wider audience and maximum security of such materials.

Alabi (1985) identified eight different circulation activities for evaluation and the direct labour cost of circulating a book. Findings revealed that automated library circulation control systems are less labour intensive than manual circulation control systems, but the overall unit cost of books in circulation with an automated system was higher than with a manual system (\$0.59 and \$0.49, respectively). In addition, automated circulation control systems are more expensive to run than manual circulation control systems in terms of equipment and services. Nonetheless, automated circulation control systems are more effective and can provide up-to-date and accurate data for the monitoring of the library stock.

### **3.9. Under-Funding**

Under-funding is a common phenomenon in all types of libraries, particularly in developing countries. For example, Samoff (1977:22) notes that neither the University nor the Tanzanian Government provides sufficient funds to sustain academic



programmes and pay better salaries to its staff. As a result the University depends mainly on donor funding

Financial constraints are not limited to library budgets but extend to staff salaries, which force academic staff members to take on consultancy work to make ends meet. Hence UDASA (1990:26) commented:

*The new salary scale has utterly failed in providing at least a living wage for us. After several years of patient waiting in the expectation of improvement, we now have a take-home packet, after taking into consideration inflation, equal to little more than the six days' subsistence. This is exactly what we complained about to our Chancellor in 1987. If a full professor takes home today less than \$ 75 a month, his financial position is still worse than it was when he joined this University in the 1960s.*

Financial constraints on the part of students tend to encourage book theft, mutilation, illegal borrowing, extended overdue as well as overuse. This is because students cannot afford to buy books given their meagre book allowances. Similarly, Samoff (1977) noted that neither the University nor the Tanzanian Government provides sufficient resources to sustain academic programmes or pay better salaries to its staff. As a result, the University depends on foreign (donor) funding and technical assistance. Low salaries, inadequate book allowances and low budgets contribute greatly to book loss and mutilation.

### **3.10 What are the Main Issues Addressed in This Review?**

This literature review highlighted the problems confronted by different types of libraries with a focus on manual and computerised (automated) circulation control systems. According to the reviewed literature, computerised circulation control systems are more costly, but are accurate, efficient, faster and less time consuming than manual circulation control systems.

### **3.11 Research Gap**

The main purpose of this literature review was to find out what has been written on circulation control systems in relation to this topic and what needs to be done about book loss in libraries. Most of the literature reviewed did not examine the efficiency and effectiveness of circulation control systems. This is the gap that this study intends to fill.

It is also further observed that computerised circulation control systems are more efficient and effective than the manual circulation control systems. However, the literature has not discussed the contribution computerised circulation control systems have made to the provision of better library (circulation) services in the context of Tanzania nor Kenya. Neither has the literature discussed factors such as computer and information literacy that may assist library users in searching for appropriate information from the library faster and at the right place and time. The literature reviewed does not reveal whether library users are comfortable with the current circulation control systems or not. The literature also falls short in confirming whether library users are comfortable in using the computerised circulation control

systems. In other words, do they have the skills to use the computerised system? What is the impact on library users of introducing computerised circulation control systems to university libraries in Tanzania and Kenya? In summary, the sources reviewed in the literature do not relate to the objectives and research questions outlined in this study. This research seeks to address these issues, among others, that are identified in the literature review.

### **3.12 Summary**

This chapter provided the views of various scholars on circulation control systems (manual and automated) used in different types of libraries: their advantages and disadvantages in terms of efficiency and effectiveness in curbing book loss, theft, and mutilation. The chapter also established the existing gap in the literature.

## CHAPTER FOUR

### RESEARCH METHODOLOGY

#### 4.1 Introduction

This chapter discusses the research methodology which was applied, the study areas, population, sample and sampling technique, research design, instruments and data collection methods, data quality control, ethical issues and limitations of this study.

#### 4.2 Areas of Study

This study was conducted in Tanzania and Kenya, between March and June 2000 in four purposively selected public university libraries, namely UDSM Library and Sokoine National Agricultural Library (SNAL) in Tanzania and Jomo Kenyatta Memorial Library (JKML) and Margaret Thatcher Library (MTL) in Kenya. These institutions were selected because they used mixed circulation control systems, that is, manual and automated, and despite this all of them experienced book loss.

#### 4.3 Research Design

Leedy and Ormond (2001) define research design as:

*A complete strategy of attack on the central research problem. It provides the overall structure for the procedures that the researcher follows. It gives a perspective on what is involved and how to make it feasible as it increases efficiency in the research carried out.*

This study examines the efficiency and effectiveness of circulation control systems in selected university libraries in Tanzania and Kenya. The study used a survey research design because it was deemed appropriate for a very large sample.

The qualitative survey enabled the researcher to get first-hand views, ideas, feelings and concerns of various levels of library users. Secondly, qualitative research was preferred because respondents were able to express their views genuinely without restriction or control. Thirdly, qualitative research helps researchers understand people and the political, social and cultural context within which they live. Kaplan and Maxwell (1994:45-68) argue that the goal of understanding a phenomenon from the point of view of the participant and its particular social and institutional context is largely lost when textual data are quantified. Denzin and Lincoln (1998:105-117) concur:

*Qualitative research is best because researchers study things in their natural settings, attempting to make sense or interpret phenomena in terms of the meanings that people bring to them. It usually starts off with how or what is. It is the initial foray into the topic and tries to describe what is going on. The questions try to elicit a greater understanding of perceptions, attitudes and processes.*

#### **4.3.1. What Type of Research was Conducted in This Study?**

This research was mainly qualitative in nature. According to Babbie and Mouton (2001:270):

*Qualitative research deals with the study of human action from the perspective of the social actors themselves. The primary goal of studies using this approach is defined as describing and understanding rather than explaining human behaviour.*

Babbie and Mouton (Ibid, 270) stated that Qualitative Studies typically use the following:

- (a) *Qualitative methods of gaining access to research subjects, for example, theoretical selection of cases, snowball sampling.*
- (b) *Qualitative methods of data collection , for example, participant observation, semi- structured interviewing, and the use of personal documents to construct life stories*
- (c) *Qualitative methods of analysis, for example, grounded theory approach, analytical induction, narrative analysis, and discourse analysis.*

Qualitative Research is especially appropriate to the study of those attitudes and behaviours best understood within their natural setting as opposed to the artificial setting of experiments and surveys. Qualitative research is well suited to the study of social processes over time. The qualitative researcher wishes to study events as they occur, rather than having to reconstruct them in retrospect. He or She attempts to view the world through the eyes of the actors themselves (Ibid, 270). He or She attempts to become more than just a participant observer in the natural setting that is being investigated. He or She has to make a deliberate attempt to put himself or herself in the shoes of the people he or she is observing and studying and try and understand their actions, decisions, behaviours, practices, rituals and so on, from their perspective (Ibid, 271). Babbie and Mouton (Ibid, 271) are of the opinion that description and understanding qualitative researches have always primarily been interested in two issues as follows:

- i. *Describing the actions of the research participants in great detail, and then*
- ii *Attempting to understand those actions in terms of the actors' own beliefs, history and context.*

#### **4.4 Population Sample**

Pegano (1990) describes a population of the study as “the entire group of people on which information is being collected.” The population of the study involved three distinct groups of respondents, namely, library users, library staff (both professional and paraprofessional) and University Library Directors (or University Librarians). Library users consisted of students (both postgraduates and undergraduates), academic and administrative staff. These were selected because they are the main library users, and so, they were in a better position to know about the problems related to circulation control systems. In this respect their understanding of the efficiency and effectiveness of the circulation control systems and their attitudes towards library services was important to this study. The second group of respondents consisted of library staff from the Academic cadre to Senior Library Assistants with a diploma in librarianship. Among this group priority was given to Reader Services Librarians, Systems Administrators (Analysts) in the case of computerised libraries and other library staff working with the Reader Services and Acquisitions Departments. These were more likely to know the functioning of circulation control systems because, apart from working at the circulation desk, they are also professionals. Library staff from the Acquisitions Department was expected to provide information on book budgets. The third group of respondents consisted of University Library Directors (University Librarians), who provided information on book budgets and problems (encountered in the library) which are connected with finance.

## **4.5 Sampling Methods**

### **4.5.1 Sample and Sampling Technique**

According to Babbie (1994:188), sampling “is the process of selecting observations and that sampling error is reduced by two factors in the sample design. Further that a large sample produces a smaller sampling error than a small sample”. A homogeneous population produces samples with less sampling errors than a heterogeneous population.

Systematic sampling with a random start was used to select respondents for this study, whereby every tenth element in the total list was chosen systematically for inclusion in the sample. This is because the researcher felt that this system, under certain conditions, would be more accurate than simple random sampling and other sampling methods.

### **4.5.2 Sampling Frame**

In this study the population samples were approximately as follows:

1. 4,216 respondents from the University of Dar es Salaam
2. 2,171 respondents from the Sokoine University of Agriculture
3. 9,254 respondents from University of Nairobi and
4. 5,325 respondents from Moi University

These numbers were proportionate to the total number of users in each university. A multi-stage cluster sampling technique was used to select a representative sample of respondents from students, academic and administrative staff. Using staff and student



lists a sample of respondents from each faculty and later each department was selected. From each university 150 respondents were selected making a total of 600. In summary, the sampling process for library users was as follows:

1. Lists of students, faculty and administrative staff were identified. From these, a sample of students, faculty and administrative staff was selected.
2. 150 respondents from each university were drawn up and these were selected using systematic sampling.
3. Library staff as information providers were selected based on their qualifications and professional duties. Four professional librarians and four para-professional library staff (8 library staff), a Library Director and a Systems Librarian (making a total of 10 library staff) were selected from each library.
4. University Library Directors (University Librarians) were selected systematically according to their responsibilities (as heads of university libraries). Systems Librarians were selected according to their professional responsibilities.

#### **4.6 Data Collection Methods**

Data for this survey was collected using a combination of methods that is a self-administered questionnaire, structured interviews and observations, where the researcher could observe and at the same time participate in what she was observing. Triangulation (use of more than one method) was therefore, considered appropriate to ensure the validity and reliability of the data collected and to be in line with the problem statement and objectives of this study. It has also been used because each method has its own strengths and weaknesses. Moreover, as Kothari (1992) points out “the appropriate method of selecting an appropriate technique for collecting data

depends on the nature of a particular problem, the time and resources available along with the desired degree of accuracy.”

There were two types of data that were collected in this research, and these were as follows:

#### **4.6.1 Primary Data**

Primary data can be defined as data consisting of original research representing new ideas and knowledge and constituting latest available information (new research findings). Circulation control systems and how library staff applied them in offering circulation services were observed through participant observation. This was a very useful method for gathering information about the circulation control system used by university libraries surveyed. The information obtained verified and supplemented information gathered through interview and self-administered questionnaire methods. Primary data was collected through a survey using a structured self-administered questionnaire with open-ended and closed questions, as well as through face-to-face interviews and observations.

#### **4.6.2 Secondary Data (Content Analysis)**

Secondary data can be defined as data that is compiled from primary sources of information. It includes modified information from the original source to suit a particular group of users. Secondary data was collected through library research: both published and unpublished resources including books, journal articles, research reports, library annual reports, university handbooks, calendars and prospectuses.

Internet resources were reviewed and major points summarised. Information from the internet and the worldwide web was instrumental in analysing the literature which was available online. The type of information extracted online included the definitions of scientific terms used in circulation control systems, how both manual and computerised circulation control systems have impacted library users in obtaining information from the library and the challenges they faced, theories about circulation control systems, different models and strategies used by other countries and gaps in the literature.

Secondary data can also be termed content analysis, which, according to Berelson, (1952:18) “is a research technique for the objective, systematic and quantitative description of the manifest content of communication.” Content analysis was therefore applied to supplementary source data to develop an independent line of validation for the data obtained..

#### **4.6.3 Instruments**

##### **4. 6.3.1 Questionnaire Guide**

1. A structured questionnaire with both open-ended and closed questions was administered to selected respondents. This was deemed appropriate in collecting data from a wide and scattered population around the university campuses. In addition, because most of them had a busy schedule, this gave them the opportunity to fill out the questionnaire in their own time. However, this contributed to low return and low response rates initially. In order to solve this problem, the researcher employed two research assistants to speed up the collection of the questionnaires from respondents.

Information sought included the efficiency and effectiveness of the circulation control systems, socio-economic conditions of library users, attitudes of library users and library staff towards library services, the state of the publishing industry in the respective countries, the quality of the library collections and library book budgets.

Each respondent was asked to state the time and date when the questionnaires would be ready for collection. Some of them filled out the questionnaire and it was collected on the date stated. However some of them needed more follow-up. This was a tiring and time-consuming exercise. Of the 600 questionnaires, 494 (82.22%) were returned. This shows that the return rate was satisfactorily high.

Although time consuming, a questionnaire has several advantages in the sense that it allows the researcher to cover a wider area and to obtain information from a large and scattered population simultaneously. Self-administered questionnaires also allow respondents the freedom to respond to the questions without pressure. Selltiz (1966:238) and others state that “the questionnaire method requires much less time and skill to administer and can be mailed or handed to respondents with minimum explanation”. It also allows respondents enough time to consult records or other sources for information not readily available”. In addition, respondents may be willing to answer sensitive questions because of the anonymity. Selltiz (1966:240) comments:

*Respondents may have greater confidence in their anonymity, thus feel free to express views they fear might be disapproved of or might get them into trouble. If a questionnaire is presented as anonymous and there is no apparent identifying information the respondent may feel greater*

*confidence that his replies will not (or cannot) be identified as coming from him.*

Moreover, in this study closed questions simplified data entry and analysis since they were easy to code and also were restrictive, quick and direct. The open-ended questions gave more room for respondents to express themselves than the closed questions, giving more detailed information than the restrictive questions. They also allowed respondents to express themselves freely, thus enriching the responses.

A major disadvantage of a self-administered questionnaire with closed questions is that it is restrictive and limited to the prearranged questions. Another disadvantage has to do with the slow response and low return rates, varying from about 10 to 50 percent. That is why the researcher handed out the questionnaires to respondents, noting down their names and asking them the date and time which was convenient for them to return the filled in questionnaires.

#### **4.6.3.2 Face-to -Face Interviews**

Face-to-face interviews were conducted with the University Library Directors (University Librarians) on the following aspects: history of the library, organisational structure, the role of each department in the library, library budgets, collections and services, the state of the publishing industry in relation to the collection development, economic status of library users [students, academic and administrative staff] in relation to book loss in libraries.

The interview schedule was sent to University Library Directors (University Librarians) in advance so that they would have an understanding of the topic and prepare themselves before the date of the interview. Any question which needed clarification was clarified on the date the interview took place. The researcher took notes during the interviews which were summarised at the end of each interview. The interviews took about two hours per session.

The advantage of the interview method is that the interviewer and the interviewee are both present as the questions are asked and answered, giving the opportunity for greater flexibility in eliciting information. Also, the interviewer has the opportunity to observe both the subject and the total situation to which he is responding. Darling (2007) states that, like other qualitative methods an interview allows the interviewer to establish the context of a client's concerns and, unlike observation, it can assist the researcher in focusing on and clarifying information. Darling (2007) comments that, "the value of interviewing, however, depends on the skills of the interviewer, asking the right questions and asking them well and on the interviewer's ability to establish rapport. The interviewing situation offers a better opportunity to appraise validity of reports. The interviewer is in a position to observe not only what the respondent says but also how he/she says it." Face-to-face interviews allow the respondent to express feelings or to report behaviours that are customarily disapproved of. Therefore, the interview method was considered appropriate for this study. Bordens and Abbot (1996:198) state that structured interviews tend to be inflexible as opposed to the unstructured one because in a structured interview a researcher may miss some important information. Also, by asking general questions and having participants

provide answers in their own words a researcher may gain less accurate information.

In order to avoid this the researcher used both structured and unstructured interviews.

Face-to-face interviews and the questionnaire method have some disadvantages in the sense that the respondent provides only the information they wish to share. According to Selltiz (1966:236):

*another disadvantage is that, in these approaches, heavy reliance is placed on the subject's verbal report for information about the experiences to which he is exposed and for knowledge of his behaviour; usually the investigator has not observed the events discussed.*

Due to this shortcoming, the researcher used field research or participant observation where she participated in performing the routine work at the circulation desk in order to see how the system works, its advantages and its disadvantages.

The researcher began the interview with a structured format by asking prepared questions, and later on in the interview she switched to an unstructured format, although Bordens and Abbot (1996:198) claim that the appearance of the interview may affect the responses of the participants. Darling (2007) also claims that:

*any information obtained through this method is subject to the biases, both intentional and unintentional of the person being interviewed. Interviews rely on the skill of the interviewer but many people are poor at interviewing although most think that they are good at it.*

However, all this depends on the topic and the people being interviewed. In this case the respondents were Librarians, and so the researcher, being in the same profession, could share experiences with her fellow Librarians. Since the interview was conducted by the researcher alone the results were not affected.

#### **4.6.3. 3 Observations**

Field research or participant observation or direct observation was also used to collect data for this study which means "Rather than observing behaviour from afar, the researcher becomes an integral part of the observed group" (Bordens and Abbot, 1996:160). In this method a researcher remains relatively detached from his or her subjects and records their behaviours without directly interacting with them. In some cases interaction with subjects produces better results (Bordens and Abbot, 1996:160) and (Babbie, 1994:280). In this case the researcher made it clear to circulation desk staff that she was also doing research. This method was designed to produce data appropriate for quantitative (statistical) analysis. A key strength of field research is the comprehensiveness of the perspective it gives the researcher. Babbie (1994:280-281) is of the opinion that "by going directly to the social phenomenon under study and observing it as completely as possible. It is possible to develop a deeper and fuller understanding of it. Moreover, field research is appropriate when studying attitudes and behaviours within their natural setting".

Performing duties at the circulation desk enabled the researcher to obtain information on issues where responses to the questionnaire were biased, ambiguous or complex. By examining the circulation control system, how it operates and its pros and cons, the researcher was able to get relevant information for the problem under study.



#### 4.7 Data Analysis

Data was organised, coded, tallied, summarised, analysed and interpreted in relation to the study objectives and research questions and presented in tables indicating frequencies and percentages. Data for library users, both in Tanzania and Kenya, was computed through the Statistical Package for Social Scientists (SPSS). Qualitative data was calculated manually because the numbers involved were small.

Kothari (1985) defines data analysis as “the compilation of certain indices or measures along with searching for patterns of relationships that exist among the data.” As explained earlier, data from the field was analysed by the use of qualitative and quantitative techniques. The quantitative technique was used because of the need to use numbers to express ratios, and the SPSS was used to analyse the data. The following steps were taken during data analysis:

- (a) Ensured that all the required data was complete
- (b) Became thoroughly acquainted with data to get an overview from which gaps were identified that formed the basis for recommending better strategies for circulation control systems used in university libraries in Tanzania and Kenya.
- (c) Categorised and coded the data
- (d) Interpreted the data and drew conclusions from the data that related to the objectives of the study using SPSS.

#### **4.8 Presentation and Discussion of Data**

This study employed a descriptive method in presenting the data and a combination of questions as they were presented in the questionnaires. Data was presented in tables with frequencies and percentages. The researcher used the descriptive method to present data under each research question that guided the conduct of the study in the form of chapters. Secondly, the researcher used charts and tables for a clear picture of the magnitude of what the findings depicted in percentages and ratios, and conclusions were drawn accordingly.

#### **4.9 Data Quality Control**

Data quality control ensured that the correct and valid data was extracted from the respondents in order to avoid any bias. Patton (1990) defines it as the totality of means that contribute to and guarantee appropriate data. Content validity, pre-test of the questionnaires and interview guides, triangulation of methods, objectivity, rigorousness and ethical issues were used in data quality control. In order to avoid any bias and to ensure that the data collected was accurate and genuine, the following precautions were taken:

##### **4.9.1 Pre-Testing of the Research Instruments**

A pilot study was conducted to pre-test the instruments in order to determine the reliability or validity of the instruments. The instruments were pre-tested on a small but representative sample of library users, library staff and library directors at the University of Dar es Salaam and Sokoine University of Agriculture. Findings from

the pre-test exercise became the basis for improving the instruments. Questions which did not yield useful answers were either discarded or improved upon.

#### **4.9.2 Triangulation**

Triangulation in research means using more than one method in collecting data. Triangulation is necessary in research because no single method would adequately address all aspects of a problem and because each method used would reveal different aspects of empirical reality. Therefore, different methods were used as elaborated below. The researcher used more than one method to collect data, including a self-administered questionnaire, structured interviews and observation. All these methods provided a mechanism of counterchecking the validity and reliability of the data collected.

Content analysis was applied by reading and extracting information from different sources of information, for example, books, research reports, library departmental annual reports, university calendars and prospectuses, journals and information on the internet and the worldwide web were used.

In addition to the above, certain steps were taken to ensure that the data collected was free of bias and inaccuracies. For example, the researcher did not bring up leading responses to the respondents but instead, clarified certain issues wherever it was deemed necessary. Finally, on reviewing the literature, only relevant information which is related to the study was selected and this was guided by the research questions.

### **4.9.3 Objectivity**

The study sample and area were carefully selected, using the multi-stage cluster sampling frame as discussed earlier. Respondents were selected with a random start in order to increase validity and reduce bias. The sample technique ensured that each respondent had an equal chance of being selected.

### **4.9.4 Rigorousness [Strictness, Soberness, Seriousness, etc.]**

The research design was well planned and conducted in a way that ensured that the data collected was accurate and unbiased. The assumptions and derivations in data collection followed a strict scientific stance and rigour. Only factually grounded data was handled.

### **4.9.5 Ethical Issues**

Ethical issues in this research concerned the following:

- (i) Confidentiality about the information gathered from respondents
- (ii) Using the data secured for academic purposes only
- (iii) Ensuring that respondents' personalities were not exploited
- (iv) Attribution, respect, and fair use of research results.

Some of the individuals were reluctant to reveal personal information about themselves, such as age, gender, marital status, and monthly incomes, for the reasons best known to themselves because the researcher assured them that she was going to treat the information given as confidential and for academic purposes only. A covering letter was attached to all questionnaires and interview schedules distributed which

explained the purpose of this study and that any information provided would be treated as confidential and would be used for academic purposes only. Participants were also informed that filling in the questionnaires was voluntary. Finally, all the sources used were acknowledged.

However, despite all this, some respondents refused to reveal personal information as explained above. Similarly, even though respondents were assured in the introductory letter that any information given would be treated as confidential, some questions were not answered. In spite of the constraints, the research results were not affected because the researcher spent more money in employing two research assistants who vigorously distributed more questionnaires and made constant follow-ups to collect them. Also, more money was spent by staying for more days than initially planned (one month instead of three weeks).

