

**APPLICATION OF INFORMATION AND  
COMMUNICATION TECHNOLOGIES IN  
COLLECTION DEVELOPMENT IN SELECTED  
PRIVATE UNIVERSITY LIBRARIES IN KENYA**

**By**

**SYOMBUA KASALU  
BSc. (Information Sciences)**

A thesis submitted in partial fulfillment of the requirements for the  
degree of Master of Philosophy in Information Sciences  
(Library and Information Studies) of Moi University

May, 2010

## DECLARATION

I declare that this thesis is my original work and has not been submitted for a degree in any other university. No part of this thesis may be reproduced without the prior permission of the author and/or Moi University

**SYOMBUA KASALU**  
(IS/MPHIL/043/07)

SIGN \_\_\_\_\_ DATE \_\_\_\_\_

This thesis has been submitted for examination with our approval as the University

Supervisors

**PROF. J.B. OJIAMBO** SIGN \_\_\_\_\_ DATE \_\_\_\_\_  
(DEPARTMENT OF LIBRARY, RECORDS MANAGEMENT AND INFORMATION  
STUDIES, MOI UNIVERSITY)

**DR. A. CHEGE** SIGN \_\_\_\_\_ DATE \_\_\_\_\_  
(DEPARTMENT OF LIBRARY, RECORDS MANAGEMENT AND INFORMATION  
STUDIES, MOI UNIVERSITY)

**DEDICATION**

To my family and colleagues at St. Paul's University library whose support was  
immeasurable.

## **ACKNOWLEDGEMENTS**

God has been gracious to me through many people who have helped me until completion of this research; I give Him all the glory and honor. Special thanks go to my two supervisors for their valuable support, guidance and in making sure that I grasp the entire process of research.

I am also very grateful to the management of St. Paul's University for the financial support without which I wouldn't have made it. Not forgetting the library staff and the University Librarian, thanks for pushing me hard whenever I felt like giving up and wanting to know how I was doing and when I was going to finish.

Special thanks are to my family for they bore it all; my absence and hot temper when things were not right. To everyone I say thank you and God bless!

## ABSTRACT

Collection development constitutes one of the most important functions of university libraries. It is designed purposely to provide the library with an information resource that meets the appropriate needs of its constituents. Collection development comprises planning, decision-making, budgeting, acquiring the materials and evaluating them. Development of Information and Communication Technology (ICT) has revolutionized information and changed user needs and their formation seeking behaviours. The changes occurring due to development of ICTs, are forcing university libraries to apply ICTs in their collection development practices in order to effectively and efficiently meet the changing needs of their clientele. The aim of this study was to investigate ways in which collection development practices in private university libraries could be enhanced by use of information and communication technology with a view of suggesting a framework for effective application of ICTs in collection development. The objectives of the study were to: examine collection development practices of private university libraries in Kenya; establish the current concerns and constraints in collection development practices; establish the extent to which ICTs are applied in collection development activities; explore the levels of development of electronic information resources in private university libraries; and to suggest ways in which ICTs could be used to enhance collection development practices in private university libraries. The study was informed by Ludwig von Bertalanffy's systems theory of organizations in which a library and its interrelated activities are viewed as an open system that exists in a dynamic environment and must be adaptable and be able to change.

Cross-sectional survey design was used to carry out the study and the respondents, drawn from three private universities, comprised of librarians, faculty deans, and post-graduate students. Non-probability sampling method was used to select respondents from the three private universities with the researcher utilizing purposive and convenience sampling techniques to select 72 respondents. Data for the study was collected through face-to-face interviews and administration of questionnaires. The study found out that although ICTs were commonly available in the three selected private university libraries, their impact on collection development processes had not been fully felt. Several challenges and constraints that have impeded application of ICTs in collection development were mentioned such as budgetary constraints, slow internet speed, and negative attitude and lack of cooperation by the teaching staff. The study recommends that there is need for private university libraries to apply and fully utilize ICTs in various activities of collection development in order to enhance the collection development process and efficiently meet the changing information needs of the users.

## TABLE OF CONTENTS

	<b>Page</b>
<b>DECLARATION.....</b>	<b>i</b>
<b>DEDICATION.....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iii</b>
<b>ABSTRACT.....</b>	<b>iv</b>
<b>TABLE OF CONTENT.....</b>	<b>v</b>
<b>LIST OF TABLES AND CHARTS.....</b>	<b>ix</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>x</b>
<b>CHAPTER ONE: INTRODUCTION</b>	
1.1 Introduction-----	1
1.2 Background information-----	3
1.3 Statement of the problem-----	20
1.4 Aim of the study-----	22
1.5 Objectives of the study-----	22
1.6 Research questions-----	23
1.7 Assumptions-----	24
1.8 Significance of the study-----	24
1.9 Scope, Delimitations and Limitations of the study-----	25
1.10 Justification of the study-----	26
1.11 Definition of operational terms-----	27
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
2.1 Introduction-----	29
2.2 Theoretical framework-----	29
2.2.1 Systems theory of organizations-----	30
2.3 Traditional collection development practices-----	31
2.3.1 Planning process-----	33
2.3.1.1 Determining the needs of users-----	33
2.3.1.2 Collection development policies-----	34
2.3.1.3 Collection development budget-----	38