#### **4.10 Limitation of The Study**

There were several problems which were encountered in the process of conducting this research including a delay in obtaining research clearance from the Government of Kenya. This delayed the research for one year: Misplacement of records in the Ministry of Education, Science & Technology in Kenya created a further delay for the researcher. At the Universities of Dar es Salaam and Nairobi half of the questionnaires which were distributed were lost when students went on strike. Therefore, new ones had to be redistributed to respondents after the strike. This explains the high response rate from the University of Dar es Salaam compared with the University of Nairobi.

At SUA the Faculty of Science had just been established and therefore, students could not be interviewed because they lived off the main campus and because they were new and had very little knowledge about library use. At Moi University, undergraduate students were busy with exams and most of them left immediately after completing their exams. In some cases respondents did not honour their appointments and follow-ups were made and appointments rescheduled.

However, as explained earlier, the research results were not affected because the researcher spent more days in the areas where data was to be collected. Instead of staying for three weeks as she planned in the proposal, she stayed for four weeks (one month). Also, she employed research assistants who assisted her in making a constant follow-up of the questionnaires from the respondents. That means more money was spent. All of the above factors help to explain the reasons for the high return rate of the questionnaires (82% percent of the questionnaires were returned). However, the 82% was representative of the total sample.

It was also difficult to get statistics on book loss, not only for the previous years but even for the current year, in all the universities surveyed due to poor record keeping, and time constraints. At least the University of Dar es Salaam had statistics for various years. Few of the surveyed libraries have never undertaken stocktaking. UDSM Library's last stock taking was done in 1985. Most of the library staff considered stocktaking as an expensive exercise.

#### **4.11 Summary**

The major issues which were addressed in this chapter included the procedures and techniques used in conducting this study. The information covered included the study area, research design, data collection methods, instruments used and their validity and reliability, sample and sampling techniques, data analysis, data quality control, ethical issues and limitations of the study.

## **CHAPTER FIVE**

### **DATA PRESENTATION AND ANALYSIS**

#### **5.1 Introduction**

This chapter presents and analyses the data following the five research questions which guided the study. The main purpose of this study was to examine the efficiency and effectiveness of circulation control systems in preventing book loss and theft in the four selected public university libraries in Tanzania and Kenya.

Data for this study was collected through a self-administered questionnaire with both open-ended and closed questions which were administered to 494 respondents who participated in this study. These included undergraduate and postgraduate students, academic and administrative staff, and library staff. Face-to-face interviews were also conducted with Library Directors/University Librarians. Respondents provided various views on circulation control systems in their libraries, as well as the prospects, problems and constraints.



## 5.2 Composition of Respondents

**Table 1: Composition of Respondents**

|                          | Category | Undergrad. Students |      | Postgrad. Students |      | Academic Staff |      | Administrative Staff |     | TOTAL |     |
|--------------------------|----------|---------------------|------|--------------------|------|----------------|------|----------------------|-----|-------|-----|
|                          |          | F                   | %    | F                  | %    | F.             | %    | F                    | %   | F     | %   |
| TOTAL SAMPLE:<br>N = 494 | MTL      | 44                  | 41.5 | 21                 | 19.8 | 34             | 32.1 | 7                    | 6.6 | 106   | 100 |
|                          | JKML     | 59                  | 50.9 | 37                 | 31.9 | 18             | 15.5 | 2                    | 1.7 | 116   | 100 |
|                          | SUA      | 56                  | 49.9 | 35                 | 31.0 | 14             | 11.9 | 8                    | 7.2 | 113   | 100 |
|                          | DSM      | 87                  | 54.8 | 46                 | 28.9 | 25             | 15.7 | 1                    | 0.6 | 159   | 100 |
|                          | TOTAL    | 246                 | 49.8 | 139                | 28.1 | 91             | 18.4 | 18                   | 3.6 | 494   | 100 |

Source: Field Data 2000

According to Table 1, 159 (32.2 %) out of 494 respondents were from the University of Dar es Salaam, 113 (22.8 %) from Sokoine University of Agriculture, 116(23.5 %) from the University of Nairobi and 106 (21.5 %) from Moi University. Of these 49.8% were undergraduate students, 28.1% were postgraduate students, 18.4% were academic staff and only 3.6% were administrative staff. Most academic staff did not return the questionnaires, because they were too busy while some of the administrators refused to fill in the questionnaires on the grounds that they are not the main users of the library, and as such were not aware of changes that have taken place.

## 5.3 Demographic Information of Respondents

It was necessary to get respondents' background information in order to get the overall picture about library users in Tanzania and Kenya in terms of age, gender, marital status, and educational level, because this helps to determine the reading habits and interests of library users.

**Table 2: Distribution of respondents by age group**

| TOTAL SAMPLE<br>N=494 | Category        | Frequency | Percentage |
|-----------------------|-----------------|-----------|------------|
|                       | 21-30 age group | 300       | 60.7%      |
|                       | 31-39 age group | 87        | 17.6%      |
|                       | 40-59 age group | 100       | 20.2%      |
|                       | No response     | 7         | 1.4%       |
|                       | TOTAL           | 494       | 100%       |

Source: Field Data 2000

According to Table 2, a majority of respondents 300 (60.7 %) were within the 21–30 age group; 100 (20.2%) in the 40-59 age group; 87 (17.6%) in the 31-39 age group and 7 (1.4%) did not answer this question. This indicates that the younger generation between the ages of 21 to 30 (60.7%) are the main users of the library.

#### 5.4 Respondents by Gender

Gender differences influence the performance and library use.

**Table 3: Distribution of respondents by gender**

| TOTAL SAMPLE<br>N=494 | Category    | Frequency | Percentage |
|-----------------------|-------------|-----------|------------|
|                       | Male        | 356       | 72.1       |
|                       | Female      | 134       | 27.1       |
|                       | No response | 4         | 8          |
|                       | TOTAL       | 494       | 100        |

Source: Field Data 2000

Table 3 shows that 356 (72.1%) out of the 494 respondents interviewed were male and 134 (27.1%) were female. This is not unusual because there are more male than female employees in all the surveyed institutions. Historically, in Africa, males have had more access to education than women. Even today gender imbalance in

education still persists. Most female respondents were reluctant to fill out the questionnaires because they said they were too busy.

### 5.5 Respondents' Educational Level

There is a close relationship between library use and level of education. The higher the level of education the more one is likely to read widely and use the library. The main respondents had either a first or second degree. Some had a PhD. Undergraduate students were aiming at obtaining a first degree.

### 5.6 Research Question Number 1: What Types of Circulation Control Systems are Used in the Selected University Libraries?

**Table 4: Types of Circulation Control Systems Used in the Selected University Libraries**

| Category                              | Circulation Control System Used  | Manual | Computerised |
|---------------------------------------|--|--------|--------------|
| Margaret Thatcher Library             | TINLIB Microcomputer Circulation Control System                                    |        | Computerised |
| Jomo Kenyatta Memorial Library        | Modified Browne Circulation Control System   | Manual |              |
| Sokoine National Agricultural Library | Simple Browne Circulation Control System   | Manual |              |
| University of DSM Library             | Simple Browne Circulation Control System up to mid 2001                            | Manual |              |
| University of DSM Library             | Computerised Circulation Control System Using ADLIB Software From Mid 2001 to Date |        | Computerised |

**Source: Field Data 2000**

Findings revealed that the UDSM Library, SNAL and JKML used the Browne manual circulation control system, however, JKML's manual system was slightly modified. The MTL used the TINLIB microcomputer circulation control system.

The Browne circulation control system is used in libraries to charge and discharge books efficiently, keep track of items in circulation and enable users to access library resources. A major disadvantage is that the system requires intensive labour, is time consuming, cumbersome and prone to human error. For example, all the particulars have to be hand written in a notebook and it is difficult to know how many books are in circulation; and once a book is loaned to a reader it is not easily available to others. Prior to computerisation, the University of Dar es Salaam Library's annual load, was less than 30,000 issues after which its circulation system began to falter. This meant that it was no longer functioning effectively as expected.

Since then most of these libraries have introduced computerised circulation control systems. Major advantages of computerised circulation control systems stem from the fact that they are faster, efficient, and cost effective and they produce expected results thus contributing to quality library services. Basically, an efficient and effective circulation control system facilitates timely access to information. This is in line with Ranganathan's first law (Books are for use) and third law (Every book its reader) which stress that Books are for use and should be made available when needed. Findings show that after computerisation, the UDSM Library and MTL experienced less book loss than JKML and SNAL which were not computerised.

Ranganathan's third law: (Every book its reader) stresses that library resources should meet a wide variety of information needs. This law is violated if the library stock fails to meet these needs. In order to fulfil Ranganathan's Laws the library

must have an efficient and effective circulation control system and adequate budgets to buy library resources that meet users' needs.

### 5.7 Ratio of Library Resources to Total User Population

Library staff were asked to comment on the ratio of library resources *vis-à-vis* the total user population. Responses are shown in Table 5 below:

**Table 5: Ratio of Library Resources to Total User population**

| Category | Registered Users | Volumes | Ratio of Books to Total User Population |
|----------|------------------|---------|---|
| MTL      | 4,775            | 250,000 | 1: 30                                   |
| JKM      | 8,104            | 500,000 | 1:7                                     |
| SNAL     | 2,151            | 100,000 | 1:30                                    |
| UDSM LIB | 4,161            | 500,000 | 1:15                                    |

**Source: Field Data 2000**

The statistics shown in Table 5 do not reflect the reality even though the ratios appear to be good. In-depth interviews, coupled with on-the-spot investigations, revealed that at the UDSM Library, for example, the ratio of library resources 1: 15 compares favourably with the number of registered users (4,161 users to 500,000 volumes). The final ratio is 1: 120. However, over the years the ratio of books to the total number of students has declined due to under-funding, theft, mutilation, misplacement, or overdues, etc. The same was true of JKML at the University of Nairobi, Kenya (8,104 users vis-a-vis 500,000 volumes). However, the ratio of library resources to the total user population at Moi University and Sokoine University of Agriculture was smaller than that of the University of Nairobi and the UDSM.

## 5.8 Library Budgets

The budget is an important aspect of library development and in ensuring balanced collections. The size of the library annual budget is therefore an important indicator in determining the importance accorded to the library by the parent institution.

Acquisitions Librarians were asked if their library annual budget was adequate.

**Table 6: Library Annual Budget**

| Category | Total Annual Budget for Books |
|----------|-------------------------------|
| MTL      | K.Shs. 4,000,000              |
| JKML     | K. Shs. 3,668,000             |
| SNAL     | T. Shs. 3,668,542             |
| UDSM LIB | Tshs. 4,000,000               |

**Source: Field Data 2000**

Key for Table 5: Exchange Rate: 1.00 Kshs.= 10.00 Tshs. (April 2000)

1.00 US \$ = Tshs. 600.00 and Kshs. 73.00 (April 2000).

Table 6 shows that Margaret Thatcher Library had the largest budget [K.shs. 4,000,000 (equivalent to US \$ 54,794.52)] followed by JKML and UDSM Library. JKML had a budget of Kshs. 3,668.000 (equivalent US \$ 50,246.57), UDSM Library Tshs. 4,000,000 (equivalent US\$ 6,666.67) and SNAL Tshs. 3,668.542 (equivalent US \$ 6,666.67)]. Even though budgets for libraries in Kenya were higher than those in Tanzania, these budgets are too small considering the number of users in each library and also given the high cost of books. There is a need to inject more resources into collection development in order to build balanced collections as recommended by Ranganathan's second law: "Every book its reader", meaning that the library must meet information needs of every user. (Ranganathan cited in Michelle and John, 2005).

Meagre budgets result into book scarcity and a scramble for limited resources and subsequently book theft and mutilation. Ranganathan's fifth law (The library is a living organism) advocates for adequate library budgets because "libraries consume information and cutting a library off from its resources at any arbitrary point will surely make it ILL, and perhaps may even KILL it" (Ranganathan cited in Michele and John, 2005).

International organisations also play a major role in supporting university libraries build balanced collections by providing grants, books, equipment, computers and journal subscriptions. For example, major funding agencies which have supported these libraries include BAI, ABC, NUFFIC, World Bank, University Enterprises Services (UNES), NORAD, ULIR, and FAO, Sida / SAREC, ABA and IBB. All the surveyed libraries also receive donations and legal deposit materials. This ties in with Ranganathan's fifth law that supports this idea of building library collections through various funding sources.

### 5.9 Respondents' Sources of Information

Respondents were asked to state their key sources of information and Table 7 shows the results.

**Table 7: Respondents' Sources of Information**

| TOTAL SAMPLE:<br>N=494 | Source                  | Frequency | Percentage |
|------------------------|-------------------------|-----------|------------|
|                        | Main University Library | 187       | 37.5       |
|                        | Borrowing From Friends  | 123       | 25         |
|                        | Loans                   | 61        | 12.5       |
|                        | No Responses            | 123       | 25         |
|                        | TOTAL                   | 494       | 100        |

**Source: Field Data 2000**

Table 7 shows that a majority of 187 (37.5%) use the library, 123 (25%) borrow from friends, 61 (12.5%) buy their own books, 123 (25%) did not answer this question. Other sources mentioned were the university bookshop, local bookshops, publishing houses and university departmental libraries.

When respondents were asked about the state of the bookshops in their countries, all of them said that bookshops do not meet their needs. For example, books on Engineering and Science-related fields were not available in local bookshops simply because they are too expensive. This is because local publishing houses and bookshops target primary and secondary schools rather than higher learning institutions. This was confirmed further through observations during visits to publishing houses and bookshops in Dar es Salaam, Nairobi, Morogoro and Eldoret. The Moi University Bookshop was almost empty due to a student strike which had



occurred a few months back before the researcher started collecting data. The Bookshop Manager complained that students were very destructive, and stole almost everything from the bookshop during the strike. The bookshop was in the process of revamping their shelves with new books.

**Table 8: Respondents' Comments on the State of the Publishing Industry in Tanzania and Kenya**

| TOTAL<br>SAMPLE<br>= 494 |            | Moi<br>University |      | Nairobi<br>University |      | Sokoine<br>University |      | Dar es Salaam<br>University |      |
|--------------------------|------------|-------------------|------|-----------------------|------|-----------------------|------|-----------------------------|------|
|                          | CATEGORY   | F.                | %    | F                     | %    | F.                    | %    | F.                          | %    |
|                          | Very Good  | 2                 | 1.9  | 1                     | .9   | -                     | -    | -                           | -    |
|                          | Good       | 58                | 54.7 | 53                    | 45.7 | 18                    | 15.8 | 61                          | 38.4 |
|                          | Very Bad   | 9                 | 8.5  | 7                     | 6.0  | 9                     | 8.0  | 22                          | 13.8 |
|                          | Bad        | 21                | 19.8 | 26                    | 22.4 | 48                    | 42.5 | 46                          | 28.9 |
|                          | Don't Know |                   | -    | -                     | -    | 9                     | 8.0  | 9                           | 5.7  |
|                          | No Answer  | 16                | 15.1 | 29                    | 25.0 | 29                    | 25.7 | 21                          | 13.2 |
|                          | TOTAL      | 106               | 100  | 116                   | 100  | 113                   | 100  | 159                         | 100  |

Source: Field Data 2000

F= Frequency    % = Percentage

Table 8 shows that a majority of respondents 58 (54.7%) from Moi, 53 (45.7%) from Nairobi and 61 (38.4%) from Dar es Salaam said that the publishing industry was good since it caters for primary and secondary education even though it does not cater for higher education. All respondents were of the opinion that the publishing industry needs to facilitate publication of academic books.

#### 5.10 Respondents' Sources of Funding for Books

Respondents were asked to indicate their sources of funding for purchasing books. A majority of respondents [144 (29.1%)], cited the government as their key source of

funding. Others [350 (70.9%)] mentioned universities, international organisations, parents, employers and personal funding as their key sources of information. However, the findings also revealed that, in Tanzania, very few respondents depend on financial support from parents or personal income to buy books, unlike in Kenya, where parents provide students with money to buy books. Although respondents did not reveal their parents' salaries it can be concluded that parents are aware of the importance of educating their children to university level and are therefore willing to make sacrifices for their children's education.

#### 5.11 Students' Book Allowances

It was important to find out whether students' book allowances are adequate. Table 9 below shows the book allowances for both undergraduate and postgraduate students in each institution per academic year.

**Table 9: Undergraduate & Postgraduate Students' Book  
Annual Allowances**

| Category                          | Book Allowance |                 |
|-----------------------------------|----------------|-----------------|
|                                   | Undergraduates | Postgraduates   |
| Moi University                    | K.shs.9, 000   | K.shs. 40,000   |
| University of Nairobi             | K.shs. 9,000   | K. shs. 40,000  |
| Sokoine University of Agriculture | T. shs. 60,000 | T. shs. 230,000 |
| University of Dar es Salaam       | T. shs. 80,000 | T. shs. 250,000 |

Source: Field Data: 2000

Exchange Rate (April 2000): K.sh. 1.00 = T.shs.10.00.

Students from all the four institutions claimed that their book allowances were inadequate. Book allowances for students in Tanzania were much lower than those of their counterparts in Kenya. In Tanzania, undergraduates' book allowance was only US \$ 80.00 and for postgraduates US \$ 250.00 per annum. As a result, most students cannot buy the required textbooks especially books on Medicine, Science, Engineering, Mathematics, Economics and Architectural Studies which are expensive. A book in these fields can cost more than US \$ 50.00 and a student is required to buy at least four (4) core textbooks every academic year.

Given this situation, a lot of pressure is put on the library to meet users' information needs. Overuse of these meagre resources also results in wear and tear, high non- return rates, overdue, illegal borrowing and high mutilation rates. This is also why libraries should be well funded in order to meet the wide variety of students' information needs. Therefore, libraries must be resourceful and proactive in soliciting donor funding.

#### **5.12: Library Use: Frequency**

Respondents were asked to state how often they visit the Library. The aim was to find out whether the library is heavily used or not. The responses are shown in Table 10.

**Table 10: Frequency of visits to the Library**

| Category | Everyday |      | Once a Week |      | Twice a Week |     | Thrice a Week |      | Never |     | Other |      | No Response |     | TOTAL |     |
|----------|----------|------|-------------|------|--------------|-----|---------------|------|-------|-----|-------|------|-------------|-----|-------|-----|
|          | F        | %    | F           | %    | F            | %   | F             | %    | F     | %   | F     | %    | F           | %   | F     | %   |
| MTL      | 38       | 35.8 | 13          | 12.3 | 8            | 7.5 |               | 21.7 | 1     | .9  | 23    | 21.7 | 1           | —   | 106   | 100 |
| JKNL     | 41       | 35.3 | 6           | 5.2  | 9            | 7.8 | 33            | 28.4 | —     | —   | 26    | 22.4 | 1           | .9  | 116   | 100 |
| SNAL     | 23       | 20.4 | 12          | 10.6 | 10           | 8.8 | 21            | 18.6 | —     | —   | 44    | 38.9 | 3           | 2.7 | 113   | 100 |
| UDSN     | 61       | 38.4 | 12          | 7.5  | 10           | 6.3 | 26            | 16.4 | 4     | 2.5 | 43    | 27.0 | 3           | 1.9 | 159   | 100 |
| TOTAL    | 163      | 33.0 | 43          | 8.7  | 37           | 7.5 | 103           | 20.9 | 5     | 1.0 | 136   | 27.5 | 7           | 1.4 | 494   | 100 |

**Source: Field Data 2000**

According to Table 10, a majority of the respondents [163 (33.0%)] visit the library every day, 136 (27.5%) said as often as possible, 103 (20.9%) said three times a week while 43 (8.7%) said once a week. Based on the findings it is clear that the library is heavily used and this may have some implications in terms of security because the busier the library, the less time library staff working at the circulation desk have to make a follow-up on damaged books, stolen books or illegal borrowing.

### 5.13 Research Question 2: What Factors Contribute to Book Losses in the Selected University Libraries?

Respondents were asked to comment on whether book losses in their libraries were decreasing or increasing and on the causal factors. Responses are shown in Table 11.

**Table 11: Respondents' Comments on Book Losses**

| TOTAL<br>SAMPLE<br>N = 494 | Category | Increasing |      | Decreasing |      | Don't Know |      | TOTAL |     |
|----------------------------|----------|------------|------|------------|------|------------|------|-------|-----|
|                            |          | Freq.      | %    | Freq.      | %    | Freq.      | %    | Freq. | %   |
|                            | MTL      | 21         | 19.8 | 25         | 23.6 | 60         | 56.6 | 106   | 100 |
|                            | JKML     | 43         | 37.1 | 11         | 9.5  | 62         | 53.5 | 116   | 100 |
|                            | SNAL     | 12         | 0.6  | 17         | 15.0 | 84         | 74.4 | 113   | 100 |
|                            | UDSM     | 33         | 20.8 | 16         | 10.1 | 110        | 69.2 | 159   | 100 |
|                            | TOTAL    | 109        | 22.1 | 69         | 14.0 | 316        | 64.0 | 494   | 100 |

**Source: Field Data 2003**

The findings revealed that a majority of respondents [316 (64.0%)] did not know the rate of book losses in their library, 109 (22.1%) said book losses were on the increase while 69 (14.0%) said book losses were decreasing. Book losses at JKML had increased by 37.1%, UDSM Library by 20.8%, MTL by 21 (19.8%) and SNAL by 0.6%. Therefore, it can be concluded that libraries with electronic security systems also experience book losses, as shown above.

Library staff were also asked whether book losses in their library were on the increase or not. Reasons differed from library to library depending on a number of factors. MTL experienced book losses in the 1970s and 1980s but the problem decreased in the 1990s due to computerisation of library functions. JKML experienced more book losses in the

1990s than in the previous years because more students were admitted to the University of Nairobi in the 1990s than in previous years. Therefore, the higher the number of library users the busier the library staff became at the circulation desk, and the less time they had to make a follow-up on illegal borrowing, overdue and lost books, except during vacations. Another factor mentioned is the cumbersome Browne circulation control system. Unlike computerised library systems, the manual system is flexible, and allows library staff to collude with library users to take books out of the library illegally. Short loan period and inadequate photocopying facilities also contribute to book losses and overdue.

At the University of Dar es Salaam Library, it was revealed that book loss was higher in the 1990s than in the 1970s and 1980s. This was attributed to the high student intake, understaffing and the cumbersome Browne manual circulation control system. However, when in mid-2001 the UDSM Library computerised its circulation functions, it experienced a reduction in book losses because the computer is not flexible and does not allow library users to borrow materials without a valid ID card, or if one has books which are overdue, unless he/she pays the fine and returns the books. At the SNAL book losses were higher in the 1990s than in the 1970s and 1980s, despite having installed an electronic security system, which deterred user from taking books out illegally. Book losses were attributed to inadequate copies per title, untrained circulation desk staff, the cumbersome Browne manual circulation control system and collusion between circulation desk staff and library users. Book losses were also attributed to inadequate resources, which created demand and

encouraged students to collude with staff at the checkpoint. All these problems can be resolved by fulfilling all of Ranganathan's five laws.

Respondents attributed the increase in book losses to several factors, including the cumbersome manual system of charging and discharging books, restricting borrowing privileges until the overdue fine was paid, users' weak economic base, collusion between staff and students and inefficient library staff. Reader services librarians and library assistants at each university library were asked to comment on the effectiveness of their circulation control systems in minimising book losses and in giving satisfaction to users and staff. The comments are indicated in Table 12 below:

**Table: 12: Reader Services Library Staff Responses on the Effectiveness of Circulation Control Systems**

| TOTAL<br>SAMPLE:<br>N= 20 | Category | Effectiveness of<br>Circulation Control<br>System | Frequency | %    |
|---------------------------|----------|---|-----------|------|
|                           | MTL      | Moderately Effective                              | 5         | 100% |
|                           | JKML     | Moderately Effective                              | 5         | 100% |
|                           | SNAL     | Effective   | 5         | 100% |
|                           | UDSM LIB | Not Very Effective                                | 5         | 100% |
|                           |          | TOTAL   | 20        | 100% |

**Source: Field Data2000**

Generally, and as shown in Table 12, four reader services librarians (one in each library) and sixteen library assistants working at the circulation desks (four in each library) were of the opinion that the circulation control system in their library were effective, but the degree of effectiveness differed from library to library. For example, at JKML, the Reader Services Librarian said:

*Occasionally we lose books due to the faulty circulation control system but the human factor is a major contributing factor in the sense that sometimes dishonest staff collude with dishonest students to take the books out of the library illegally or due to financial constraints. Some library staff are tempted to steal books to sell to library users for a living, and sometimes the electronic security system does not function properly and fails to detect stolen books. laxity of library staff is also a factor.*

Similarly, the Reader Services Librarian at the UDSM Library commented:

“Library users sometimes manipulate the system and take books out of the library illegally.” At SUA the Reader Services Librarian said:

*It is difficult to maintain proper records for overdue books manually; hence users with overdue books take advantage of this weakness and borrow more books without being detected. We are not happy with our manual system.*

Respondents were asked to state whether it is easy for them to locate materials in the library. The responses are shown in Table 13.

**Table 13: How Respondents Find Books in the Library:**

| TOTAL SAMPLE:<br>N=494 |          | Easy to Locate |      | Not easy to Locate |      | No Response |     | TOTAL |      |
|------------------------|----------|----------------|------|--------------------|------|-------------|-----|-------|------|
|                        | CATEGORY | F              | %    | F                  | %    | F           | %   | F     | %    |
|                        | MTL      | 70             | 66.0 | 36                 | 33.9 | -           | -   | 106   | 100  |
|                        | JKML     | 56             | 48.3 | 57                 | 49.1 | 3           | 2.6 | 116   | 100  |
|                        | SNAL     | 47             | 41.6 | 63                 | 55.7 | 3           | 2.7 | 113   | 100  |
|                        | UDSM     | 78             | 49.1 | 71                 | 44.7 | 10          | 6.3 | 159   | 100  |
|                        | TOTAL    | 251            | 50.8 | 227                | 45.9 | 16          | 3.2 | 494   | 100. |

Source: Field Data 2000

Key: F=Frequency %= Percent

As indicated in Table 13 a majority of respondents [251 (50.8%)] said it is easy to locate materials in the library, 227 (45.9%) said it is difficult and 16 (3.2%) did not



respond. It was also observed that MTL, JKML and UDSM had computerised their catalogues, a factor which also speeds up access, SNAL was still using the manual catalogue, and together with a poor filing system, infrequent returning of books to the shelves, and uncatalogued backlogs made it difficult for users to locate materials. Therefore, strategically, library staff at SUA should make an effort to computerise the catalogue in order to facilitate easy access to information. This is also in line with Ranganathan's third law: (Every book its reader) which advocates for increased access to more resources and more ways of searching, updating of the catalogues and training of library staff and users on how to search catalogues and databases in order to get proper and relevant information.

#### **5.14 Research Question 3: How do Manual Circulation Control Systems**

##### **Compare with Computerised Ones in terms of Efficiency and Effectiveness in Controlling Book Losses?**

Findings revealed that all the selected libraries used manual circulation control systems except Margaret Thatcher Library (MTL). MTL uses TINLIB microcomputer circulation system which was fully computerised and JKML used a modified Browne circulation control system which was manual. The UDSM Library used a Browne manual circulation control system until mid 2001, after which they introduced a computerised circulation control system using the ADLIB (Adapted Library System) software. The SNAL used a simple manual Browne circulation control system. Table 4 is self explanatory.

Both library users and library staff in the Reader Services Department were asked to comment on the effectiveness of the circulation control system used in minimising book losses. In response to this question the Reader Services Librarians at MTL, which used an electronic circulation control system, and JKML, which used a manual circulation control system said: "moderately effective." The Reader Services Librarian at SNAL which used a manual system of circulation control said: "effective". The respondents at the UDSM Library, when it was using a manual circulation control system said it was not very effective. Library staff from Margaret Thatcher Library pointed out that "some library staff and students collude to steal library books. Financial constraints also force library staff to steal books and sell them to supplement their meagre incomes." Others attributed book losses to defective electronic security system, and inefficiency of library staff in terms of stamping and cancelling due dates as well as failure to screen delinquent borrowers.

A library staff member at Sokoine National Agricultural Library (SNAL) stated: "The manual circulation control system at the SNAL was not very effective in terms of monitoring overdue books, and so as a result delinquent users often borrow other books." Similarly, one library staff member from the UDSM Library commented: "Library users can manipulate the system or collude with library staff and take books outside the library without following laid-down procedures." This is why Ranganathan's first law advocates that "Books are for use" and that emphasis should be on making the resources available where and when they are needed. Librarians must make sure that the resources are not stolen, illegally borrowed or on extended loan.

However, since the computerisation of the UDSM Library the situation has changed because the computer is not flexible and does not favour problematic users. The system is reported to be more efficient and effective than the Browne manual circulation control system. This does not mean that the library does not lose books but the situation has improved.

### **5.15 Book Losses Versus Type of Circulation Control System**

Library staffs were asked whether there was any relationship between the type of circulation control systems used and book losses in their library. In response to this question, a majority of library staff at SNAL, UDSM and JKML Libraries did not think so whereas those at MTL were of the opinion that there is, in the sense that the computerised circulation control system tends to reduce book losses unlike manual circulation control systems.

Respondents were also asked to give reasons that contribute greatly to book loss in libraries. A majority of respondents (more than 50%) mentioned the following: “poor quality services by circulation desk staff and book poverty as well as ineffective circulation control systems. Also, most academic and administrative staff do not return books unless they want clearance from the library or unless they need to borrow more books.” At SNAL, library staff said: “Checkpoint and circulation desk staff collaborate with library users to steal books.” At the UDSM, respondents said: “Dishonest library staff collude with students, to steal books from the library, sometimes using illegal borrowing”.

Respondents were asked to state whether they borrow books from the library. Table 14 shows the results:

**Table 14: Respondents Who Borrow Books From The University Library**

| TOTAL SAMPLE<br>N=494 | Category | Yes |      | No  |      | No response |      | TOTAL |     |
|-----------------------|----------|-----|------|-----|------|-------------|------|-------|-----|
|                       |          | FR. | %    | FR. | %    | FR.         | %    | FR.   | %   |
|                       |          |     |      |     |      |             |      |       |     |
|                       | MTL      | 105 | 99.1 | 1   | .9   | (-)         | (-)  | 106   | 100 |
|                       | J K ML   | 108 | 93.1 | 3   | 2.6  | 5           | 4.3  | 116   | 100 |
|                       | SNAL     | 99  | 87.6 | 9   | 8.0  | 5           | 4.4  | 113   | 100 |
|                       | UDSM     | 125 | 78.6 | 31  | 19.5 | 3           | 23.1 | 159   | 100 |
|                       | TOTAL    | 437 | 88.5 | 44  | 8.9  | 13          | 2.6  | 494   | 100 |

Source: Field Data 2000

Table 14 shows that a majority of library users [437 (88.5%)] borrow books from the library compared with 44 (8.9%) who said they do not. This is not surprising because, as shown earlier, most respondents cannot afford to buy books due to financial constraints. Therefore, the library is a key source of information for most respondents in all four of the selected libraries and this is why university libraries should be adequately funded.

Respondents who borrowed books from the library were asked how long it takes to charge out a book at the circulation desk. Responses are shown in Table 15.

**Table 15: Time Spent by Respondents to Charge Out Books**

| Total               |     |     | No Response |    |      | More Than 5 Minutes |     |      | 3-4 Minutes |     |      | 30 Seconds to 1 Minute |     |      | 2-3 Minutes | Category |
|---------------------|-----|-----|-------------|----|------|---------------------|-----|------|-------------|-----|------|------------------------|-----|------|-------------|----------|
|                     | F   | %   |             | F  | %    |                     | F   | %    |             | F   | %    |                        | F   | %    |             |          |
|                     | 106 | 100 |             | 1  | .9   |                     | 32  | 30.2 |             | 17  | 16.0 |                        | 29  | 27.4 |             | NTL      |
|                     | 116 | 100 |             | 7  | 6.0  |                     | 50  | 43.1 |             | 32  | 27.6 |                        | 24  | 20.7 |             | JKML     |
|                     | 113 | 100 |             | 17 | 15.0 |                     | 42  | 37.1 |             | 18  | 15.9 |                        | 25  | 22.1 |             | SNAL     |
|                     | 159 | 100 |             | 34 | 21.4 |                     | 57  | 35.8 |             | 36  | 22.6 |                        | 26  | 16.4 |             | UDSM     |
|                     | 494 | 100 |             | 59 | 11.9 |                     | 181 | 36.6 |             | 103 | 20.9 |                        | 104 | 21.1 |             | TOTAL    |
| TOTAL SAMPLE: N=494 |     |     |             |    |      |                     |     |      |             |     |      |                        |     |      |             |          |

Source: Field Data 2000

F= Frequency

% = Percentage

Table 15 shows that a majority of the respondents 181 (36.6%) spend more than five minutes to charge out a book, 104 (21.1%) between 2-3 minutes, 103 (20.9%) spend 3 to 4 minutes and only 47 (9.5%) between 30 seconds to a minute. Those who spent less time at the circulation desk charging out books had a computerised circulation control system, and those who spent more than five (5) minutes had a manual circulation control systems. That means computerised circulation control systems tend to improve the efficiency and effectiveness of library functions.

Respondents were also asked about the time they spent in charging in a book and their responses are shown in table 16.

**Table 16: Time Spent by Respondents to Return a Book at the Circulation Desk**

| TOTAL SAMPLE:<br>N = 494 | Category | 1-2<br>Minutes |         | 2-3<br>Minutes |         | 4—5<br>Minutes |         | 10-15<br>Minutes |         | Other<br>(Specify) |         | No<br>(Response) |         | TOTAL     |         |
|--------------------------|----------|----------------|---------|----------------|---------|----------------|---------|------------------|---------|--------------------|---------|------------------|---------|-----------|---------|
|                          |          | Frequency      | Percent | Frequency      | Percent | Frequency      | Percent | Frequency        | Percent | Frequency          | Percent | Frequency        | Percent | Frequency | Percent |
|                          | MT L     | 54             | 50.9    | 18             | 17.0    | 14             | 13.2    | 5                | 4.7     | 14                 | 13.2    | 1                | .9      | 106       | 100     |
|                          | JKML     | 28             | 24.1    | 31             | 26.7    | 29             | 25.0    | 8                | 6.9     | 13                 | 11.2    | 7                | 6.0     | 116       | 100     |
|                          | S NAL    | 15             | 13.3    | 28             | 24.8    | 22             | 19.5    | 12               | 10.6    | 20                 | 17.7    | 16               | 14.2    | 113       | 100     |
|                          | UDSM     | 9              | 5.7     | 41             | 25.8    | 34             | 21.4    | 16               | 10.1    | 23                 | 14.5    | 36               | 22.6    | 159       | 100     |
|                          | TOTAL    | 106            | 21.5    | 118            | 23.9    | 99             | 20.0    | 41               | 8.3     | 70                 | 14.2    | 60               | 12.1    | 494       | 100     |

Source: Field Data 2000

Table 16 shows that a majority of respondents [118 (23.9%)] spend 2-3 minutes to return a book at the circulation desk, 106 (21.5%) spend 1-2 minutes, 99 (20.0%) spend 4 to 5 minutes, 70 (14.2%) spend 1 to 6 minutes, 41 (8.3%) spend 10 to 15 minutes. 60 (12.1%) did not respond. Thus the time spent on returning books at the circulation desk was determined by the type of circulation control system in place. This illustrates Ranganathan's fourth law: (Save the time of the reader) which emphasises that the library should examine every aspect of its policies, rules, procedures and systems in order to save the time of the reader. As pointed out earlier, a good circulation control system will enable users to retrieve information from the collections and charge it out faster. Ranganathan recommends that a library should be well planned with library handbooks, stack guides and library tours, or research instruction sessions in order to save the time of the reader. Computerising circulation control systems, updating

Online Public Access Catalogues (OPACs) and training library staff and users are also important factors.

Ranganathan's third law (Every book its reader) is also relevant in this regard since it emphasises that the job of the librarian is to ensure that these resources are accessible to those who need them (getting authoritative information sources to potential users is the job of librarians and libraries). The same law is also a reminder that, by computerising library services, including circulation control systems, the library staff are able to update the OPACs in order to assist users to get relevant information by searching through the catalogues.

Through the fourth law (Save the Time of the Reader), Ranganathan emphasises the formulation of library policies with the needs of the library user in mind. In this regard, examples which have been cited by Ranganathan include "hours of operation must be set in order to ensure appropriate and convenient access, and the collection must be arranged in an inviting, clear, and obvious manner so as not to waste the time of users. Saving the time of the user means providing efficient and thorough access to materials" (Ranganathan cited in Michelle and John, 2005). In order to be successful, Ranganathan strongly believed that "well-planned and executed library handbooks, stack guides, and library tours, or research instruction sessions also serve the goal of saving the time of the reader" (Ibid, 2005). Through the same fourth law Ranganathan also recommended that "the library must provide adequate staffing of reference. Ultimately employing the best available technologies to provide quick

access to materials saves the time of the reader” (Ibid, 2005). In this regard, computerisation of circulation control systems in libraries must be given priority.

#### **5.16 Research Question 4: What are the Users’ Views on Circulation Control Systems in the Selected University Libraries?**

Respondents perceived the circulation control system to be effective and efficient if they were being well served by library staff and also if they were getting the right type of information they required from the library faster. The researcher therefore asked respondents several questions on the quality of services rendered by circulation desk staff and their attitude to library users. The responses are indicated in Table 17.



**Table 17: Rating the Quality of Services at the Circulation Desk**

| Category            | TOTAL |         | No Response |         | Don't Know |         | Poor  |         | Very Poor |         | Good  |         | Very Good |         |
|---------------------|-------|---------|-------------|---------|------------|---------|-------|---------|-----------|---------|-------|---------|-----------|---------|
|                     | Freq. | Percent | Freq.       | Percent | Freq.      | Percent | Freq. | Percent | Freq.     | Percent | Freq. | Percent | Freq.     | Percent |
| TOTAL SAMPLE: N=494 | MTL   | 106     | 100         | (-)     | (-)        | 4.7     | 5     | 6.6     | 7         | 0.9     | 1     | 84.0    | 89        | 3.8     |
|                     | JKML  | 116     | 100         | 2       | 1.7        | 9.5     | 11    | 13.8    | 16        | (-)     | (-)   | 70.7    | 80        | 4.3     |
|                     | SNAL  | 113     | 100         | 2       | 1.8        | 24.8    | 28    | 12.4    |           | 2       | 1.8   | 56.6    | 64        | 2.7     |
|                     | UDSM  | 159     | 100         | 13      | 8.2        | 23.3    | 37    | 15.1    | 24        | 0.6     | 1     | 52.2    | 83        | 0.6     |
|                     | TOTAL | 494     | 100         | 3.4     | 17         | 16.4    | 81    | 12.3    | 61        | 0.8     | 4     | 64.4    | 318       | 2.6     |

**Source: Field Data 2000**

In general, a majority of respondents at the selected university libraries rated the services rendered as good: MTL 89 (84.0%), JKML 80 (70.7%), SNAL 64 (56.6%), and UDSM Library 83 (52.2%). Only a small percentage said very good, very poor or did not know. The statistics in Table 17 are self-explanatory. However, it is also true that those with computerised circulation control systems and security guards at exit doors are more likely to offer better and faster services than those using manual circulation control systems.

**Table 18: Perceptions of Circulation Desk Staff by Respondents**

| Category  | Very Good |     | Good |      | Not Predictable |      | Bad |     | Very Bad |     | Don't Know |     | TOTAL |     |
|-----------|-----------|-----|------|------|-----------------|------|-----|-----|----------|-----|------------|-----|-------|-----|
|           | F         | %   | F    | %    | F               | %    | F   | %   | F        | %   | F          | %   | F     | %   |
| MTL       | 4         | 3.8 | 47   | 44.3 | 50              | 47.2 | 2   | 1.9 | 3        | 2.8 | (-)        | (-) | 106   | 100 |
| JKML      | 7         | 6.0 | 53   | 45.7 | 51              | 44.0 | 3   | 2.6 | 1        | 0.9 | 1          | 0.9 | 116   | 100 |
| SNAL      | 4         | 3.5 | 65   | 57.5 | 34              | 30.1 | 4   | 3.5 | 1        |     | 5          | 4.4 | 113   | 100 |
| UDSM LIB. | 10        | 6.3 | 96   | 60.4 | 34              | 21.4 | 2   | 1.3 | 6        | 3.8 | 11         | 6.9 | 159   | 100 |
| TOTAL     | 25        | 5.1 | 261  | 52.8 | 169             | 34.2 | 11  | 2.2 | 11       | 2.2 | 17         | 3.4 | 494   | 100 |

Source: Field Data 2000

Generally speaking, as shown in Table 18, a majority of respondents rated the attitude of circulation desk staff as good, as shown by the statistics in the Table: Margaret Thatcher Library 47 (44.3%), Jomo Kenyatta 53 (45.7%), Sokoine 65 (57.5%), and UDSM 96 (60.4%). Only a small percentage from all the selected libraries commented bad, very bad and don't know as indicated in the Table. Based on these responses, most respondents were satisfied with the attitudes of circulation desk staff. It is also true that librarians, like any other professionals, could be

unpredictable due to a number of factors such as stress, too much work or frustration caused by delinquent borrowers. Nonetheless this should not be taken as the norm. There is a need to train library staff in public relations including professional, legal and ethical issues. Again this is in line with Ranganathan's third law: (Every book its reader) which states: "It should be the business of the Librarian to adopt all the recognised methods of attracting the public to the library so that every potential reader may be converted into an actual one, thereby increasing the chances for fulfilment of the third law" (Ranganathan, cited in Michelle and John (2005)). Essentially, it is the duty of library staff to attract the public to the library instead of scaring them away.

Respondents were also asked to comment on the effectiveness of their circulation control systems. Their responses are shown in Table 19.

**Table 19: Respondents' View on Effectiveness of Circulation Control Systems**

| TOTAL SAMPLE<br>N=494 | Category  | Very Effective |      | Moderately Effective |      | Effective |      | Not Effective |     | Don't Know |     | TOTAL |     |
|-----------------------|-----------|----------------|------|----------------------|------|-----------|------|---------------|-----|------------|-----|-------|-----|
|                       |           | Fr.            | %    | Fr.                  | %    | Fr.       | %    | Fr.           | %   | Fr.        | %   | Fr.   | %   |
|                       | MTL       | 28             | 26.4 | 41                   | 38.7 | 35        | 33.0 | 2             | 1.9 | (-)        | (-) | 106   | 100 |
|                       | JKML      | 6              | 5.2  | 52                   | 44.8 | 48        | 41.4 | 9             | 7.8 | 1          | 0.9 | 116   | 100 |
|                       | SNAL      | 14             | 12.4 | 38                   | 33.6 | 47        | 41.6 | 8             | 7.1 | 6          | 5.3 | 113   | 100 |
|                       | UDSM LIB. | 15             | 9.4  | 61                   | 38.4 | 49        | 30.8 | 10            | 6.3 | 24         |     | 159   | 100 |
|                       | TOTAL     | 63             | 12.8 | 92                   | 38.9 | 179       | 36.2 | 29            | 5.9 | 31         | 6.3 | 494   | 100 |

Source: Field Data 2000

The findings in Table 19 revealed that a majority of respondents [179 (36.2%)] considered their circulation control systems to be effective, 92 (38.9%) said moderately effective, and only 63 (12.8%) said very effective, while 29 (5.9%) said not effective and 31 (6.3%) did not know. Basically, computerised library circulation control systems require ICT personnel who can cope with the demands at the circulation desk. Circulation control systems were viewed in relation to their ability to enable users to access the right information at the right time (faster).

Respondents perceived the circulation control system to be effective and efficient if they were being well served by library staff and also if they were getting relevant or rather the right type of information they required from the library faster. Table 19 proves this fact. When respondents were asked about their perception of the effectiveness of circulation control system, the majority answered: “moderately effective” and “effective” and a small percentage in each institution answered “very effective”.

One would have thought that the Margaret Thatcher Library’s circulation control system would have been rated as ‘very effective’ since it is computerised, but this was not the case. Therefore, there must be other factors that contribute to the effectiveness of a circulation control system, including trained, skilled and efficient committed service providers. Such staff are more likely to prevent book theft and will not collude with library users to take books out of the library illegally.

#### **5.17 Research Question 5: What Strategies can be used to Improve the Provision of Circulation Services to Library Users in the Selected University Libraries?**

In order to provide better circulation services for library users in Tanzanian and Kenyan universities there is an urgent need to do stocktaking in libraries at least once every two years, to introduce an electronic security system to prevent theft of books in libraries, to solicit funds to enable university libraries to acquire adequate materials for all academic programmes run at the university, and finally, to train

library staff with the support of the parent institution to adhere to the library rules and regulations so that books are not taken out of the library illegally.