2.3.2 Selection process-----	39
2.3.3 Acquisition process-----	42
2.3.4 Evaluation process-----	44
2.3.5 Weeding process-----	46
2.4 Current concerns and constraints-----	48
2.4.1 Economic constraints-----	48
2.4.2 New technology-----	48
2.4.3 Need for accountability and performance measurement-----	49
2.4.4 Expectations and needs of users-----	49
2.5 Information and Communication Technology in University Libraries-----	50
2.6 Chapter summary-----	55

### **CHAPTER THREE: RESEARCH METHODOLOGY**

3.1 Introduction-----	56
3.2 Research design-----	56
3.3 Study population-----	58
3.4 Sampling method-----	58
3.5 Sampling technique-----	59
3.6 Sampling procedure-----	59
3.7 Study sample-----	60
3.8 Data collection method-----	62
3.9 Data collection techniques-----	62
3.9.1 Interview technique-----	63
3.9.2 Self administered questionnaire-----	63
3.10 Data collection instruments-----	64
3.11 Data collection procedure-----	64
3.12 Pre-test of data collection instruments-----	65
3.13 Data analysis, presentation and interpretation-----	67
3.14 Ethical considerations-----	68
3.15 Chapter summary-----	68

## **CHAPTER FOUR DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

4.1 Introduction-----	70
4.2 Response rate-----	70
4.3 Respondent characteristics-----	71
4.4 Collection development in practices in private university libraries-----	72
4.4.1 User needs analysis-----	72
4.4.2 Collection development policy-----	74
4.4.2.1 Communication of the policy to the users-----	76
4.4.3 Collection development budget-----	77
4.4.4 Selection process-----	78
4.4.4.1 Selection tools used-----	79
4.4.4.2 Communication of the selections-----	81
4.4.5 Acquisition process-----	82
4.4.6 Evaluation process-----	83
4.4.7 Weeding process-----	85
4.5 Challenges & constraints faced by private university libraries-----	87
4.6 The extent of application of ICTs in collection development & challenges faced---	89
4.7 Development of electronic resources in private university libraries-----	93
4.8 Library patrons' satisfaction with the collection-----	96
4.9 Technology infrastructure to support collection development activities-----	97
4.10 How ICTs can be used to enhance collection development practices-----	97
4.11 Chapter summary-----	100

## **CHAPTER FIVE SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

5.1 Introduction-----	101
5.2 Summary of key findings-----	101
5.3 Conclusion-----	104
5.4 Recommendations-----	105



5.4.1 Use of ICTs in user needs analysis-----	105
5.4.2 Use of ICTs in planning, policy, and fiscal management-----	105
5.4.3 Use of ICTs in selection and acquisition of information materials-----	106
5.4.4 Use of ICTs in collection evaluation and weeding-----	107
5.4.5 Use of ICTs in electronic collection development-----	107
5.4.6 Use of ICTs in cooperative collection development-----	108
5.5 Suggestions for further research-----	109
<b>References-----</b>	<b>110</b>
<b>Interview Schedule for Library staff-----</b>	<b>115</b>
<b>Interview Schedule for Faculty Deans-----</b>	<b>121</b>
<b>Questionnaire for Post-graduate Students-----</b>	<b>123</b>
<b>Pretest Checklist for Interview Schedules and Questionnaire-----</b>	<b>125</b>

## LIST OF TABLES

	<b>Page</b>
Table 1: Summary of study samples-----	61
Table 2: Questionnaire response rate-----	70
Table 3: Interviews done-----	71
Table 4: Summary of respondents' characteristics-----	72
Table 5: Distribution of responses on if user analysis is done-----	73
Table 6: Distribution of responses on methods used in user analysis-----	74
Table 7: Distribution of responses on whether CDP is available-----	75
Table 8: Distribution of the responses on the frequency of updating the CDP-----	76
Table 9: Distribution of responses on whether CDP is communicated to the users-----	76
Table 10: Book budget allocations of the three university libraries -----	78
Table 11: Distribution of the responses on the selection process-----	79
Table 12: Distribution of responses on selection tools used-----	80
Table 13: Distribution of responses on methods used in communicating selections-----	82
Table 14: Distribution of responses on whether evaluation is done -----	84
Table 15: Distribution of responses on the evaluation methods used-----	85
Table 16: Distribution of responses on methods used in weeding-----	86
Table 17: Print vs. electronic collection in private university libraries-----	94