Library staff were asked how often they did stocktaking in their libraries. The aim was to find out the number of books lost from each library. Table 20 below indicates the librarians' responses.

**Table 20: Stocktaking Frequency**

|                           |                                       |                        |
|---------------------------|---------------------------------------|------------------------|
| TOTAL<br>SAMPLE:<br>N = 4 | Category                              | Frequency              |
|                           | Margaret Thatcher Library             | Almost 10 years ago    |
|                           | Jomo Kenyatta Memorial Library        | Not done at all        |
|                           | University of Dar es Salaam Library   | 15 years ago (in 1985) |
|                           | Sokoine National Agricultural Library | Occasionally           |

**Source: Field Data 2000**

Table 20 shows that stocktaking was not done on a regular basis in all the selected libraries, because library staff claimed that it is very expensive and time consuming. At JKML, they said stocktaking is not done at all because the library is open throughout the year (January to December) because of parallel programmes. At SNAL they claimed that they do stocktaking occasionally because no budget has been allocated for this exercise, but that stock taking is done for special collections and special reserve collections using the meagre resources available. At MTL they said stocktaking was done 10 years ago and UDSM 15 years ago. In view of this, it is possible that valuable resources are lost each year without the knowledge of library staff. In this regard stocktaking must be considered by library staff as an important and necessary aspect of good library management and not as a choice. It should be done by large libraries at least once every two years. Library staff must solicit

funding from various organisations at local and national levels to enable the stocktaking exercise to take place. Friends of the library can also be invited to donate funds for this purpose.

Library staff were asked about what methods they use to recover stolen books from borrowers. The UDSM Library did not have a special system in place, but expected staff manning the service desks to be honest and diligent in preventing book losses or illegal borrowing. Library Assistants at the main checkpoint were and still are assisted by uniformed security officers to ensure that books are borrowed legally following library rules and regulations. The installation of the electronic security system minimised the problem of book losses at the UDSM Library. MTL and JKML installed electronic security systems and employed security staff to man exit gates and to check every book taken out of the library to ensure it was legally borrowed. During the discussion, one of the security officers commented:

*Electronic security systems are more efficient in preventing book losses and illegal borrowing because illegally borrowed books can be easily detected by electronic security systems. If an item is illegally borrowed when scanned the alarm is triggered and security men follow up the library user who borrowed an item illegally. In most cases he is advised to go back to the circulation desk to borrow the item legally. Where the book is overdue, it is usually withheld at the main checkpoint and the library user is prevented from taking it out of the library.*

Security staff at MTL also check overdue dates to ensure that overdue books do not leave the library. At the entrance, they also take statistics of users entering the library. This helps to determine when the library is heavily used and to plan

accordingly. For example, if students demand longer library opening hours, these statistics can be used to argue the case. Today all the surveyed libraries: UDSM Library, SNAL, JKML and MTL, have electronic security systems to deter book theft.

When the University Librarian was asked to comment on the strengths and weaknesses of JKML general collection whose books circulate to users, he commented as follows:

*The collection is reasonable in terms of size and quality and most of the materials are on open access. The problems are that not all materials are up to-date especially reference materials. Also, not all academic areas are covered adequately. Some materials are mutilated due to scarcity and are easily worn out due to heavy usage; therefore, binding is done on a regular basis.*

Library staff were also asked to indicate whether they strongly agree, agree, disagree, or strongly disagree with the statements concerning overdue fines. Staff interviewed ranged from library assistant cadre to professional librarians. Table 21 elaborates their responses in the four respective libraries.



**Table 21: Library Staff Views on Overdue Fines**

| TOTAL<br>SAMPLE:<br>N = 40 | Category   | Strongly<br>agree | Agree | Disagree | Strongly<br>disagree | TOTAL |
|----------------------------|--|-------------------|-------|----------|----------------------|-------|
|                            | (a) Paying fines is an effective way of sanctioning a delinquent borrower                              | 18                | 16    | 2        | 4                    | 40    |
|                            | (b) Suspending borrowing privileges of delinquent borrowers gives the best results                     | 17                | 17    | 0        | 6                    | 40    |
|                            | (c) Overdue can be decreased by increasing the library budget to purchase books                        | 38                | 2     | 0        | 0                    |       |
|                            | (d) Overdue can be reduced by improving the circulation control system                                 | 24                | 6     | 0        | 10                   | 40    |
|                            | (e) Overdue can be reduced by extending the loan period to a semester                                  | 7                 | 5     | 10       | 18                   | 40    |
|                            | (f) Problems of overdue can be solved by making popular books available to the maximum number of users | 17                | 2     | 17       | 4                    | 40    |
|                            | (g) Libraries with automated circulation systems have less overdue                                     | 20                | 8     | 11       | 1                    | 40    |
|                            | (h) Loan policies between students and faculty reflect unfairness                                      | 1                 | 0     | 14       | 25                   | 40    |

**Source: Field Data 2000**

Table 21 shows views of 40 library staff (10 from each institution) on library overdue fines in libraries. These included paying fines, suspending borrowing privileges of delinquent borrowers, increasing the library budget, improving the circulation control system, extending the loan period to a semester, making popular books available to many users, automating library functions and being fair in regard to loan policies between students and faculty. The responses in Table 21 are self-explanatory. The majority of library staff (18) strongly agreed that paying fines is an

effective way of sanctioning a delinquent borrower. 17 library staff strongly agreed that suspending borrowing privileges of delinquent borrowers gives the best results, 17 just agreed with this statement. The majority strongly agreed that overdue can be decreased by increasing the library budget to purchase books, 24 strongly agreed that overdues can be reduced by improving the circulation control system and 10 disagreed with the same statement. The statement that overdues can be reduced by extending the loan period to a semester was strongly disagreed with by 18 library staff and disagreed with by 10. Most of the library staff felt that the problem of overdue fines can be resolved by making popular books available to the maximum number of users (17) and automating library circulation control systems (20) as elaborated in Ranganathan's model by Michelle and John (2005) rather than just charging overdue fines.

Table 22 below shows the amount of overdue fines charged at the selected university libraries.

**Table 22: Overdue Charges at Selected University Libraries**

| Category | Normal Overdue Charges per Day |        | Special Reserve Overdue Charges per Hour |        |
|----------|--------------------------------|--------|--|--------|
|          | Kshs.                          | Tshs   | Kshs.                                    | Tshs   |
| MTL      | 1.00                           | 10.00  | 2.00                                     | 20.00  |
| JKML     | 1.00                           | 10.00  | 2.00                                     | 20.00  |
| SNAL     | 10.00                          | 100.00 | 10.00                                    | 100.00 |
| UDSM     | 10.00                          | 100.00 | 5.00                                     | 50.00  |

**Source: Field Data 2000**

According to Table 22, the overdue fines charged at the selected libraries differ; for example, at MTL and JKML it is one (1/=) Kenyan shilling per day for general collection materials; and 2/= Kenyan shillings per hour for reserved materials, which is equivalent to (20/=) Tanzanian shillings at that time. The UDSM Library charges 100/= Tanzanian shillings (10 Kenyan shillings) per day for general collection materials and for reserved materials 50/= Tanzanian shillings (5 Kenyan shillings) per hour. SNAL charges 100/= per day (10 Kenyan shillings) for general collection materials, and Tshs. 100 for reserved materials. Overdue fines charged at UDSM Library and SNAL were higher than those at JKML and MTL. In fact library staff at the UDSM Library were proposing to raise the overdue fine for general collection materials to 500/= Tanzanian shillings (100 Kenyan shillings) per day. This could have a big effect on libraries which make their overdue fines exorbitant as it might lead to many library users continuing to withhold overdue books and intentionally not returning the books to the library. The researcher is of the opinion that overdue fines would have positive results if they are not high and may have negative results if they are extremely high. She recommends that it is better for the library to have an amnesty (at least once a year) whereby library users are allowed to return all the overdue books to the library without any penalty. Through this system a lot of books could be recovered.

**Table: 23: Total Registered User Population**

| Category | Undergrad. Students | Postgrad. Students | Academic Staff | Administrative Staff | External Borrowers | TOTAL  |
|----------|---------------------|--------------------|----------------|----------------------|--------------------|--------|
| MTL      | 3,800               | 380                | 315            | 280                  | 550                | 5,325  |
| JKML     | 4,264               | 1,080              | 1,820          | 940                  | 1,150              | 9,254  |
| UDSM     | 3,450               | 383                | 216            | 112                  | 55                 | 4216   |
| SNAL     | 1,500               | 201                | 250            | 200                  | 20                 | 2,171  |
| TOTAL    | 13,014              | 3,044              | 2,601          | 1,532                | 1,775              | 21,966 |

Source: Field Data 2000

Table 23 shows that there were a combined 21,966 registered library users in all the selected libraries: 13,014 undergraduate students, 3,044 postgraduate students, 2601 academic staff, 1532 administrative staff and 1775 external borrowers. However, the number of registered undergraduate students in each library was higher than other categories of users. That means that most undergraduate students rely heavily on the libraries as their key source of information.

Findings also reveal that all the libraries had subsidised photocopying services for students to minimise book loss and mutilation. Table 24 is self-explanatory.

**Table: 24: Photocopying Charges per page at Selected University**

**Libraries:**

| Category                        | Photocopying Charges per Page for Students |       | Photocopying Charges per Page for General Public |       |
|---------------------------------|--|-------|--|-------|
|                                 | Kshs.                                      | Tshs. | Kshs.  | Tshs. |
| Margaret Thatcher Library       | 3.00                                       | 30.00 | 3.00   | 30.00 |
| Jomo Kenyatta Memorial Library  | 2.00                                       | 20.00 | 2.00   | 20.00 |
| Sokoine National Agric. Library | 3.00                                       | 30.00 | 3.00   | 30.00 |
| University of DSM Library       | 2.50                                       | 25.00 | 3.00   | 30.00 |

Source: Field Data 2000

Table 24 shows that MTL charged K.shs. 3.00 per page, JKML Kshs. 2.00 per page, UDSM Tshs. 25.00 per page for (students) and Tshs. 30.00 per page (for staff and external borrowers). Each library had at least one photocopying machine. There is a need for libraries to increase photocopying facilities in order to minimise mutilation, theft, misplacement and retention of library materials. Subsidised photocopying can reduce the rate of book loss in libraries.

The loan period was also examined for each category of library user to find out if the loan period was adequate or not. Table 25 below shows the results.

**Table: 25: Loan Period for General Collection Materials**

| Category              | Name of Library |         |          |         |
|-----------------------|-----------------|---------|----------|---------|
|                       | MTL             | JKML    | UDSM LIB | SNAL    |
| Faculty               | 1 month         | 1 month | 3 weeks  | 3 weeks |
| Undergrad. Students   | 2 weeks         | 2 weeks | 3 weeks  | 3 weeks |
| Postgraduate Students | 1 month         | 1 month | 3 weeks  | 3 weeks |
| Administrative Staff  | 2 weeks         | 2 weeks | 3 weeks  | 3 weeks |
| External Borrowers    | 2 weeks         | 2 weeks | 3 weeks  | 3 weeks |

**Source: Field Data 2000**

Table 25 indicates that the loan period for undergraduate students at MTL and JKML is two (2) weeks compared with 3 weeks at SNAL and UDSM Libraries, but surprisingly the rate of book losses at the UDSM Library is higher than that of MTL, despite the short loan period. For postgraduate students and staff at MTL and JKML the loan period is one month and at UDSM and SNAL the loan period is 3 weeks. Basically there is no close relationship between book loss, overdues and the loan

period, except that short loan periods mean more work for circulation desk staff. Similarly, overdue fines do not appear to be a deterrent factor. Also, there is no close relationship between the total user population and book loss. For example, the total user population at the UDSM Library and the SNAL was lower than that at MTL and JKML but had higher book losses. However, respondents were of the opinion that lack of photocopying facilities could contribute to the high number of overdues and books lost.

**TABLE: 26: Permanent Library Staff & Their Educational Level and Professional Qualifications**

| CATEGORY | Total No. of Library Staff* | Certificate in Library Science |       | Diploma in Library Science |       | 1 <sup>st</sup> Degree |      | Masters Degree |       | PhD |       | Staff with Computer Skills Out of the Total Number |       |
|----------|-----------------------------|--------------------------------|-------|----------------------------|-------|------------------------|------|----------------|-------|-----|-------|--|-------|
|          |                             | F                              | %     | F                          | %     | F                      | %    | F              | %     | F   | %     | F  | %     |
| MTL      | 53                          | 5                              | 9.43  | 25                         | 47.17 | 5                      | 9.43 | 18             | 33.96 | (-) | (-)   | 40   | 75.47 |
| JKML     | 47                          | 6                              | 12.76 | 8                          | 17.02 | (-)                    | (-)  | 33             | 70.21 | (-) | (-)   | 31   | 65.95 |
| SNAL     | 40                          | 23                             | 57.5  | 7                          | 17.5  | (-)                    | (-)  | 10             | 25    | (-) | (-)   | 14   | 35    |
| UDSM     | 88                          | 38                             | 43.18 | 31                         | 35.23 | 2                      | 2.27 | 7              | 7.95  | 10  | 11.36 | 44   | 50    |
| TOTAL    | 228                         | 72                             | 31.58 | 71                         | 31.14 | 7                      | 3.07 | 68             | 29.82 | 10  | 4.39  |  | 56.58 |

Source: Field Data 2000 (\*Excluding Those on Study Leave)

F= Frequency      % = Percentage

Table 26 shows that MTL had 53 permanent staff, JKML 47, SNAL 40 and UDSM Library 88. In all the four surveyed libraries 72 Library Assistants had a Certificate in Librarianship, 71 had a Diploma in Librarianship, 7 had a first degree, 68 had a Masters Degree and 10 had PhDs. This last category was only employed at the UDSM Library. The majority of library staff in the four selected libraries were computer literate. However, regular updating of computer skills is crucial in order to cope with the changing information environment.

The four libraries have highly qualified professional librarians, UDSM Library having the highest number of PhDs, Masters Degrees, Diplomas and Certificates in Librarianship. Professional librarians are those with a masters degree and above in the field of library and information science. Even though the staffing situation at all the selected libraries appeared satisfactory, additional training would improve the quality of staff and service, and the status of librarians in these universities. Furthermore, librarians could enhance their image by teaching information literacy courses.

### **5.18 Economic Factors**

Respondents were asked if their salaries are adequate enough to enable them to purchase books and meet their basic needs. Table 27 below compares the salaries of academic staff from the level of Lecturer to Professor in the four universities surveyed.

**Table 27: Annual Salaries of Academic Staff plus Fringe Benefits in US Dollars in the Year 2000.**

| Name of University | Professor | Associate Professor | Senior Lecturer | Lecturer |
|--------------------|-----------|---------------------|-----------------|----------|
| UDSM               | 4,064.00  | 3,251.00            | 2,854.00        | 2,032.00 |
| SUA                | 4,161.00  | 3,458.00            | 2,546.00        | 2,167.00 |
| NAIROBI            | 9,112.00  | 8,238.00            | 7,286.00        | 6,379.00 |
| MOI                | 9,112.00  | 8,238.00            | 7287.00         | 6,379.00 |

**Source: Field Data 2000**

Table 27 reveals that teaching staff at Nairobi and Moi universities were more highly paid than their counterparts at Dar es Salaam and Sokoine universities. However, these salaries are not sufficient enough to enable them to buy academic books because they are very expensive. Therefore, most of the respondents found it cheaper to use the library than to buy books. Therefore, this diminishing economic power results in indifference to teaching and lack of commitment to education and more involvement in paid consultancy work. Academic staff members had no choice but to involve themselves in consultancy work and economic activities to generate extra income to make ends meet. Starvation salaries also contributed greatly to non return of books. For example, one respondent commented:

*I am not satisfied with my salary because I have a lot of family responsibilities to attend to and since the salary is low I ca not meet all my needs including buying books for teaching.*



**Table 28: Respondents' Satisfaction with Monthly Salary**  
**[Are you satisfied with your Salary?] ?**

| TOTAL<br>SAMPLE.<br>N= 115 | Name of<br>University | Respondents Employed |     |     |      | TOTAL |      |
|----------------------------|-----------------------|----------------------|-----|-----|------|-------|------|
|                            |                       | Yes                  |     | No  |      |       |      |
|                            |                       | F                    | %   | F   | %    | F     | %    |
|                            | Moi                   | 3                    | 2.8 | 36  | 34.0 | 39    | 36.8 |
|                            | Nairobi               | (-)                  | (-) | 20  | 17.2 | 20    | 17.2 |
|                            | Sokoine               | 2                    | 1.8 | 20  | 17.1 | 22    | 19.5 |
|                            | DSM                   | 1                    | 0.6 | 33  | 20.8 | 34    | 54.1 |
|                            | TOTAL                 | 6                    | 1.2 | 109 | 22.1 | 115   | 24.8 |

**Source: Field Data 2000**

**N.B.: This question was addressed to teaching staff only.**

As shown in Table 28, 115 (24.8%) of the total population were employed. For those who responded, 109(22.1%) who were the majority were not satisfied with their salaries. However, The Kenyan respondents were far better off financially than those in Tanzania because, apart from their currency being stronger than the Tanzanian shilling, they were also paid housing and transport allowances and this helped them to make ends meet. Students at the UDSM and SUA were also equally affected due to inadequate book allowances (See Table 9).

### **5.19 Summary:**

This chapter presented major findings of this study and revealed that library use at the four selected universities had increased over the past decade and that the library is a key source of information for most academic staff and students. Findings further revealed

that computerised circulation control systems are more effective in preventing book theft and improving the efficiency and quality of the service even though they do not completely eradicate book losses. The findings further revealed that inadequate salaries and book allowances contribute to high overdue, and retention of library materials. Also, the budget is an important aspect of library development and ensuring balanced collections. Further, findings reveal that libraries are not adequately funded to enable them to build balanced collections. The size of the library annual budget is therefore, an important indicator in determining the importance accorded to the library by the parent institution.

## **CHAPTER SIX**

### **DISCUSSION OF THE RESEARCH FINDINGS**

#### **6.1. Introduction**

This chapter discusses the findings based on the five research questions which guided this study. These questions were as follows:

1. What types of circulation control systems are used in the selected university libraries?
2. What factors contribute to book losses in the selected university libraries?
3. How do manual circulation control systems compare with computerised ones in terms of efficiency and effectiveness in controlling book losses?
4. What are users' views on circulation control systems in the selected university libraries?
5. What strategies can be used to improve the provision of circulation services to library users in the selected university libraries?

In order to understand the findings better the discussion will follow the arrangement of the research questions that guided this study in the following proposed order:

#### **6.2 Research Question 1: What Types of Circulation Control Systems are used in the Selected University Libraries in Tanzania and Kenya?**

Most university libraries in Tanzania and Kenya use the Browne charging system as a control system. Manual circulation control systems involve manual labour in the circulation of books to library users. The UDSM Library used the manual Browne

circulation control system up to 2001 and later on computerised all its library functions including the circulation control system. The SNAL and UDSM Library used a manual circulation control system while JKML used the same but with slight modifications. MTL was the only fully computerised library when the researcher was collecting data for this study.

Findings revealed that almost all the surveyed libraries which used manual circulation control systems experienced book loss. However, even in computerised circulation control systems with inbuilt security facilities have not been successful in eliminating book losses because the loss of books persists. Book losses are a symptom of a weak circulation control system. Findings further revealed that book loss is also caused by inadequate student book allowances, low staff salaries, low library budgets and the underdeveloped publishing infrastructure.

University libraries are the heart of university life and their key role is to provide access to current and relevant resources. The role of the university library is also to support the mission of the parent institution which revolves around teaching, learning, research and service to the community. The library does this by providing relevant resources, both print and non-print, to support academic programmes. In meeting these needs the library is guided by collection development and selection policies, user needs, programmes offered and also by its budget. Thus adequate funding is critical in order to build comprehensive collections to support quality university educational programmes. This is also supported by Ranganathan's fifth

theory (The library is a living organism) which means that the library would neither function nor meet its purpose if funds are inadequate.

The findings also revealed that libraries play a key role in the lives of the academic community and that library use in the selected academic libraries in Tanzania and Kenya is higher than it was during the 1980s and 1990s. This can be attributed to many factors, key among them being financial constraints, which limit both students and staff from buying books, and so, the only option is to borrow from the library. Users perceive circulation control systems to be efficient and effective only if they can have timely access to the resources and services. If this fails, then the system is not efficient and effective even if it is computerised. This serves as a reminder of Ranganathan's first law (Books are for use), when he emphasised that books must be put into circulation, so that they can be used where and when they are needed; and the second law (Every book its reader), with its emphasis on developing collections that every part of the population will be interested in. Ranganathan elaborates on this law by stating that "There are not certain books or collections that some audiences within the population cannot access" (Ibid, 2005). In other words Ranganathan opposes the idea of losing or stealing books from the library because this denies others their right to use them.

A comparison between the number of volumes and the ratio of holdings to the total user population (as shown in Table 5) shows that materials are often proportionate to the number of registered users. However, due to problems mentioned earlier, these

libraries have been losing a lot of valuable resources through theft, mutilation, misplacement, non-return or overdues.

Findings further revealed that bookshops and publishers in Tanzania and Kenya do not cater for the needs of universities; rather, they cater mostly for primary and secondary schools. This is not unusual given the small market for academic textbooks, which are also very expensive and beyond the means of teaching staff and students. This view is also shared by INASP (2002:2) when they state:

*Scholarly publishing should concentrate on publishing scholarly works. Because it is not popular publishing, its market is limited to a much smaller community than the general public. As such, it does not benefit from economies of scale in the same way as educational and general publishing do. The backbone of publishing in Africa is educational, and more specifically, primary education publishing, where once a book is approved as a textbook or supplementary reader, the print runs can be large and profit margins attractive. Contrary to this, scholarly publishing is constrained by limited demand – the number of scholars in every field being comparatively small.*

Therefore, publishers in Tanzania and Kenya should be encouraged to publish scholarly works in various academic disciplines to enable the academic community and the general public to have access to locally published scholarly works. These would be less expensive than the imported ones.

**6.3 Research Question 3: How do Manual Circulation Control Systems Compare with Computerised Ones in Terms of Efficiency and Effectiveness in Controlling Book losses?**

**Research Question 4: What are Users' Views on Circulation Control Systems in the Selected University Libraries?**

Findings revealed that MTL which was computerised had fewer book losses than JKML and SNAL. The UDSM Library also experienced less book loss than in the past. From the year 2001 onwards, after computerising its circulation control system book loss decreased. It can be concluded that computerised circulation control systems are more efficient and effective than the manual ones in controlling book loss.

Developments in ICT have had a major impact in the workplace. For example, in this study it was observed that at Moi University staff spent less time charging and discharging books. This was attributed to the computerised circulation control system which is more efficient, fast and accurate. At JKML, SNAL and UDSM Libraries, charging and discharging of books took more time because they used the Browne manual circulation control system which is cumbersome and time consuming.

Usually, users perceive the circulation control systems in university libraries in Tanzania and Kenya as effective and efficient if they are being well served by library staff, that is, if they are getting the relevant information they require for their academic achievement. If they do not, then the circulation control system is ineffective and inefficient even if it is computerised.

Respondents at the JKML, SNAL and UDSM Libraries felt that the manual circulation control systems in use were moderately effective. Therefore to them having a manual circulation control system does not necessarily mean poor services as shown in Table 19. For example, the UDSM Library, the SNAL and the JKML used manual circulation control systems but their services were better than those of MTL. From the respondents' responses, it can be seen that there are other factors which contribute to book loss and not necessarily the type of circulation control system in place, including laxity in enforcing rules and regulations, poverty, collusion between staff and borrowers and the poor quality of services offered. The researcher still believes that computerising the circulation control system (apart from building library collections and improving respondents' poor economic backgrounds) is of paramount importance.

The majority of the respondents who said book losses in libraries were on the increase were from JKML, UDSM Library and SNAL, unlike MTL where book loss had decreased. However, even libraries with electronic security systems experience book loss. For example, JKML, MTL and SNAL had electronic security systems and security guards manning the exit doors but they still experienced book loss.

Most respondents were of the opinion that computerised circulation control systems would reduce and finally eliminate book loss. However, computerisation can only minimise book loss but cannot totally eliminate the problem. For example, before



computerisation in the 1980s and 1990s, book loss at the UDSM Library was high. The total elimination of book loss from there would require that other security measures be put in place including training staff working at the circulation desk, adequate library budgets, enforcement of library policies, rules and regulations, as well ensuring staff integrity and user education, including information literacy. Attention should be paid to Ranganathan's Five Laws of Library Science which advocate for all that has been mentioned in this paragraph.

#### **6.4 Research Question 2: What Factors Contribute to Book Losses in the Selected University Libraries?**

##### **Research Question 5: What Strategies can be Used to Improve the**

##### **Provision of Circulation Services to Library Users in the Selected Libraries?**

Even though salaries were better in Kenya, the findings revealed that academic staff could not afford to buy books because they are too expensive. This is why most of them depend on the library as their key source of information. The diminishing economic power and starvation salaries equally impact teaching staff and force them to engage in other income-generating activities to supplement their income. Findings also revealed that university libraries in Tanzania were less well funded than those of Kenya. The UDSM Library, for example, had a very low budget between 1994/95 and 1995/96 academic years. For clarification see Table 29:

**Table 29: UDSM Library Budget 1994/95 and 1995/96**

| Type of Material | 1994/95         | 1995/96         |
|------------------|-----------------|-----------------|
| Books            | US \$ 27,508.42 | US \$ 18,656.11 |
| Periodicals      | US \$ 11,384.05 | US \$ 20,404.63 |
| TOTAL            | US \$ 38,892.47 | US \$ 39,060.74 |

**Source: UDSM Prospectus 1998/99, p. 31**

As Table 29 above indicates, during the 1994/95 academic year the government allocated to the library US \$ 27,508.42 for purchasing books and US \$ 11,384.05 to purchase periodicals (total: US \$ 38,892.47). In the 1995/96 academic years, US \$ 18,656.11 was allocated to buy books and US \$ 20,404.63 to buy periodicals (total: US \$ 39,060.74). During the 1995/96 and 1997/98 academic years the budget for buying books and periodicals was combined, and so it is difficult to compare the budget for books. The total amount for books and periodicals in 1997/98 was more than in 1994/95, but given the higher cost of books and the higher number of users, this increase was insignificant (University of Dar es Salaam Prospectus, 1998/99, p.31). The diminishing library budgets, starvation salaries and meagre student book allowances at the Universities of Dar es Salaam and Sokoine therefore contribute greatly to book loss, mutilation and theft. The four surveyed libraries were not doing stocktaking exercise because they claimed that it was expensive and time consuming. Lack of stocktaking exercise blinds librarians of their losses. Therefore, there is need for the libraries to do stocktaking regularly, at least once in every two years to find out how much has been lost from the collections so that a replacement can be made.

The findings in this study have shown that technology by itself does not completely prevent book loss in libraries, unless other factors are taken into consideration. For example, inadequate students' book allowances, low staff salaries and stringent book budgets contribute greatly to book loss, mutilation, theft and collusion between staff and library users. The findings corroborate those of Akinfolarin (1992) who attributed book theft in Nigerian university libraries to financial constraints, collusion between library staff and users to smuggle books out illegally; and irregular stocktaking. The study has shown that computerised circulation control systems can minimise book loss, but will not eliminate the problem completely. Stack (1998:25) also stated that public, academic, school and special library patrons steal library materials. He further went on to comment:

*In fact theft is so common in all types and sizes of libraries that its magnitude undermines many a delicate library budget balancing act. Closing book stacks and locking expensive materials are two sure means of thwarting thieves.*

(ibid, 1998:25)

Thus, according to Stack, problems can be minimised through closed-access collections. Stack's idea of closing the stacks contradicts Ranganathan's first law (Books are for use) which advocates for books to be put into circulation, and not just on the shelf, so that they can be used by many users. This law puts more emphasis on making sure that library resources are made available where and when they are needed. It also contradicts Ranganathan's third law (Every book its reader) which was fulfilled by opening the stacks and providing a well cross-referenced catalogue. In computerised libraries, to fulfil this law, it is necessary to update the OPACs

frequently, train library staff and users in how to get proper and relevant information by searching through the catalogues and on the databases.

Although there is no imperial evidence from this study, based on the observations and long working experience of the author as a librarian however, the difficulty in locating reading materials in the library can also be attributed to deliberate misshelving of books or journals by library users, which is not only a clear indication of lack of proper supervision but also scarcity of library materials, because the misshelving is designed to deny others access to scarce books in great demand. This is a reminder of Ranganathan's second law (Every book its reader) which emphasises that any patron from the library community must have access to the books in the library. To clarify this point Ranganathan goes on to say that "there are no certain books or collections that some audiences within the population cannot access. Collections should be developed that every part of the population will be interested in" (Ranganathan cited in Michelle and John, 2005). In this regard, Ranganathan puts more emphasis on the principle that the library should stock books that meet individual interests and needs.

The impact of poorly stocked libraries can be related to research question number 2: "What factors contribute to book losses in the selected university libraries?" Why was it that the conditions of students and staff were better in the 1970s and yet the salaries and the book allowances were very low? In the 1970s and before, students could afford to buy their books in the bookshops, and the bookshops and libraries were well stocked with academic materials and there was no book theft. At that time,

the socio-economic conditions of library users were much better than they are now and the value of the Tanzanian shilling was stronger than at the present time, and so, people could afford to pay for essentials like food, shelter, clothes, and water and electricity bills. Students' book allowances were also adequate and student enrolment was low. Despite the fact that there is a high intake of students, this has not gone hand in hand with an increase in library budgets, which creates book scarcity and further encourages mutilation and book theft as students struggle to meet their academic information needs amid diminishing resources.

Scarcity of materials of academic standard in university libraries has led to poor quality education in the sense that lecturers are unable to impart the relevant knowledge and skills to students who depend on lecture notes as opposed to independent learning by effectively utilising library resources. According to Mmari (2001:14), most often economic factors are cited as the cause of the low level of relevance and relatively poor quality of education programmes in Africa. Chachage (2001) attributes problems facing the education sector to educational reforms and to Structural Adjustment Programmes (SAP) which demanded cutbacks in government spending on education and other social services. Hence Chachage (ibid, 24) commented:

*It is with the implementation of such policies that the educational sector began to suffer from a serious dearth of facilities, such as books, laboratory equipment, etc. It became characterised by inadequate teaching personnel, poor staff development and motivation, poor infrastructure etc. Life in institutions of higher learning verges on the catastrophic: here at the University of Dar es Salaam there are overcrowded rooms because of expansion of enrolment without the necessary infrastructure; the faculty live and*

*work under conditions of drastically reduced below subsistence real wages which have forced some to migrate or find extra-academic employment (activities). They are also running with almost no equipment. The education sector is an endangered species due to the implementation of these 'education deterministic policies'.*

According to Chachage (ibid, 25), “these economic policy reforms have widened the gap between the rich and the poor and the increasing impoverishment and pauperisation of the great majority of the people as well as the poor quality of education”.

Mmari (2001:9) points out that when we talk of quality of education we mean “achievement of skills, knowledge, values and attitudes. Quality of education includes essential characteristics of the education system that are considered the goal of and beneficial to the individual, the education system itself and the wider society.”

According to Mmari (ibid, 13), quality education can also be in terms of “the inputs, resources and working conditions provided to teachers and students, curriculum content, teaching-learning resources, as well as the efforts and motivation of students.

The layout of most libraries also encourages book theft and mutilation. For example, in all the surveyed libraries, Reference Librarians who are supposed to be located where they can be easily seen by library users are most often located in cubicles or offices away from the overview of library users. Therefore, it is difficult for library users to ask for help when they need it because there is no Professional Librarian to provide immediate assistance to them. Again this is a reminder of Ranganathan's

fourth law (Save the time of the reader): Librarians must always be available in the library and be ready to provide reference and reader services to library users in order to save their time. The fourth law makes it clear that if readers find what they are looking for in a shorter time they will be more satisfied, and are more likely to feel that their needs have been met. In this regard, Ranganathan comments: “This not only makes the library service more efficient, but also makes the readers feel like their search has been an effective one”. (ibid, 2005).

The findings revealed that book losses in university libraries are aggravated by the socio-economic status of library users. In addition, the findings revealed that there is no relationship between the quality of library services and book theft, mutilation, book loss or habitual overdues and the type of circulation control system in use. Starvation staff salaries, inadequate students' book allowances and low library budgets need to be addressed by the relevant authorities in order to reduce pressure on libraries. Staff salaries, students' book allowances and library budgets should be increased. Publishers should also publish books of academic standard and sell them locally as these would be cheaper than those imported from abroad. The budget is an important aspect of library services, as it enables the library to provide quality services and to meet the needs of library users, therefore, libraries must be well funded to enable them to acquire adequate resources for users. In this case, the parent institutions must support the libraries financially. Librarians should also solicit for funding from donor agencies and also through fundraising campaigns. Friends of the libraries can also be invited to give donations.

### **6.5 Summary**

In summary, this chapter presented the discussion of the major findings of the study and dealt with how financial constraints affect libraries, students and lecturers in Tanzania and Kenya.

### **6.6 Contribution of this Study to New Knowledge**

This study has greatly contributed to new knowledge. The following have been discovered in the study:

1. Theft of library books originates inside the organisation:
  - (a) There is collusion of library users (both students and lecturers) in taking the books out of the library illegally.
  - (b) The problems arising during power failure (blackout) in the library:
 

library users take advantage of the darkness and decide to escape with library books which are illegally borrowed.
  - (c) When the electric power goes off there are failures in the circulation control systems, for example, the electronic security system (which prevents illegally borrowed materials going out of the library) stops functioning, and so library users escape with illegally borrowed books. Also since computers stop functioning the charging and discharging of books ceases or else the whole procedure has to be done manually instead of online, thus making the whole exercise at the circulation desk cumbersome and time consuming.
2. Automated circulation control systems are more expensive to run than manual



systems in terms of equipment, but are less expensive in terms of services (labour). Nonetheless, automated circulation control systems are more effective in providing the up-to-date and accurate data required for the monitoring of the library stock.

3. Despite computerisation of circulation control systems in libraries, book loss still persists. The computerisation of circulation control systems can only reduce the rate of book loss but can never eradicate the problem.
4. The financial constraints tend to encourage book theft, mutilation, illegal borrowing, extended overdues and overuse. In addition, low salaries for staff, inadequate book allowances for students and low budgets for libraries contribute greatly to book loss and mutilation in libraries.

## **CHAPTER SEVEN**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 Introduction**

The purpose of this study was to examine the efficiency and effectiveness of the circulation control systems in Tanzanian and Kenyan universities, identify factors that contribute to overdues, book theft, book retention and misplacement; and suggest the way forward. To achieve this aim the study was guided by five main research questions as outlined in chapter one, number 1.6.

The variables examined were associated with the types of circulation control systems in university libraries, the problems of circulation control systems, the users and library staff views regarding circulation control systems, the problems encountered by library users in searching for information in university libraries, and the social and economic factors contributing to book loss. In terms of methodology, this research was mainly qualitative in nature. Methods of data collection included a self-administered questionnaire, face-to-face interviews and observations.

#### **7.2 Summary**

The study used Ranganathan's theories (the Five Laws of Library Science) to examine circulation control systems in university libraries. According to the author of the thesis, the effectiveness and efficiency of circulation control system is influenced by a number of factors, including the types of circulation control systems

in place, the availability of affordable books in local bookshops and publishing houses, the economic status of library users, the integrity of library staff; and individual differences like gender, age, marital status and level of education. Less time is spent in computerised circulation control systems and more time is spent in manual circulation control systems when charging and discharging books. Quality and attitude of circulation desk staff can contribute to efficient or sloppy services at the circulation desk. Respondents consider a circulation desk as efficient if it improves the quality of service.

Key findings revealed that most respondents in all the four selected libraries use libraries and that, while usage frequency is high however, this differs from institution to institution depending on a number of factors including availability of relevant learning and teaching resources, effectiveness of the circulation control system in place, economic and social factors, competency and integrity of library staff. Furthermore, findings revealed that undergraduate students use the library more than either postgraduate students or academic and administrative staff.

The findings further revealed that only a few users buy their own books from local bookshops and publishing houses to supplement what is available in libraries. Existing bookshops and publishing houses never cater for the needs of academic programmes since their target market is primary and secondary school pupils.

Furthermore, the findings revealed that all the surveyed libraries lose books through theft, mutilation, extended loans, and collusion between staff and students. Factors

cited that contribute to book loss include inadequate students' book allowances, low staff salaries, low library budgets, and book scarcity. These factors also affect the quality of the library services offered.

Circulation control systems can be efficient and effective if they are fully computerised. In addition, library staff must be committed, to enable them to perform their duties effectively. On the other hand, if library staff are well paid, well motivated and are financially secure; and also, if the circulation control system is efficient and reliable they can perform their duties efficiently and effectively. An adequate library budget to purchase the required resources for various academic programmes is also a factor.

Computerisation of library functions including the circulation control system is crucial for enhancing the quality of services and minimising book theft, overdue, mutilation, etc. Although the computer can only reduce but not eradicate the problems of book theft in libraries, computerisation is necessary in order to cope with the challenges of the 21<sup>st</sup> century.

Information is a critical factor in day-to-day operations, and in supporting quality decision making, planning and implementation. In Tanzania and Kenya, the library is a key source of information for students and staff. Therefore, university libraries must be adequately funded in order to meet the information needs of the users and academic programmes offered at the universities.

### 7.3 Conclusions

Computerised circulation control systems are more efficient and effective in controlling book loss than manual ones. Manual circulation control systems can also be effective, though not to the same extent as computerised ones. Computerised circulation control systems can also allow book losses to occur and so, there is an urgent need to increase the library budget in order to acquire adequate resources for the various academic programmes offered at the University. This in the long run may eradicate the problem of book loss.

Inadequate book allowances, starvation salaries and lower book budgets tend to encourage book theft, mutilation, retention and misplacement. The study also proves that the library will continue to be a key source of information in the selected libraries.

To conclude this study, libraries must computerise their circulation control systems in order to reduce the problem of book loss. Also, the socio-economic conditions of library users (university staff and students) and university libraries need to be addressed by the relevant authorities in order to reduce the damage which the libraries are facing. The causes for the poor socio-economic conditions among staff and students of the university libraries in Tanzania and Kenya should also be investigated and cured.

Unavailability of publishing houses and bookshops leads to a shortage of materials and so users have to depend on the library to obtain information. Manual circulation control systems are not cost-effective in terms of the time they take and the facilities required for lending books to users. Computerised circulation control systems can improve efficiency and performance more than manual ones. On the other hand,

library staff should be taught public relations skills so that they are able to assist users in a more friendly and professional manner. There is also an urgent need to acquire adequate materials for library users. Undergraduate students are the main users of university libraries. This is not unusual because they form the majority, therefore libraries must be adequately funded to enable them to build balanced collections for running the academic programmes at the university.

#### **7.4 Recommendations**

If all the problems discussed in this study are not solved there will still be a lot of pressure put on the library to meet users' needs. Also, overuse of these meagre resources will result in wear and tear, high non-return rates, overdues, illegal borrowing and high mutilation rates. What is the permanent solution to these problems? The researcher strongly feels that the following needs to be addressed thoroughly:

The study makes recommendations from which a model is formulated for the application of a better circulation control system for the provision of better library services to library users in both Tanzania and Kenya. The recommendations made in this section have been derived from the conclusions stated in the study. The following need to be addressed:

##### **7.4.1 Computerisation [Automation] of Library Functions and Services**

Computerisation of all university library functions and services, including a circulation control system is necessary in order to enable library staff to offer library

services efficiently and effectively to library users, and so, be able to cope up with the challenges of the 21<sup>st</sup> century:

- (a) Large manual systems are rapidly becoming out of date and to a great extent they are inefficient. Therefore, all Tanzanian and Kenyan university libraries should computerise circulation control systems if they are to cope adequately with present-day demands so as to help circulation staff detect easily those who have over-borrowed as well as those with overdue books, and in order to improve record keeping.
- (b) Libraries should be urged to install an electronic security system device at the exit gates and library staff should be alert when this system is not functioning otherwise books can be taken out of the library illegally.

#### **7.4.2 Security**

- (a) The findings revealed that book theft, loss, mutilation, overdues and non-return of books were a common phenomenon in all four libraries visited. In view of this it is recommended that these libraries should strengthen security measures to minimise or eliminate book losses by improving the quality of services offered and by installing electronic detectors at exit points.
- (b) In addition, each library should computerise its circulation control system in order to enhance security and provide a quality service.
- (c) Furthermore, librarians should patrol stacks and reading areas in order to monitor possible delinquent library users who misplace books on shelves for them to use later.

- (d) In addition, those who expose book thefts or mutilation should be rewarded to encourage conformity and vigilance. Similarly, penalties for library abuse should be realistic.
- (e) Furthermore, the library should create a conducive reading environment in the library in order to discourage abuse of library resources. In this regard, there should be adequate reading space with adequate ventilation, clean toilets with water running and a quiet reading atmosphere.

#### **7.4.3 Funding**

A large number of library users would like to use the university libraries more often but are constrained by their lack of the required academic materials. The findings reveal that the inadequate library budgets provided by the countries' governments mean that the libraries are unable to provide adequate materials for their users. Therefore, the users scramble for the few resources available, causing loss, wear and tear of library materials. Therefore, it is recommended that:

- (a) Libraries should be adequately funded in order for them to meet their user needs and, in the process, prevent book losses. Also, in order for libraries to build balanced collections, librarians should also be proactive in soliciting funding from both donors and the local business community.
- (b) The university administration should increase the budget for buying books for the library to enable library staff build well-balanced library collections.



#### **7.4.4 Book Allowance**

The findings revealed that university students from the four surveyed libraries, particularly those from Tanzanian universities, are given very low book allowances which do not cater for their academic programmes. These findings further revealed that inadequate book allowances tend to encourage book theft, mutilation, retention and misplacement. Therefore, it is recommended that:

- (a) Students' book allowances and other university allowances, both in Tanzania and Kenya, should be increased taking into consideration that books are very expensive. This will enable students to purchase books for their academic programmes, so that stealing, mutilating and misplacing library books is thereby prevented.
- (b) The university administration should increase the budget for buying books in the library and it should support the library in various issues such as students' and staff clearance with the library.
- (c) Cost sharing with students: both private and government-sponsored students should contribute at least 8% to 10% of their fees to the university library for purchasing resources and improving library services.
- (d) Library staff must also be active in soliciting additional funds from the local business community and various donor agencies (by writing project proposals) and conducting fund-raising activities to enable them to build balanced collections to meet their users' needs.

#### **7.4.5 Staff Salaries and Other Fringe Benefits**

The Governments of Tanzania and Kenya should improve all university staff salaries and other fringe benefits to enable them to buy resources for their academic programmes.

#### **7.4.6 Training**

Lack of training in the library and information science profession, especially in computer knowledge, information literacy skills, and public relations/ customer care, is a major contributing factor hindering the provision of efficient and effective library services to library users. Therefore, each University Librarian/Library Director in Tanzania and Kenya should make sure that his/her staff in the library are given proper training in these skills to enable them to offer library services to users efficiently and effectively. This would include in-house training and training within and outside the countries.

(a) Since there is shortage of skilled well-trained library staff in some of the surveyed libraries, there is need to train manpower personnel, particularly in computer skills in university libraries.

(b) Organisations should as a matter of policy encourage their members of staff, especially the library personnel, to participate in seminars and workshops on computer application to libraries. This can be complemented by in-house organised training to familiarise workers and library users with the hardware and software components of their computer systems. The training programmes should involve typists and secretaries who may be used as data entry clerks. The training should expose them to the rudiments of data processing and data entry techniques.

#### **7.4.7 Legal Measures**

Studies show that electronic security systems can be effective book theft deterrents, but alternative theft prevention programmes must be put in place. For example, trained security men with qualifications in the library and information science profession can check books at the main exit gates. This is because electronic security systems sometime do not function properly if they are out of order and also if there is power failure. Therefore, it is recommended that:

(a) Librarians must lobby for stronger statutes for the conviction and prosecution of library crimes, because if criminals are aware that they will be prosecuted if caught, they will think twice before attempting such crimes.

(b) Library staff working at the service points should be more vigilant while on duty.

The library has a duty to protect its collection in the interests of users. The library therefore must impose sanctions on those individuals who are caught with stolen books.

#### **7.4.8 Maintenance and Repair**

Lack of spare parts to maintain and repair photocopying machines, computers, printers and other facilities required for automation is another problem. Hence there is need for buying stand-by spare parts for maintenance. Otherwise failure to maintain and repair the equipment leads to a lot of inconveniences and a delay in services to library users, library staff and the library administration.