## LIST OF ABBREVIATIONS

CD-ROM	- Compact Disk Read-Only Memory
CDP	- Collection Development Policy
CHE	- Commission for Higher Education
DVD	- Digital Video Disk
EDI	- Electronic Data Interchange
ICT	- Information Communication Technology
INASP	- International Network for the Availability of Scientific Publications
IT	- Information Technology
KLISC	- Kenya Library and Information Service Consortium
OPAC	- Online Public Access Catalogue
PERI	- Programme for the Enhancement of Research Information
SPU	- St. Paul's University
SU	- Strathmore University
USIU	- United States International University

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Introduction

University libraries exist to support teaching, research and information needs of a university. They are charged with the responsibility to provide adequate information materials to satisfy the needs of faculty, researchers, administrators, and students of that particular university. Boakye (1994) says that provision of information materials is the most fundamental activity of all libraries because a highly sophisticated system of information storage and retrieval is of no use unless it affords access to the right documents. Similarly, a highly trained library staff becomes ineffective without necessary resources and a beautiful library becomes a white elephant without materials needed for the use by the target clientele.

Collection development is the process of identifying the information needs of the clientele that a library serves and acquiring materials that will meet those needs. According to Reitz (2007) collection development is the process of planning and acquiring a balanced collection of library materials over a period of years, based on an ongoing assessment of the information needs of the library's clientele, analysis of usage statistics, and demographic projections. Evans and Saponaro (2005) define collection development as: "the process of identifying the strengths and weaknesses of a library's materials collection in terms of patron needs and community resources, and attempting to correct existing weaknesses, if any". Collection development process ensures that the library meets the information needs of its service population in a timely and economical

manner, using information resources produced both inside and outside of the organization. Collection development is stock acquisition programme in a library not simply to cater for immediate needs, but to build a coherent and reliable collection over a number of years to meet the objectives of a service. The role of collection development in a university library is therefore to: provide materials that can meet the academic needs of the undergraduate studies; provide the materials that support the advanced research work of the lecturers and post-graduate students; provide peripheral and general reading materials that assist the library users to broaden their horizons; and co-operate and share resources with other academic libraries that have similar programmes. Evans and Saprano (2005) have given six major components of collection development as: needs assessment of the community that a library exists to serve (for example a university, college, school, and region); development of acquisition policies, selection process, acquisition, evaluation of the collection, and de-selection.

The academic library environment is in a state of transition in terms of resources. Many information resources that were once available in print only are now available in electronic formats such as CD-ROMs, online journals, electronic books, and electronic databases. This transition is apparently necessitated by emergence of modern Information and Communication Technology (ICT) and its unprecedented impact on provision of library services (Chisenga, 2006). ICT is defined as set of technological tools and resources used to communicate and to create, disseminate, store, and manage information (Blurton as cited by Chisenga, 2006). ICTs encompass a wide range of rapidly evolving technologies including telecommunications technologies, such as telephony, cable,

satellite, computer-mediated conferencing and video conferencing, as well as digital technologies, such as computers, information networks (internet, intranets and extranets) and software applications. (Chisenga, 2006). ICTs come about as a result of convergence of computer technologies, telecommunication technologies and other media communication technologies. In this study, ICTs were taken to be the digital technologies such as computers, information networks (Internet, Intranet, Extranet), and software applications (databases, application software, and communication software).

With ICTs such things as electronic acquisitions, electronic selection, electronic cataloguing, electronic circulation functions, digitized collections, and electronic information resources are all now practicable with a higher degree of user satisfaction (Ajayi, 2002). In fact the size of libraries or their collections may no longer be the benchmark but rather accessibility to the major thrust of the library automation and most universities libraries have begun to develop ICT strategies to deal with the need to respond to rapid changes in technology. Omoniwa (2001) argues that in the twenty-first century, the adoption of information and communication technology will be the hallmark of great libraries and for any library to derive maximum benefit in this information age, it has to be online.

## **1.2 Background Information**

Any academic library that aims to satisfy the information needs of academics and researchers must take great care with development of its collection. Bonn (1974) states that both the quantity and the quality of a library's collection depend almost entirely upon

the library's collection development process, including its acquisition policy, acquisition procedures, and most importantly, its selection methods. The process of collection development cannot be approached in a haphazard manner, but must be carefully planned and constantly evaluated and monitored. This is central to the library fulfilling its mission and objectives, and as such is extremely important. The collection development process involves analyzing the needs of the users that are being served; establishing a collection development policy framework that will guide the collection process; selection and acquisition of the relevant information materials; and evaluation and de-selection of the collection.