#### **7.4.9 Photocopying Services**

Lack of or inadequate photocopying facilities in the library leads to book loss, book mutilation and book misplacement by library users since library users are not able to photocopy materials which they require for their academic programmes. Library staff should improve photocopying facilities to enable library users to photocopy some pages of documents instead of running away with library materials. Due to this problem the following is recommended:

- (a) Photocopying machine services: the library should make sure that there are adequate photocopying machines on each floor of the library. Wherever possible, coin operated machines should be used for self-service to avoid long queues. Photocopying should also be subsidised by the library management to minimise mutilation.
- (b) The trend for many university libraries nowadays is for the libraries to privatise photocopying services. It is therefore recommended for University Libraries to privatise this service so that the photocopying services are put under the management of experts, and indeed this relieves the library from the problems of managing the services which is very delicate, and coupled with frequent breakdowns.

#### **7.4.10 Stable Power Supply**

- (a) Given the unstable power supply, circulation desk staff must ensure that torches have batteries or bulbs in order to prevent students from succeeding in escaping with library books during blackouts. This is because in the darkness students can steal

books and sneak past the circulation desk staff before power is restored by a standby generator.

(b) Also, continuous instability in electric power supply tends to disrupt library services including electronic security devices. Therefore, each library should buy a standby generator in order to ensure continuous power supply.

#### **7.4.11 Amnesty on Fines**

Library users, particularly academic staff, from the four surveyed libraries, especially those from the UDSM Library, did not bother to return books to the library. This was common before computerisation of library services, whereby library users retained books for good or for a long time and also there were many overdue cases. It is therefore recommended that:

- (a) An Amnesty Week should be declared at least once a semester in each library in order to encourage the return of overdues and to reduce book theft and mutilation.
- (b) In addition, public relations campaigns should be used in order to appeal to the consciences of users regarding the harmful effects that library abuse has on teaching, learning and research. The use of signs, notices, circulars and newsletters should also be promoted to send messages on these issues.

#### **7.4.12 Penalties and Sanctions**

Stealing library materials is a crime since this denies others from benefiting from the accumulated knowledge of their peers. In view of this it is recommended that:

- (a) Students should pay the replacement cost of books lost.

- (b) Students found stealing should be dismissed, suspended or prosecuted and should pay for lost or damaged books in their possession]
- (c) Books in great demand: should be bought in multiple copies with at least one copy placed on reserve. A provision of multiple copies of library materials coupled with a better library service would help to prevent book theft. This is because if any library item is readily available on demand, there is less temptation to steal.
- (d) When students are about to graduate or when staff retire or resign they must clear their record with the library. Those with overdue books must pay the fine or else their certificates are withheld in the case of students; and in case of staff, the total overdue is deducted from their salary or retirement benefits. For ongoing students their borrowing privileges are withdrawn until the overdue fine is settled.

#### **7.4.13 Stocktaking**

Library staff from all the four surveyed libraries did not do stocktaking and their main reason for this was inadequate funds to do the exercise. The researcher sees the exercise as being most important and therefore recommends the following:

Stocktaking in libraries should not be a choice but compulsory for all the libraries since it helps library staff to know how many items they have lost so that they can be replaced and security measures intensified. Stocktaking however is costly and time consuming but is an important aspect of good library management.

#### **7.4.14 Orientation and Sensitisation**

Library staff were asked how often they conducted user education programmes for their library users, especially new students and lecturers, and almost all of them

stated that they had a special library orientation programme for new undergraduate students at the beginning of the academic year. The researcher strongly feels that, this type of training is not adequate because in order to make the users information literate and also to enable them to acquire adequate skills for searching for both print and electronic resources from the library, they need to be trained on a continuous basis. Also, the training should not only include library orientation but also other intensive user education programmes including bibliographic instruction and information literacy. In this study, it is therefore recommended that:

- (a) User education/orientation and instruction in library use should emphasise that library materials are meant to meet the needs of users and that they are not to be stolen, mutilated, hidden, etcetera. The way forward is through educating users to become responsible citizens. Pederson (1990:120) suggests that “staff should watch carefully for and be aware of those students having trouble using the library and possibly looking for help, thus reducing the frustration level that may ultimately lead to desperate measures”. Likewise librarians in the libraries surveyed should do the same.
- (b) Librarians, university administrators and library users should view the university library as a document transfer and data access and processing system designed to facilitate access to information for library users who most often cannot afford to buy their own books. In this respect, the Library Circulation Unit should be viewed as a management information system.

#### **7.4.15 Library Policy**

Although the four surveyed libraries understand the need for a written policy for lost or damaged books, none of them had such a policy at the time of collecting the data. The UDSM Library is waiting for its policy to be approved by the university higher authority. Therefore, it is recommended that each library should have a written policy and the policy should be widely publicised through various media, including students' newsletter, student government, library guides, brochures, and posters displayed on all public notice boards. This is essential in order to reach different categories of users.

#### **7.4.16 Library Rules and Regulations**

A person who intends to become a member of a Library would like to know the privileges of a member. A member may have lost a book borrowed by him. He would like to know the rules regarding this. In view of the above, it becomes necessary for each library to have a set of rules and regulations. The situation and approach may differ from library to library:

- (a) Hours of opening
- (b) Rules regarding administration of the library and
- (c) Privileges of borrowing may vary.

Therefore, different libraries will need different sets of rules. However, general rules would have some similarity. The rules will help the users as well as the staff and would prove to be useful in the management of the library.



#### **7.4.17 Collaboration with Student Governments**

This study shows that students colluded with library staff to take books out of the library without following the right procedure of borrowing at the circulation desk. Also, book mutilation, book misplacement on the shelves within the collections and overdue loans for general collection materials were common in all the surveyed libraries. It is therefore recommended that:

- (a) Librarians should work closely with university student governments to ensure that the procedure, policy and penalties are supported by the student governments. For instance, at the University of Dar es Salaam, DARUSO, the student government, should work closely with library staff to solve this problem. The library should demonstrate that they want to support students in their studying and provide a good service, but can only do so with the active cooperation of the students (library users).
- (b) Library staff should also be warned that library materials are not for business but for academic use and that it is a great offence to collude with students to smuggle books out of the library. Induction courses should be offered in the library to caution and sensitise library staff on this major offence. Also, library staff who report such major offences to higher authorities must be rewarded to encourage them and other staff to carry on the exercise without any fear.

#### **7.5 Advice to all Information Professionals**

It is advised that all Librarians and Information Specialists should follow (very seriously) Ranganathan's Five Laws of Library Science and implement them in their profession. It is believed that the laws are very scientific and are therefore relevant

at all times, although they were formulated in 1931. Most of the professionals in library and information science strongly agree with Ranganathan. For example, in 1998, Librarian, Michael Gorman (past president of the American Library Association, 2005 – 2006) recommended the following laws in addition to Ranganathan's five laws in his small book, "Our Singular Strength":

- (a) Libraries serve humanities
- (b) Respect all forms by which knowledge is communicated
- (c) Use technology intelligently to enhance service
- (e) Protect free access to knowledge
- (f) Honour the past and create the future.

## **7.6 Areas for Further Research**

- (a) A comparative study between university libraries within the different regions in Africa: East, West, Central, North and Southern African countries, those with computerised circulation control systems and those with relatively manual circulation control systems, should be conducted to examine the reasons for their efficiency and effectiveness and vice versa.
- (b) More research needs to be done in the area of circulation control systems. As technology is increasing and the technical world is further alienating those with access to resources from those without, the need for safeguarding measures is imperative.
- (c) By studying the causes of book loss in university libraries, comparing them with those of other types of libraries and then developing ways of solving them, the social and economic problems of library users, libraries and universities, can hopefully be

eliminated or at least be reduced. This is necessary if information is to be available in libraries and also equally distributed among library users of all levels.

Another area for further research would be the effects of computerised circulation control systems on the labour market, that is, the impact of computerised circulation control systems in the light of eradicating manual circulation control systems may be creating unemployment.

- (d) By considering how computerised circulation control systems can work efficiently and effectively in university libraries, one may be able to develop extremely effective information dissemination systems. Also, one may propose a model that will assist in better computerised circulation control systems application in the process of providing information to library users of all levels in university libraries.

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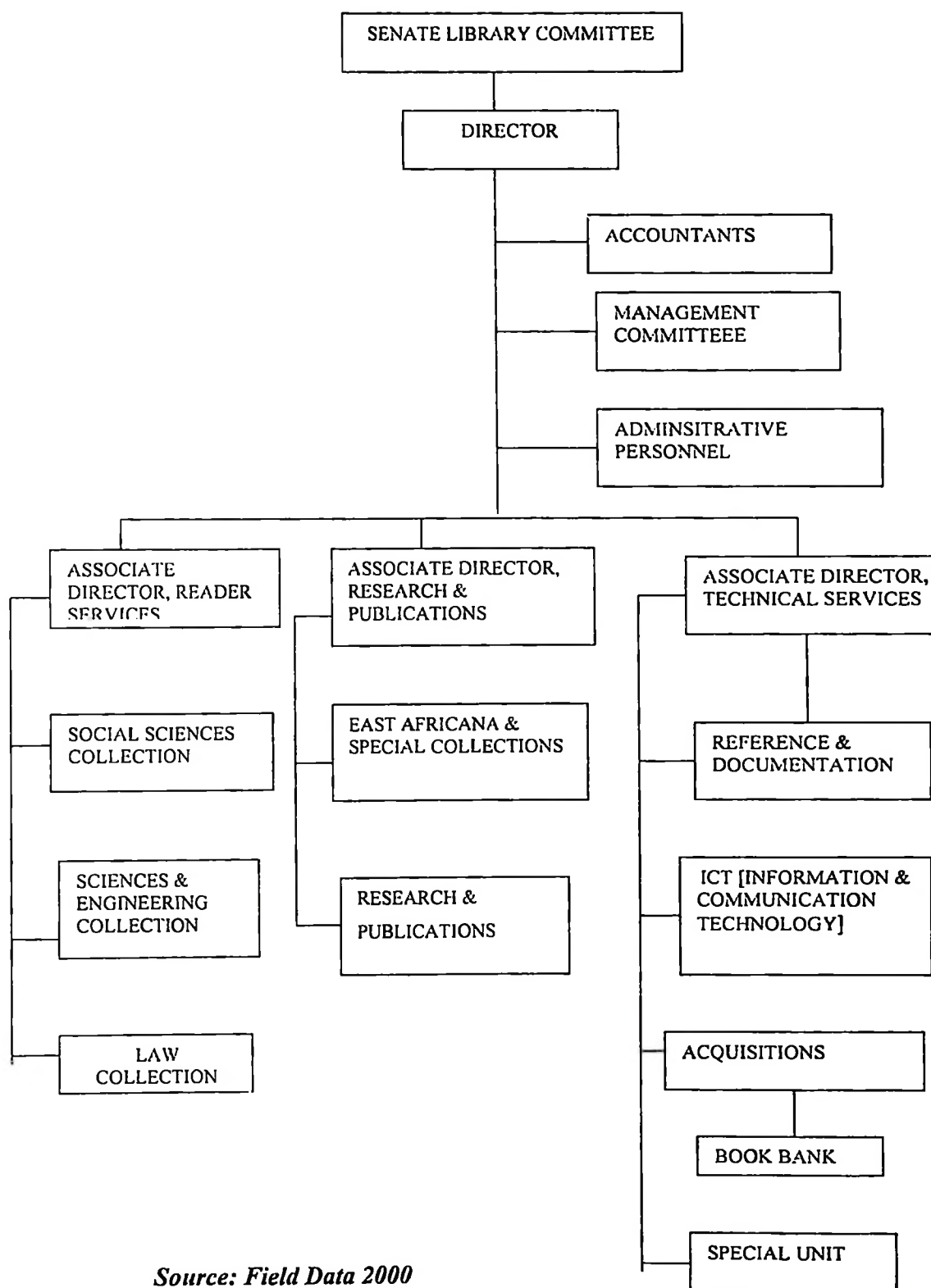
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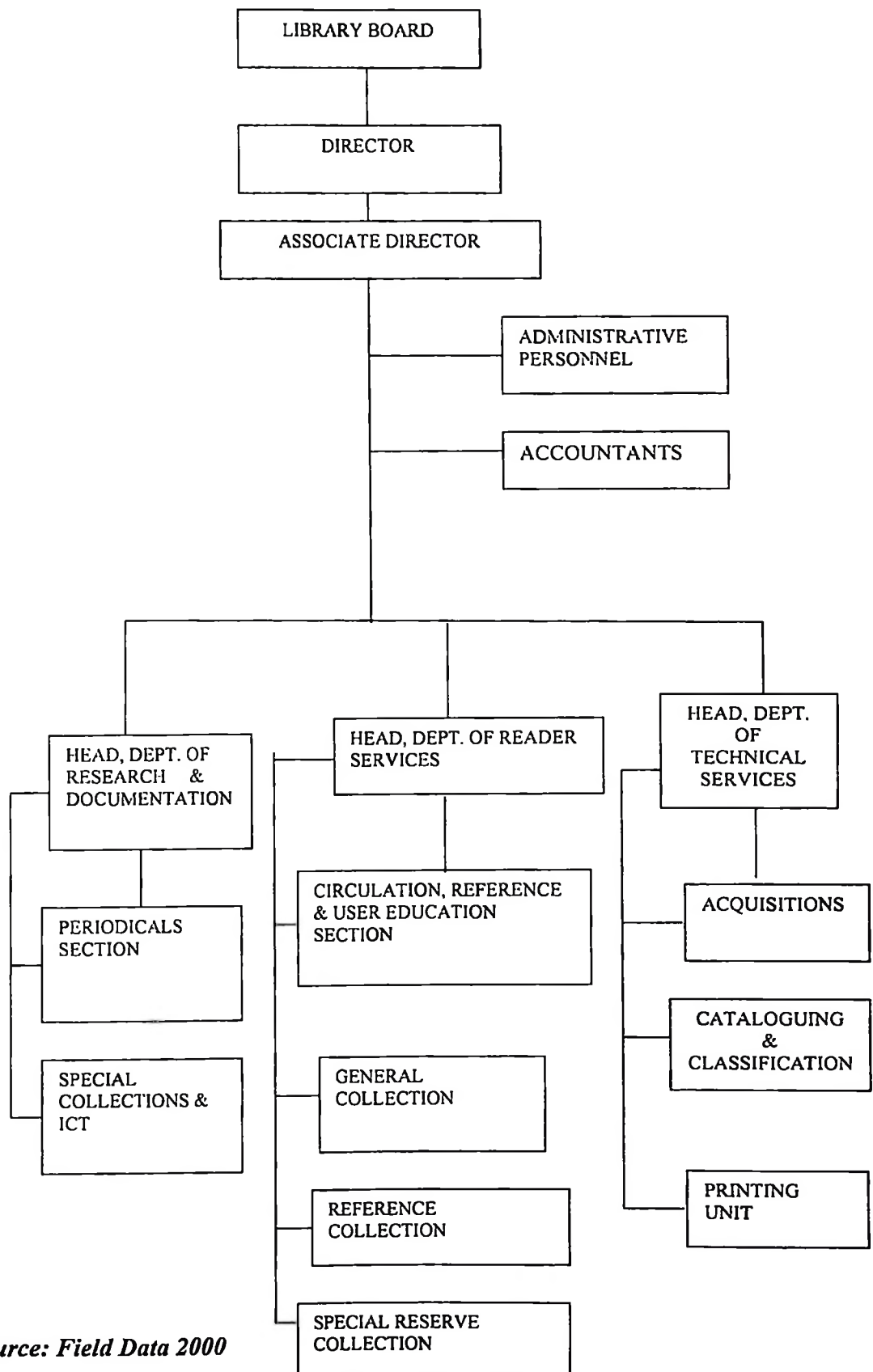
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**APPENDIX 1.1: THE PROPOSED UDSM LIBRARY ORGANISATIONAL STRUCTURE:**

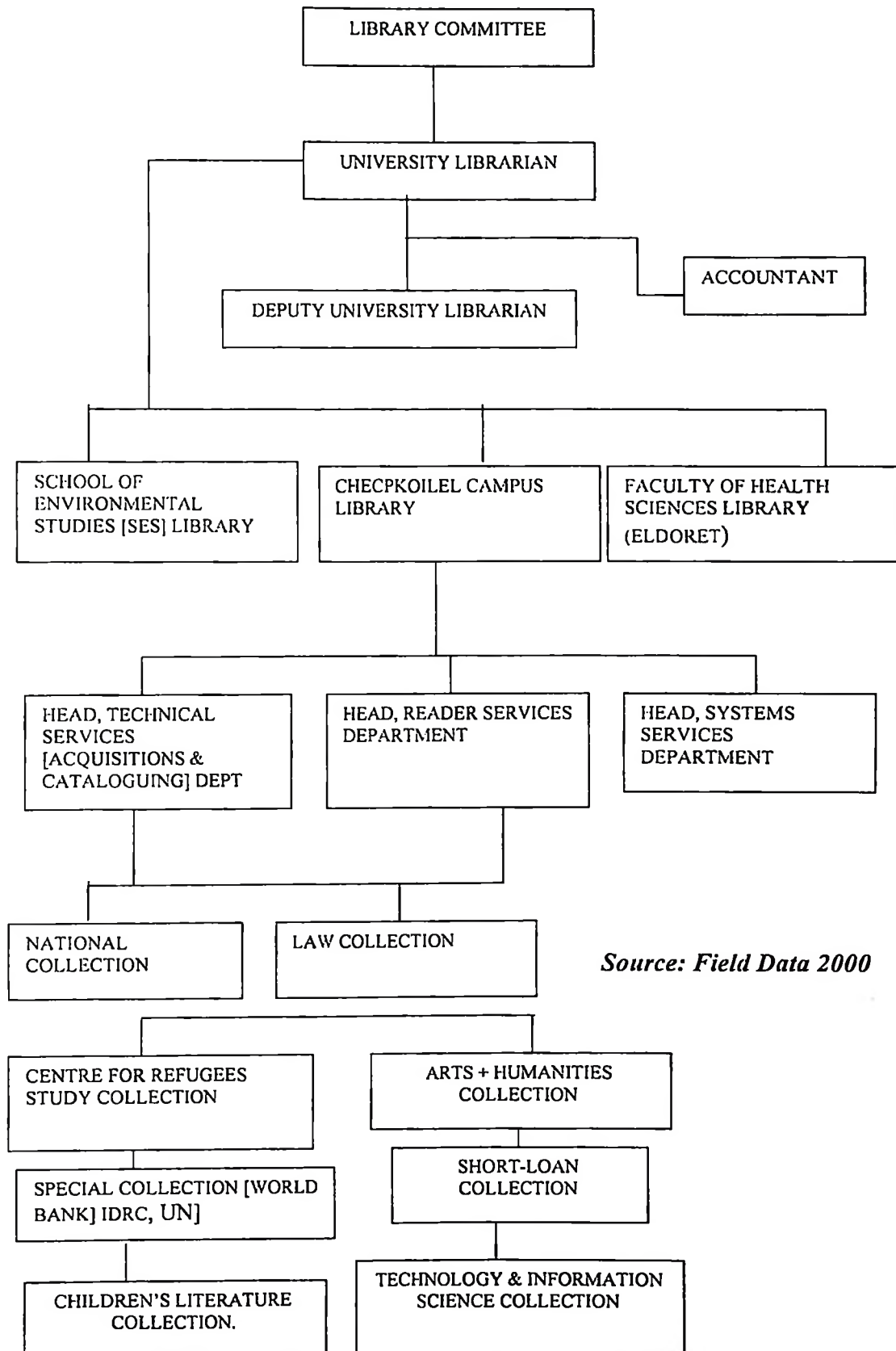


*Source: Field Data 2000*

**APPENDIX 1.2: THE SNAL ORGANISATIONAL STRUCTURE:**

*Source: Field Data 2000*

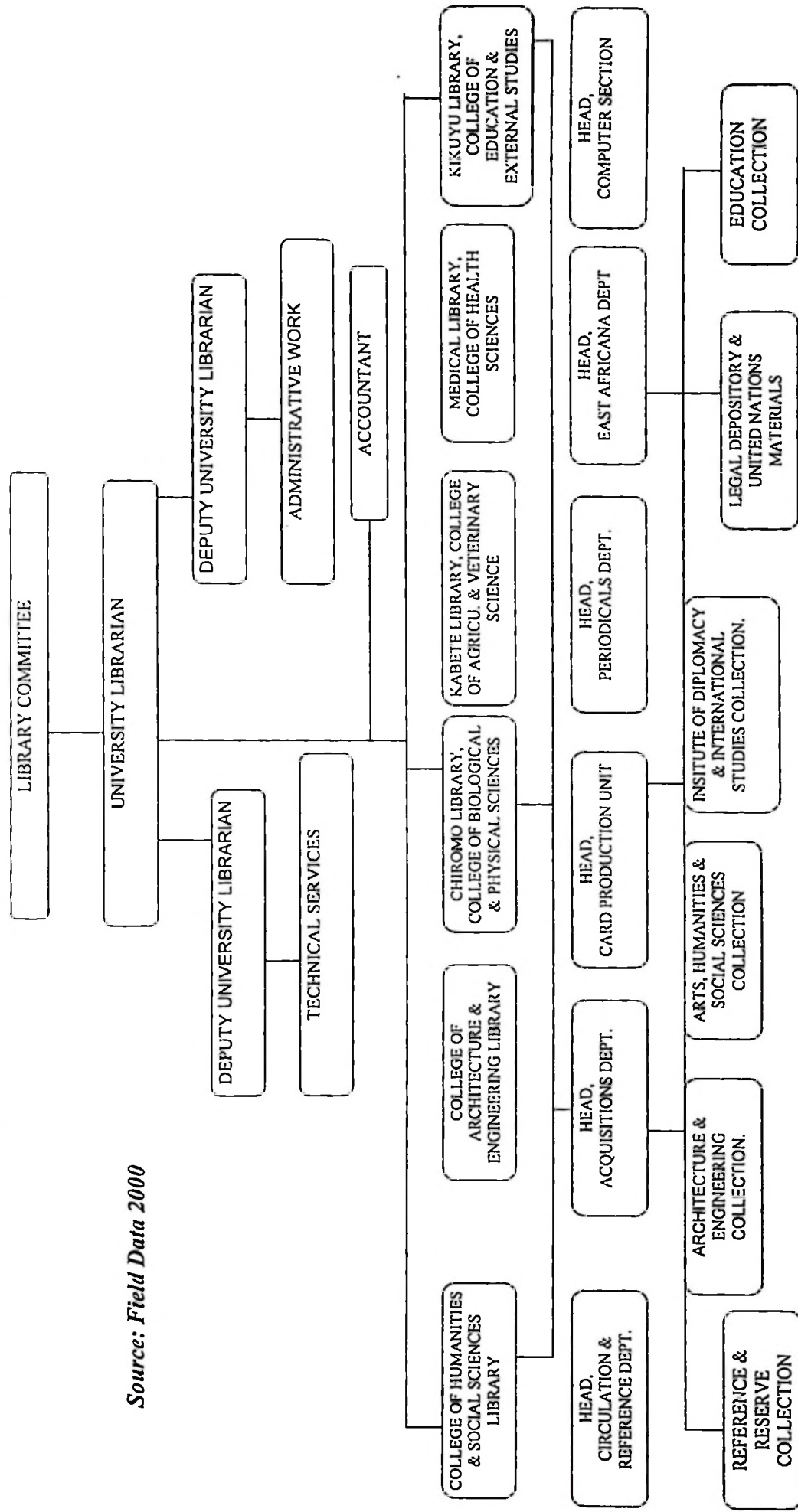
**APPENDIX 1.3: THE MARGARET THATCHER LIBRARY  
ORGANISATIONAL STRUCTURE:**



*Source: Field Data 2000*

# APPENDIX 1.4: THE JOMO KENYATTA MEMORIAL LIBRARY ORGANISATIONAL STRUCTURE

Source: Field Data 2000



## ***APPENDIX 1.5: LIBRARY USERS' INSTRUCTIONS***

### **Library Users Survey**

This survey is part of a study being conducted for a dissertation which will be presented at the University of Dar es Salaam, Tanzania, in fulfilment of the requirements for the Degree of Doctor of Philosophy. The study is concerned with the Examination of the Efficiency and Effectiveness of the Circulation Control Systems in Academic Libraries in East Africa: Case Studies From Tanzania and Kenya.

Please express your honest opinion about the subject. You should feel free to answer each question exactly as you see it. Your views are valuable and of significance to the survey being conducted.

This survey is also a benchmark for progress. The survey results will be used by the college and university libraries in East Africa in improving library services to library users. Also, the university administrators will use the results in determining areas in the libraries which need improvement.

All responses will be held in the strict confidence. This is a confidential survey.

Thank you very much for helping me in this important project. Your cooperation and assistance in answering the survey questions is highly appreciated.

---

Ms. Chausiku M. Kapaya  
Assistant Librarian, Reader Services Department  
Main Library, University of Dar es Salaam.

QUESTIONNAIRE NO.: \_\_\_\_\_

**APPENDIX 1.6: LIBRARY USERS SURVEY**

**Survey Instructions:** Please read the questions very carefully. There are 69 questions in this survey. Some questions are for all Library Users, some are for University Members of Staff only and some are for University Students only. Use a ballpoint pen to complete this survey. Fill in the blanks or circle the answer or answers you choose. In some of the questions, you will be required to circle more than one answer, e.g., (i) (ii) (iii) (iv). Only circle the answers that apply:

1. Name of Institution : \_\_\_\_\_
2. City/Town: \_\_\_\_\_
3. Country: \_\_\_\_\_
4. Faculty : \_\_\_\_\_
5. Department/Section: \_\_\_\_\_
6. Age: \_\_\_\_\_
7. Gender: \_\_\_\_\_
8. Marital Status: \_\_\_\_\_
9. Number of Children: \_\_\_\_\_
10. Date: \_\_\_\_\_
11. Time: \_\_\_\_\_
12. Which currently describes your status at this University?
  - (i). Undergraduate Student ( Skip question 13, go directly to question 14)
  - (ii). Graduate Student (Skip question 13, go directly to question 14)
  - (iii). Staff Member (Academic) [Answer question 13]
  - (iv). Staff Member (Administrative) [Answer question 13 ].
13. How many years have you worked in this University?  
\_\_\_\_\_



14. Where do you get the books that you need for your University Programme?

(Circle all that apply):

- (i). University Bookshop
- (ii). Local Bookshops in town
- (iii). Publishing Houses
- (iv). Main University Library
- (v). Library in my department
- vii). Other (please specify): \_\_\_\_\_

15. What is your perception of the state of the bookshops in your country?

16. What types of materials are mainly sold in your local publishing houses and bookshops? (Please circle all that apply):

- (i) Primary and Secondary School text books and stationery
- (ii) Text books and other materials of academic standard
- (iii) Reference materials e.g. Dictionaries and Encyclopaedias
- (iv) Other (Please specify): \_\_\_\_\_

17 (a). What is the state of the Publishing Industry in your country? (Please circle one):

- (i) No answer
- (ii) Bad
- (iii) Very bad
- (iv) Good
- (v) Very good

17 (b). Add any comments on the state of the Publishing Industry in your country:

18 (a) Do you have a **Text Book Centre** in your Institution?

- (i) Yes
- (ii) No

18 (b) How do you find the establishment of a **Text Book Centre** in your institution?

- (i) Do not think it is appropriate
- (ii) May be a good idea
- (iii) Very useful

18(c) Give reasons for your answer to question 18 (b):

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**Questions 19 to 26 are for students only:**

19. What do you feel about earning a wage?

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20 Are you employed?

- (i) Yes (Answer questions 21 to 25))
- (ii) No (Skip questions 21 to 25,)

21. Who is your employer?

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22. Mention the job you are doing (including your professional grade):

- (i) Job: 

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- (ii) Grade: 

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23. Has your employer given you a paid study leave?

- (i) Yes (Answer questions 24 and 25)
- (ii) No (Skip questions 24 and 25 , go directly to questions 26)

24. How much is your current salary?

Tshs./Kshs. \_\_\_\_\_

25. How do you spend your salary?

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26. What is your parents' employment?

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27. How do you get materials that you need for your academic activities?

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28. Apart from yourself, do you get money from other sources to purchase your books?

- (i). Yes (Please answer questions #29 and #30.)
- (ii). No (Please skip questions # 29 and #30. Go directly to question # 31.)

29. Which of the following sources provide you with the funds to purchase books?

(Circle all the answers that apply):

- (i). The Government
- (ii). Institutional Funds (funds provided by the university)
- (iii). International Organisations
- (iv). Parents
- (v). Employment
- (vi) Personal financial support (Skip question 30, go directly to question 31).

30. Indicate the amount you get for buying books in an academic year:

\_\_\_\_\_ \*Tshs./Kshs., US \$, Pound Sterling, etc. \*Cross out the types of money you are not receiving.

31. How often do you visit the University Library? (Please circle one answer only):

(i). Everyday/daily

(ii) Once a week

(iii). Two times a week

(iv) Three times a week

(v). Never

(vi). Indicate the frequency yourself: \_\_\_\_\_

32. Have you ever used the Reserve Collection (the short loan collection) of the library?

(i). Yes (Please answer questions # 33 and #34.)

(ii). No (Please skip questions # 33 and #34. Go directly to question #35.)

33. How often have you used the Reserve Collection? (circle one answer only):

(i). Everyday

(ii). Once a week

(iii). Two times a week

(iv). Never

(v). Indicate the frequency yourself: \_\_\_\_\_

34. How do you rate the quality of the Reserve Collection? (Circle one answer only):

(i). Very low

(ii) Low

(iii) Average

(iv) High

(v) Very high

35. Books in the library collections are: (Circle one answer only)

- (i). Easy to locate
- (ii). Difficult to locate, I have to ask the library staff.
- (iii). Hard to find and no one else seems to know where to find them either.

36. Do you borrow books from the Library?

- (i) Yes (Please answer question 37 and 38)
- (ii) No (Please skip questions 37 and 38, go directly to question 39)

37. How much time do you spend to charge out a book (to take it out of the library from the Issue Desk)?

- (i) 30 seconds to one minute
- (ii) 2 to 3 minutes
- (iii) 3 to 4 minutes
- (iv) More than 5 minutes
- (v) Other (please specify): \_\_\_\_\_

38. How much time do you spend to return a book to the library (at the Issue Desk)?

- (i) 1 to 2 minutes
- (ii) 2 to 3 minutes
- (iii) 4 to 5 minutes
- (iv) 10 to 15 minutes
- (v) Other (please specify): \_\_\_\_\_

39. The system of checking in and checking out books at the **Circulation Desk** of our main library (Please circle one answer only):

- (i). Seems to serve library users well
- (ii) Does not serve library users well
- (iii) Is good but needs improvement
- (iv) No opinion

40. Have you ever reserved an item at the circulation desk of your library? (Please circle your answer):

- (i). Yes (Please answer question #41)
- (ii). No (Please skip question #41. Go directly to question #42)

41. How do you rate the speed in which you managed to obtain the item you reserved? (Please circle your answer):

- (i.) Did not get the item at all
- (ii). Very slow
- (iii). Slow
- (iv). Fast
- (v). Very fast

42 (a). How effective is your system of borrowing and returning books to the Library?

- (i) Very effective
- (ii) Moderately effective
- (iii) Effective
- (iv) Not effective

42(b) Give reasons for your answer to question 42 (a):

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43 (a) Are the book losses in your library becoming less or more?

- (i) Book losses in our library is increasing now compared to the past
- (ii) Book losses in our library is decreasing now than in the past
- (iii) No opinion

43 (b) Give reasons for your answer to question 43 (a)

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44. Do you have any overdue books (books not returned on time)?

- (i) Yes (Answer question 45)
- (ii) No (Please skip question 45, go directly to question 46)

45. How many times in the past year have you received overdue notices? (Please circle one answer only):

- (i). None
- (ii) Once
- (iii) Twice
- (iii). Less than three times
- (iv). Three times only
- (v). More than three times
- (vi) Other (please specify): \_\_\_\_\_

46. Indicate the reasons which you genuinely feel are valid for retaining books longer than the library permits you by circling the appropriate level of agreement for the answers listed below: Strongly Agree, Agree, Neutral, Disagree, or Strongly Disagree. (Please circle all that apply):

|   | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-------|---------|----------|-------------------|
| (a) Sometimes I lend my library books to someone else who doesn't bother to return them   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (b) The loan period is too short for me to complete my references to the book   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (c) The book is basic to the course I am studying/teaching for the whole academic year.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (d) The book is out-of-print and, therefore, can not be obtained easily.  | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (e) My academic/research work requires constant consultation of the book.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (f) Sometimes I go on leave without realising I have library books  | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (g) Sometimes I feel like retaining the book because I cannot afford to purchase a copy of my                                   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (h) The amount of books I check out of the library is so many that I fail to read all of them before the due date.              | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (i) Sometimes it is human error; I just forget to return the books to the library.  | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (j) I rely on getting reminders from the responsible library staff.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (l) Books are too difficult to locate in the library collections, hence, I feel like possessing the ones I do manage to obtain. | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (m) I just don't feel like visiting the library all the time.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |



47. In the next set of questions, we would like your opinions about some statements. Circle the number under the words that indicate how you feel about the statement. The answers are categorised below as Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. (Please circle the most appropriate answer for each statement):

|  | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-------|---------|----------|-------------------|
| (a) I am aware of the university library rules and regulations (policies).                                     | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (b) The university library policies are fair.  | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (c) I clearly understand the reasons for the policies.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (d) Overdue notices and fines are accurately, fairly, and consistently sent to library users by library staff. | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (e) The hours the library is open during both the weekdays and weekends is adequate for me.                    | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (f) The library is clean and quiet with a reading atmosphere.  | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (g) The library has good up-to-date books in its collection.   | (v)            | (iv)  | (iii)   | (ii)     | (i)               |
| (h) I have experienced good customer service in my visits to the university library.                           | (v)            | (iv)  | (iii)   | (ii)     | (i)               |

48 (a) How do you rate the services rendered at the Circulation (Issue Desk) in your library? (Please circle one):

(i). No opinion

(iv) Good

(ii). Poor

(v) Very Good

(iii). Very poor

48 (b) Add any comments on services at the desk:

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49 (a). How do you rate the attitudes of the library staff at the circulation (issue) desk when you go for help in getting services? (Please circle one):

- (i). Very Good
- (ii). Good
- (iii). Inconsistent
- (iv). Bad
- (v). Very Bad

49(b) Add any comments about the attitudes of the circulation (issue) desk staff:

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50. Does your library have a suggestion box (a box which provides useful feedback from all users including staff and students)?

- (i). Yes (Please answer questions #51 and #52)
- (ii). No (Please skip questions #51 and #52. Go directly to question # 53)
- (iii). Don't Know (Please skip questions #51 and #52. Go directly to question # 53.)

51. Have you ever submitted a suggestion to the library for improvements?

(i). Yes (Please answer question #52)

(ii). No (Please skip question #52)

52. Were your suggestions fulfilled by your library? (Please circle one):

(i). Always

(ii). Sometimes

(iii). Rarely

(iv). Never

(v). Don't Know

53. How much money do you receive per academic year to run your academic programme? (This question is for STUDENTS only):

\_\_\_\_\_ \* Tshs./Kshs., U.S.S, Pound Sterling, etc.

**Questions 54 to 61 are for staff only:**

54. Staff: How much money do you earn per month, i.e., your monthly income or net salary? \_\_\_\_\_ \*Tshs./Kshs., US \$, Pound Sterling, etc.

55(a). Are you satisfied with your salary?

(i) Yes

(ii) No

55 (b) Please give explanation to your answer to question 55 (a):

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56. How do you compare what you earn now and what you used to get in the past?

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57. Do you work overtime?

(i) Yes (Please answer questions 58 to 61)

(ii) No (Please skip questions 58 to 61, go directly to question 62)

58. How many hours do you work overtime during the weekdays?

\_\_\_\_\_ hours.

59. How many hours do you work overtime during the weekend? \_\_\_\_\_ hours.

60. What is your payment per hour for working overtime during the weekdays?

Tshs./Kshs. \_\_\_\_\_

61. What is your payment per hour for working overtime during the weekends?

Tshs./Kshs. \_\_\_\_\_

62 (a). How much money do you really spend on buying books?

\_\_\_\_\_ Tshs./Kshs.

62(b) Explain the reason for your answer to question 62 (a):

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63. How much money do you spend on paying for the following basic needs

(Indicate the percentage):

(i) Food: \_\_\_\_\_ Tshs/Kshs.

(ii) Water: \_\_\_\_\_ Tshs/Kshs.

(iii) Electricity (Utilities): \_\_\_\_\_ Tshs/Kshs.

(iv) Accommodation/Shelter: \_\_\_\_\_ Tshs/Kshs.

(v) Clothes: \_\_\_\_\_ Tshs/Kshs.

(vi) Books/Periodicals/Photocopying/Internet: \_\_\_\_\_  
Tshs/Kshs.

(vii) Tuition (this question is for students only):

\_\_\_\_\_ Tshs./Kshs.

64. How do you feel about your scholarship (your allowances)/salary i.e. is your scholarship/salary enough to meet your basic needs? Explain:

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**Questions 65 and 68 are for University Staff Members only:**

65. What do you feel about the wage you are earning?

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66. How do you compare what you earn now and what you used to earn in the past?

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67 (a). Do you have other sources of income in addition to your salary?

(i) Yes

(ii) No

67 (b) If your answer to question 67 (a) is "Yes" mention the sources below:

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68. How much money do you really need to live comfortably?

\_\_\_\_\_ Tshs./Kshs.

69. Any other comments?: (This question is for all Library Users):

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**THANK YOU VERY MUCH!**

### **APPENDIX 1.7: LIBRARY STAFF SURVEY INSTRUCTIONS**

This survey is part of a study being conducted for a dissertation which will be presented at the University of Dar es Salaam, Tanzania, in fulfilment of the requirements for the Degree of Doctor of Philosophy. The study is concerned with Examining the Efficiency and Effectiveness of the Circulation Control Systems that Academic libraries in East Africa Use: Case Studies from Tanzania and Kenya.

Please express your honest opinion about the subject. You should feel free to answer each question exactly as you see it. Your views are valuable and of significance to the survey being conducted.

This survey is also a benchmark for progress. The survey results will be used by the university libraries in East Africa in improving library services to library users. Also, the university administration will use the results in determining areas in the libraries which need improvement.

All responses will be held in the strict confidence. This is a confidential survey.

Questions 1 to 20 are for Acquisitions Librarians. Questions 21 to 76 are for Reader Services Librarians.

Thank you very much for helping me in this important project. Your cooperation and assistance in answering the survey questions is highly appreciated.

---

Ms. Chausiku M. Kapaya  
Assistant Librarian, Reader Services  
Department  
Main Library, University of Dar es Salaam  
Dar es Salaam, Tanzania.

**APPENDIX 1.8: LIBRARY STAFF SURVEY**

Questionnaire No.: \_\_\_\_\_

**Survey Instructions:** Please use a ball-point pen to complete this survey. Fill in the blanks or circle your answer:

**1.Name of Academic****Library:** \_\_\_\_\_**2.Department:** \_\_\_\_\_**3.Country:** \_\_\_\_\_**4.City/Town:** \_\_\_\_\_**Questions on Collection Management:**

5. What is the role of your University Library in providing materials to students and staff in this University?.

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6. How many volumes does your library have? Indicate the group below that pertains to your library:

(i) 500,000

(ii) 250,000

(iii) 100,000

(iv) 50,000

(v) Below 50,000



7. What is the ratio of holdings to the total user population?

\_\_\_\_\_

Example: 1: 100 i.e. one book for 100 users.

8. What is your total annual budget for the the purchase of books?

\_\_\_\_\_Tshs OR \_\_\_\_\_Kshs.

9. In your opinion is this budget sufficient to meet your needs?

(i) Yes

(ii) No

10. Does your university library receive grants or any extra financial assistance for acquiring library materials?

(i) Yes

(ii) No

11. Please mention your major sources of funding:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

12. Do you have most of your stocks on open access where readers could browse and borrow?

(i).Yes (If so, please answer question #13)

(ii).No (If not, skip question #13. Go directly to question #14)

13. Which collections in your library are on Open Access? (Please specify): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

14. Does your library have a high turnover of stock?

- (i) Yes
- (ii) No

15. How many registered readers are entitled to borrowing books from the library?

- (i) Below 30,000 readers
- (ii) About 30,000 readers
- (iii) More than 30,000 readers

16. Who is responsible for shelving books in your library?

- (i) Stack Assistants
- (ii) Library Assistants
- (iii) Senior Library Staff
- (iv) Both (i) and (ii)
- (v) Other (please specify): \_\_\_\_\_

17. How many times are your circulated books shelved a day?

\_\_\_\_\_

18. Indicate the time of shelving for each section which is applicable to your library:

- (i) Morning Session: Time: \_\_\_\_\_ a.m. to \_\_\_\_\_ a.m.
- (ii) Afternoon Session: Time: \_\_\_\_\_ p.m. to \_\_\_\_\_ p.m.
- (iii) Evening Session Time: \_\_\_\_\_ p.m. to \_\_\_\_\_ p.m.
- (iv) Other: (Please specify): Time: \_\_\_\_\_ to \_\_\_\_\_ (Indicate whether it is a.m. or p.m.)

19. How often do you withdraw records of lost books from the catalogue?

- (i) Daily
- (ii) Weekly
- (iii) Monthly

(iv) Other (please specify): \_\_\_\_\_

(v) Never

20. Is it easy for your library to get a new replacement for lost books?

(i) Yes

(ii) No

21. Indicate the percentage of the books labelled with barcodes in your collection: \_\_\_\_\_

22. How many of your books have magnetic strips?

(i) All of Them

(ii) Some of Them

(iii) Just a Few

(iv) None of These

23 (a). How do you rate the quality of books from your library?

(i) Very Good

(ii) Good

(iii) Adequate

(iv) Inadequate

(v) Poor

(vi) Very Poor

23 (b). Additional Comments:

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24 (a). How often do you do stock taking in your library?

(i) Once a Year

(ii) Once Every Two Years

(iii) Once Every Three Years

(iv) Not at All

(v) Other (please specify): \_\_\_\_\_

24 (b) Give reasons for your answer to question 24 (a):

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**Questions on Reader Services, Circulation Personnel & Circulation  
Systems, and Library Rules and Regulations:**

**Circulation Personnel**

25 (a). How many library staff work in the Circulation Department? \_\_\_\_\_

25 (b) Indicate the number of staff in each of the following categories:

| <u>Category of Staff</u>             | <u>Number of Staff</u> |
|--------------------------------------|------------------------|
| (i) Professional Librarians          | _____                  |
| (ii) Principal Library Assistants    | _____                  |
| (iii) Senior Library Assistants      | _____                  |
| (iv) Library Assistants              | _____                  |
| (v) Other (please specify):<br>_____ | _____                  |

26. Are the library staff available in the Circulation Department enough to perform the circulation functions?

- (i) Yes (Please skip question #27. Go directly to question #28)
- (ii) No (Please answer question #27)

27. Indicate the number of staff members needed to be added to the department in each of the following professional positions:

| <u>Category of Staff</u>          | <u>Number of Staff</u> |
|-----------------------------------|------------------------|
| (i) Professional Librarians       | _____                  |
| (ii) Principal Library Assistants | _____                  |
| (iii) Senior Library Assistants   | _____                  |

- (iv) Library Assistants \_\_\_\_\_
- (v) Other \_\_\_\_\_ (please specify) \_\_\_\_\_

28. Which of the following categories of staff have a basic training in “courses on library and information sciences?” Indicate the numbers of people trained in each category with professional qualifications:

| <u>Category of Staff</u>          | <u>Number of Staff</u> | <u>Higher Qualifications</u> |
|-----------------------------------|------------------------|------------------------------|
| (i) Professional Librarians       | _____                  | _____                        |
| (ii) Principal Library Assistants | _____                  | _____                        |
| (iii) Senior Library Assistants   | _____                  | _____                        |
| (iv) Library Assistants           | _____                  | _____                        |
| (v) Other: _____                  | _____                  | _____                        |

### Questions On Library Rules and Regulations

29. How do you inform patrons on the loan policy of your library?

- (i) Through the library guide, which includes all library rules and re including loans
- (ii) Through brochures which list a loan policy
- (iii) Through a chart posted that lists privileges by type of patron
- (iv) All of the above i.e. (i), (ii), and (iii)
- (v) Other (please specify): \_\_\_\_\_

30. How do you register students in your Library?

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31 (a). Is there a policy which prevents students with overdue books and fines from checking out more books from the library?

- (i) Yes [Please answer question 31(b) ]
- (ii) No [Please skip question 31 (b), go directly to question 31(c)]

31 (b). Mention this policy:

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31 (c). If your answer to question 31 (a) is "No" give reasons below:

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### Library Hours

32..How long is your library open during work days, Monday through Friday?

- (i) 8:00 a.m. - 10:30 p.m.
- (ii) 8:00 a.m. - 11:00 p.m.
- (iii) 7:00 a.m. - 12:00 p.m.
- (iv) Other (please specify): \_\_\_\_\_

33. How long is your library open on Saturdays?

- (i) 8:00 a.m. - 10:00 p.m.
- (ii) 8:00 a.m. - 11:00 p.m.
- (iii) 7:00 a.m. - 6:00 p.m.
- (iv) Other (please specify): \_\_\_\_\_

34. How long is your library open on Sundays?

- (i) 3:00 p.m. - 11:00 p.m.
- (ii) 2:00 p.m. - 10:30 p.m.
- (iii) 8:00 a.m. - 10:30 p.m.
- (iv) Other (please specify): \_\_\_\_\_

35.How long is your library open during public holidays?

- (i) 8:00 a.m. - 10:30 p.m.
- (ii) 10:00 a.m. - 11:00 p.m.
- (iii) 8:00 a.m. - 6:30 p.m.
- (iv) Other (Please specify): \_\_\_\_\_

**Questions on Circulation Systems**

36. What type of circulation system do you use in your library?

- (i) Manual circulation system (Please answer question #37 and skip #38,39)
- (ii) Mechanized circulation system (Please skip questions #37 & 39,. Go directly to question # 38)
- (iii) Computerized circulation system (Please skip questions #37 and #38. Go directly to question # 39)

37. Check the name of the manual circulation system you are using

- (i) Simple Browne System
- (ii) Modified Browne System
- (iii) Newark System
- (iv) Other (please specify): \_\_\_\_\_

38. Check the name of the mechanized circulation system you are using

- (i) Punched Card Charging System
- (ii) Photographic Charging System
- (iii) Audio Charge System (Dictaphone charging)
- (iv) IBM Circulation System
- (v) Other (please specify)

39. Check the name of the computerized circulation system you are using

- (i) Prototype Circulation System
- (ii) Dynix Circulation System
- (iii) Microcomputer Circulation System
- (iv) Minicomputer Circulation System
- (v) Other (please specify): \_\_\_\_\_

40 (a) How effective is your circulation system in minimizing book losses and providing user/staff satisfaction?

- (i) Very effective
- (ii) Moderately effective

- (iii) Effective
- (iv) Not very effective
- (v) Not effective
- (vi) Don't know

40. (b) Give reasons for your answer to question 40 (a)

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40 (c) Are the book losses in your library becoming less or more? Please compare and contrast the rate of book loss in the following years by filling in the following blanks:

- ((i) 1970s \_\_\_\_\_
- (ii) 1980s \_\_\_\_\_
- (iii) 1990s \_\_\_\_\_

41 (a). Is there any relationship between the type of circulation system used and book losses in your library?

- (i) Yes
- (ii) No
- (iii) Don't know

41 (b) If your answer to question 41 (a) is "Yes" what are these differences? (Please explain):

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42. Which of the following reasons contribute a great deal to the loss of books in your library?



- (i) The poor quality of services rendered by circulation staff
- (ii) The book poverty (unavailability of required books)
- (iii) The ineffectiveness of the circulation control system
- (iv) The lack of attention the institution gives to loss of books
- (v) Other (please specify): \_\_\_\_\_

\_\_\_\_\_

43. What are other contributory causes to the trends of book losses?

\_\_\_\_\_

\_\_\_\_\_

44. Which system do you use in your library to collect stolen books from delinquent borrowers ( borrowers who take out library books without authorization)?

- (i) An online system
- (ii) A video camera
- (iii) An electronic security system
- (iv) All of the above
- (v) Other (please specify): \_\_\_\_\_

#### Statistics

45. What is the population of the clientele (user group ) in your library? Indicate the number in each category of users in blanks.

- (i) Students: \_\_\_\_\_
- (ii) Academic Staff: \_\_\_\_\_
- (iii) Administrative Staff: \_\_\_\_\_
- (iv) External Borrowers (General Public): \_\_\_\_\_

46. What is the loan period for the following:

- (i) Faculty \_\_\_\_\_
- (ii) Students: regular, full-time, undergraduate \_\_\_\_\_
- (iii) Students: regular, full-time, graduate \_\_\_\_\_
- (iv) External borrowers \_\_\_\_\_

47 (a) Do you have a Reserve Collection in your Library?

(i) Yes [Please answer questions 47 (b) & (c)]

(ii) No [Please skip questions 47 (b) & (c) go directly to question 48]

47 (b). Do you keep statistics for the usage of the Reserve Collection?

(i) Yes (Please answer question 47 (c))

(ii) No (Please skip question 47 (c), go directly to question 48)

47(c). Indicate the statistics for the total Reserve sub-section of the Circulation Department (the short term loan section) per academic year for the past three years:

| <u>Academic Year</u> | <u>Total # of Borrowers</u> | <u>Total # of Books</u> |
|----------------------|-----------------------------|-------------------------|
| <u>Circulated</u>    |                             |                         |

(i) 1998/99

\_\_\_\_\_

\_\_\_\_\_

(ii) 1997/98

\_\_\_\_\_

\_\_\_\_\_

(iii) 1996/97

\_\_\_\_\_

\_\_\_\_\_

48. Do you keep statistics of borrowers and books circulated from the General Collection?

(i) Yes (Please answer question 49)

(ii) No (Please skip question 49, go directly to question 50)

49. Indicate the statistics of the borrowers and books circulated from the General Collection per academic year for the past three years:

| <u>Academic Year</u> | <u>Total # of Borrowers</u> | <u>Total # of Books</u> |
|----------------------|-----------------------------|-------------------------|
| <u>Circulated</u>    |                             |                         |

(i) 1998/99

\_\_\_\_\_

\_\_\_\_\_

(ii) 1997/98

\_\_\_\_\_

\_\_\_\_\_

(iii) 1996/97

\_\_\_\_\_

\_\_\_\_\_

**Circulation Services**

50. Who does the charging of books in your library?

(i) Library Staff Only

(ii) Library Borrowers Only

(iii) Both Borrowers and Library Staff

(iv) Other (please specify): \_\_\_\_\_

51. How do you identify the borrowers in the library before issuing them an item?

(i) By checking their identity (ID) cards

(ii) Other (please specify): \_\_\_\_\_

\_\_\_\_\_

52. How long does it take to charge out a book from your library?

(i) 30 seconds to 1 minute

(ii) 2 - 3 minutes

(iii) 3 - 4 minutes

(iv) More than 5 minutes

(v) Other (please specify): \_\_\_\_\_

53. How long does it take to discharge a book returned to the library?

(i) 1 - 2 minutes

(ii) 2 - 3 minutes

(iii) 4 - 5 minutes

(iv) 10 - 15 minutes

(v) Other (please specify): \_\_\_\_\_

54.(a). The system of checking in and out books at the main university library of my institution:

(i) Seems to serve library users well

- (ii) Does not serve library users well
- (iii) Is good, but needs change (please explain below)
- (iv) No opinion

54(b). Comment on the system as a whole:

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55. Who performs the routine duties at the Circulation Desk?

- (i) Junior Library Assistants
- (ii) Senior Library Assistants
- (iii) Both (i) and (ii)
- (iv) Reader Services (Circulation) Librarians
- (v) Other (please specify): \_\_\_\_\_

56. Is there a tendency for your library to have long queues at the circulation desk during the peak periods?

- (i) Yes
- (ii) No

57. Is there a tendency in your library to have long queues of patrons at the circulation desk during the normal hours?

- (i) Yes
- (ii) No

58 (a). Do you have photocopying services for your patrons / library users in your Library?

- (i) Yes (Please answer question 58 (b))
- (ii) No (Please skip question 58 (b). Go directly to question 59)

58 (b). How much do you charge to photocopy a page of the book for the following library users?

(i) Students: \_\_\_\_\_ Tshs. / Kshs.

(ii) Faculty: \_\_\_\_\_ Tshs. / Kshs

(iii) Administrative staff: \_\_\_\_\_ Tshs. / Kshs.

(iv) External borrowers: \_\_\_\_\_ Tshs. / Kshs.

59. How would you evaluate the personal service you provide to your customers?

(i) Very Good

(ii) Good

(iii) Very Poor

(iv) Poor

60. How is the University Administration involved in supporting or hindering the circulation services of your library?

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### Questions on Overdue

61 (a). Do you keep statistics of book loss for each department in your library?

(i) Yes [Please answer question 61 (b)]

(ii) No [Please skip question 61 (b), go directly to question 61 (c)]

61 (b). Which Departments in this institution has the highest rate of book loss? List the five Departments that have the highest book loss. Indicate the percentage for the loss in each department for the past three academic years:

| Academic Year | Department | Percentage |
|---------------|------------|------------|
| (i) 1998/99   | 1. _____   | _____      |
|               | 2. _____   | _____      |
|               | 3. _____   | _____      |
|               | 4. _____   | _____      |
|               | 5. _____   | _____      |
| (ii) 1997/98  | 1. _____   | _____      |
|               | 2. _____   | _____      |
|               | 3. _____   | _____      |
|               | 4. _____   | _____      |
|               | 5. _____   | _____      |
| (iii) 1996/97 | 1. _____   | _____      |
|               | 2. _____   | _____      |
|               | 3. _____   | _____      |
|               | 4. _____   | _____      |
|               | 5. _____   | _____      |

61 (c) If your answer to question 61 (a) is "No" give reasons why you don't keep statistics:

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62. How often do you send overdue notices to patrons?

- (i) Every day
- (ii) Every week
- (iii) Every two weeks

- (iv) Every month
- (v) Other (please specify): \_\_\_\_\_

63. How many overdue notices do you send to patrons for long/ outstanding overdue books?

- (i) Three notices
- (ii) More than three notices
- (iii) Other (please specify): \_\_\_\_\_

64. If students with long outstanding overdue books do not respond to the final overdue notice what do you usually do?

- (i) We suspend all the students' privileges to borrow books from the library
- (ii) We send the names of the students to the relevant authorities to have their money deducted from their allowances
- (iii) Both (i) and (ii)
- (iv) Other (please specify): \_\_\_\_\_

65(a). Do you have a system of charging staff members who do not return outstanding overdue books to the library?

- (i) Yes (Please answer questions 65 (b), (c) & (d))
- (ii) No (Please skip question 65 (b), (c), & (d) go directly to question 66)

65 (b). How often do you send the names of staff members with overdue books to the Bursar's Office to have their salaries garnished ( deducted)?

- (i) After every third notice
- (ii) Once per semester
- (iii) Once in an academic year
- (iv) Never
- (v) Other (please specify): \_\_\_\_\_

65(c) How effective has the system of sending names of staff members to the Bursar's Office for deduction of their salaries been?

- (i) Very effective
- (ii) Moderately effective
- (iii) Effective

(iv) Not effective

65 (d). Give reasons for your answer to question 65 (c):

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66. What is your overdue fine per day for an overdue book withdrawn from the General Collection?

- (i) 50.00 Tshs/Kshs. a day
- (ii) 100.00 Tshs/Kshs. a day
- (iii) 500.00 Tshs/Kshs. a day
- (iv) Other (please specify): \_\_\_\_\_ Tshs/Kshs.

**Questions 67 (a) and (b) are for Libraries with Reserve Collections:**

67 (a). Do you charge overdue fines for the Reserve Collection materials?

- (i) Yes [please answer question 67 (b)]
- (ii) No [ Please skip question 67 (b), go directly to question 67 (c)]

67 (b). What is the overdue fine, per item, for Reserve items?

- (i) 100.00 Tshs/Kshs per hour
- (ii) 200.00 Tshs/Kshs per hour
- (iii) Other (please specify): \_\_\_\_\_ Tshs/Kshs per hour

67 (c) If your answer to question 67 (a) is "No" give reasons:

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68. How do you calculate overdue fines?

- (i) By using a scientific calculator
- (ii) Fines are computed automatically by the computer
- (iii) Manually, adding the fines using simple arithmetic



(iv) Other (please specify): \_\_\_\_\_

69 (a). How do you rate the user's behavior in your library?

- (i) Very Good
- (ii) Good
- (iii) Neutral
- (iv) Bad
- (v) Very Bad

69 (b) Add more comments on the Users' behavior in your Library:

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70 (a). Do you have a Senate Library Committee in your Library?

- (i) Yes [Please answer questions 70 (b) & (c) ]
- (ii) No [Please skip questions 70 (b) & (c)]; go directly to question 70 (d)]

70 (b). If your answer to question 70 (a) is "Yes" who are the members in the Library Committee? (Please list the members by numbering them e.g. (i), (ii) etc.) :

- (i) \_\_\_\_\_
- (ii) \_\_\_\_\_
- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_
- (v) \_\_\_\_\_
- (vi) \_\_\_\_\_

70 (c) If your answer to question 70 (a) is "Yes" how supportive has the committee been to the Library in solving the problem of outstanding overdue books and book loss?

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70 (d) If your answer to question 70 (a) is "No" give reasons:

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71. Beside each of the following statements, please indicate whether you Strongly Agree, Agree, Disagree, Strongly Disagree, or are Undecided by circling the answer of your choice:

|   | Strongly Agree | Agree | Disagree | Strongly Disagree | Undecided |
|---|----------------|-------|----------|-------------------|-----------|
| (a) Paying fines is an effective way of sanctioning a delinquent borrower.                              | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (b) Suspending borrowing privileges of delinquent borrowers gives the best results.                     | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (c) Overdue can be decreased by increasing the library budget to purchase books.                        | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (d) Overdue can be reduced by improving the circulation control system.                                 | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (e) Overdue can be reduced by extending the loan period to a semester.                                  | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (f) Problems of overdue can be solved by making popular books available to the maximum number of users. | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (g) Libraries with automated circulation systems have less overdue.                                     | (v)            | (iv)  | (iii)    | (ii)              | (i)       |
| (h) Loan policies between students and faculty reflect unfairness.                                      | (v)            | (iv)  | (iii)    | (ii)              | (i)       |

Source: Field Data, 2000

### Security Measures in the Library

72. Is your circulation system linked to an electronic security system to prevent theft of Library books?

- (i) Yes (Please skip question #73. Go directly to questions # 74, 75 & 76)
- (ii) No (Please answer only questions #73 and 76 in this section.)

73. How do you prevent loss of library books?

- (i) Through Library Assistants manning the check points
- (ii) Through Security Guards
- (iii) Through Police Officers

(iv) Other (please specify): \_\_\_\_\_

\_\_\_\_\_

74. Do you desensitize books being taken out of the library?

(i) Yes

(ii) No

75. Do you sensitize books being brought back to the library?

(i) Yes

(ii) No

76. Comment on the security of library books in your library:

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**THANK YOU VERY MUCH!**

### **APPENDIX 1.9: LIBRARY DIRECTORS' INSTRUCTIONS**

This interview is part of a study being conducted for a dissertation which will be presented at the University of Dar es Salaam, Tanzania, in fulfilment of the requirements for the Degree of Doctor of Philosophy. The study is concerned with Examining the Efficiency and Effectiveness of the Circulation Control Systems that Academic libraries in East Africa Use: Case Studies from Tanzania and Kenya.

Please express your honest opinion about the subject. You should feel free to respond to each question exactly as you understand it. Your views are valuable and of significance to the interview being conducted.

This interview is also a benchmark for progress. The interview results will be used by the University Libraries in East Africa in improving library services to Library Users. Also the University Administration will use the results in determining areas in the libraries which need improvement.

All responses will be held in the strict confidence. This is a confidential interview.

Thank you very much for helping me in this important project. Your cooperation and assistance in answering the interview questions is highly appreciated.

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Ms. Chausiku M. Kapaya  
Assistant Librarian, Reader Services  
Department  
Main Library, University of Dar es Salaam  
Dar es Salaam, Tanzania.

# APPENDIX 1.10: DIRECTOR' S INTERVIEW SCHEDULE

INTERVIEW SCHEDULE NO.: \_\_\_\_\_

## INTERVIEW WITH THE DIRECTORS OF UNIVERSITY LIBRARY SERVICES/ (UNIVERSITY LIBRARIANS)

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

1. Name of institution: \_\_\_\_\_

2. City/Town: \_\_\_\_\_

3. Name of the Library: \_\_\_\_\_

4. Place of Interview: \_\_\_\_\_

5. What is your area of specialization? Please include Library and Information Science and any other subject area (if any):

(i) Library & Information Science: \_\_\_\_\_

(ii) Any other subject area: \_\_\_\_\_

6. What is your highest professional qualification? \_\_\_\_\_

7. For how long have you been working in this Library? \_\_\_\_\_

8. For how long have you been in your present position? \_\_\_\_\_

9(a). When was your Library established? \_\_\_\_\_

(b) By whom was your library established? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

10. Please give me a brief history of your Library ( You can explain how it started, where it started (location of the building) and the names it was given at different times, the size of its collections from the beginning to the present day, etc.

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11. What is the organizational structure of your Library?

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12 (a). How many Departments does your Library have?

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12 (b) Name the Departments:

- (i) \_\_\_\_\_
- ii) \_\_\_\_\_
- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_
- (v) \_\_\_\_\_

12 (c).How are the above mentioned Departments of your Library related in terms of data flow and information flow?

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13. What is the total number of staff in your Library?\_\_\_\_\_

14. How many staff are in each of the following categories?:

(i). Professional Librarians\_\_\_\_\_

(ii). Non-professional Library Staff \_\_\_\_\_

15.How many Library Staff have computer knowledge?\_\_\_\_\_

16. What type of Circulation System do you use in your Library?

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17. Explain how effective and efficient the Circulation System of your library has been in promoting library services to library users or vice versa:

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18 (a). Is there any need of improving your Circulation System?

(i) Yes [Please answer questions 18(b) & 18 (c), ]

(ii) No [Please skip questions 18 (b) & 18 (c)]

18(b). Which areas of your Circulation System do you think need improvement?

Please explain:

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18 (c) Could you suggest ways of improving the weaknesses of your Circulation System?

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19 How do you obtain books for your Library ? In other words how do you build your Library Collections?

20 (a). How much money did you get from the Central University Administration to purchase books for the Library in the following academic years?

(i) 1998/99 \_\_\_\_\_ Tshs/Kshs/Pound Sterling,/US. \$, etc.

(ii) 1997/98 \_\_\_\_\_ Tshs/Kshs/Pound Sterling/ US \$, etc.

(iii) 1996/97 \_\_\_\_\_ Tshs/Kshs/Pound Sterling/ US \$, etc.



20 (b). Is the budget allocation by the University Administration adequate for the purchase of books for your Library?

(i) Yes

(ii) No

20 (c) Please give explanation for your answer to question 20 (b)

21. Could you explain to me the state of the Bookshops and the Publishing Industry in your country and how they contribute in building your Library Collections?

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22. Explain how the University Administration contribute towards the development/advancement and/or hindrance of University Library Services:

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23 (a). Is your Library Administration centralized?

(i) Yes [Please answer question 23 (b)]

(ii) No [Please skip question 23 (b), go directly to question 23 (c)]

23 (b) If your answer to question 23 (a) is "Yes" Explain how:

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23 (c) If your answer to question 23 (a) is "No" explain why and also, how it operates:

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24(a) Does your Library have a Union Catalogue which indexes all materials in the system?

(i) Yes [Please answer questions 24(b) and 24 (c), and skip question 24 (d)]

(ii) No [Please skip questions 24(b) and 24(c), go directly to question 24 (d)]

24 (b) If your answer to question 24 (a) is "Yes" mention the type/types of catalogues you have:

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24 (c) If your answer to question 24 (a) is "Yes" what are the strengths and weaknesses of your Union Catalogue?

(i) Strengths: 

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(ii) Weaknesses: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

24 (d). If your answer to question 24 is "No" give reasons and also, explain how you keep track of your library materials:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

25. What problems do you face in performing the following activities?:

(i) Maintaining circulated book collections?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(ii) Running circulation services?

\_\_\_\_\_

(iii) Keeping and maintaining circulation statistics annually?

\_\_\_\_\_

26(a). Is book loss a common problem in your Library?

(i) Yes [Please answer question 26 (b), and skip question 26 (c)]

(ii) No [Please skip question 26 (b) , go directly to question 26 (c)]

26 (b) If your answer to question 26 (a) is "Yes" answer the following questions:

(i) What factors do you think could have contributed to this loss?

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(ii) Finally, what measures has your Library taken to recover the lost books?

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26 (c) If your answer to question 26 (a) is "No" what measures have you taken to prevent this loss?

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27 (a) How do you rate your Library Users' behaviour?

(i) Very good

(ii) Good

(iii) Very poor

(iv) Poor

(v) Other (Please specify): \_\_\_\_\_

27 (b) How supportive are your Library users in maintaining and preserving your Library Collections? Please give details below:

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28 (a) Is your Library computerized?

(i) Yes [Please answer questions 28 (b), (c) & skip questions 28 (d), (e), (f) & (g)]

(ii) No [Please skip questions 28 (b), (c); go directly to questions 28 (d), (e),(f) & (g)]

28(b) If your answer to question 28(a) is "Yes" what stage have you reached in computerizing your Library?

(i) Fully Computerized

(ii) Partially Computerized

28 (c) Give explanation to your answer to question 28 (b)

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28 (d). If your answer to question 28 (a) is "No" how do you keep track of your books?

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28 (e). Also, if your answer to question 28 (a) is "No" is your Library Administration interested in computerizing the Library functions?

(i) Yes

(ii) No

28 (f). Give reasons for your answer to question 28 (e):

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28 (g). Suppose your Library is ready to computerize which areas would you mostly need financial assistance?

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29(a). Is your Library linked to an Electronic Security System?

(i) Yes [Please skip question 29 (b)]

(ii) No [Please answer question 29 (b)]

29(b). If your answer to question 29 (a) is "No" how do you ensure the security of materials in your Library?

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30 (a) Do you have a problem of power supply in your Library?

(i) Yes

(ii) No

30 (b) If your answer to question 30 (a) is "Yes" how do you cope with the situation?

Explain your short term and long term plans to solve the problem of power supply:

(i) Short term plans:

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(ii) Long-term plans:

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31 (a). What is the state of your Circulated Collection?

(i) Poor

(ii) Very poor

(iii) Rich

(iv) Very rich

(v) Other (Please specify): \_\_\_\_\_

31 (b). What are the strengths and weaknesses of your Circulated Collections?

(i) Strengths:

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(ii) Weaknesses:

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32. Is there anything else you want to say about circulation functions or the circulation system of your Library? Please feel free to express yourself:

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**THANK YOU VERY MUCH!**