### **1.2.1 User Needs Analysis**

Collection development process begins with the community – knowing the users and analyzing their information needs first before any other process. A library must first know its user community and then analyze the information needs of that community. Effective collection development can only be possible when it is based on sound knowledge of the community that is being served. User needs assessment can be done through analysis and surveys although much information can be gleaned by studying the syllabus, departmental web pages, curriculum vitae of researchers and academics, current research projects, and minutes of academic meetings (Haas, 2000). It is also valuable to evaluate circulation statistics, interlibrary loans requests, and analyze the size, depth, breadth and growth of the library's collection (Allen 1994). Maintaining constant contact with students and academics in order to keep up with new courses and programmes offered is also important.

### **1.2.2 Collection Development Policies**

The process of collection development is guided by a written collection development policy. A Collection development policy is a document which defines the scope of a library's existing collections, plans for the continuing development of resources, identifies collection strengths, and outlines the relationship between selection philosophy and the institution's goals (White and Crawford, 1997). It is an important tool for guiding all activities related to planning, budgeting, selecting and acquiring of library materials (Magrill and Hickey, as quoted by Mutula, 2003). It is one of the first pieces of evidence in determining whether a library is engaged in good collection development practices. Collection development policy informs everyone about the nature and scope of the collection and collecting priorities. It also provides a means of assessing overall performance of the collection development program. A written collection policy can either be in print format, electronic format or both formats.

Several reasons necessitate formulation and availability of a collection development policy. One of the reasons is the proliferation of electronic information due to advances in information communication technology. Gessesse (2000) notes that collection development policy must be written or revised to include electronic resources as another format for collecting. Another reason for having a written collection development policy is the problem of lack of continuity in both staff and funding. A written policy helps assure continuity and consistency in the collecting process despite changes in staff and funding (Evans and Zaranosky, 2000). Evans and Zaranosky argue that many academic libraries fail to formulate or update their collection policies. One of the major reasons is



because a good policy statement requires large quantities of data and a great deal of thought. A policy must change to reflect the changing community; therefore, collection development staff never finishes collecting data and thinking about the changes.

A collection development policy consists of three elements: an overview; details of the subject areas and formats collected; and miscellaneous element. Element one (an overview) contains a brief description of the service community, specific identification of the service clientele, a general statement regarding the parameters of the collection, and a detailed description of the types of programs or patrons' needs that the collection must meet (Evans & Zaranosky, 2000). Element two (details of subject areas and formats) identifies the subject areas and the types of the materials to be collected and the primary user group for each subject. It also specifies the selection criteria and who is to select, the scope and the level of intensity at which the subjects would be acquired and information regarding the language, publication date, and the formats appropriate for acquisition (Gessesse, 2000). Element three (the Miscellaneous issues) deals with gifts and discards, evaluation, and complaints and censorship.

One of the functions of a collection development policy is to inform everyone about the nature and scope of the collection, collection priorities, and purpose of collection development process. A written policy may not serve its purpose if it is not communicated to the people (staff and users). A policy that is in electronic format is easy to communicate to the public through the Internet or the Intranet of the organization. In

libraries of developed nations, information communication technologies are being used to communicate the collection development policies to the staff and users.

### **1.2.3 Selection Process**

Selection process is one of the most important processes in collection development. It is the process of identifying collection needs in terms of subjects and specific types of materials; determining how much money is available for collection development and allocating a specific amount for each category or subject; developing a plan for identifying potentially useful materials to acquire; and conducting a search for the desired materials (Gessesse, 2000).

There are several steps in selection process. First, selectors must identify collection needs in terms of subjects and specific types of materials (this is so where there is no written collection development policy). The next step involves determining how much money is available for collection development and allocating a specific amount for each category or subject; developing a plan for identifying potentially useful materials to acquire; and finally, conducting the search for the desired materials. The identification of potential acquisitions draws heavily from published lists, catalogs, flyers, announcements, reviews, and bibliographies (Evans, 2000). Libraries which do not use information technology in collection development rely heavily on print-based selection tools. The problem with some of these print-based selection tools such as reviews may generally take long to appear and they may not cover all the published materials (Evans and Zaranosky, 2000).

The process of selection using print selection tools also makes the entire process of acquisition of information materials painstakingly slow.

The selection process in an academic institution is a joint responsibility of the library staff and the teaching staff. It is generally accepted that librarians, in a consultative relationship with the teaching staff, are in the best position to build library collections (De Stefano, 2001). The librarians collect catalogues and book lists and send them to the lecturers for identification of relevant materials. This process makes the selection process slow and less effective. This is because some lecturers may not respond at all while others may occasionally insist that the library build its collection around his or her subject interests.

Information Communication Technologies (ICTs) have made the selection of materials more effective and faster. Selection can now be done electronically through electronic tools such as publishers' and book vendors' web sites (such as amazon.com), online catalogs of book distributors, integrated library management systems, online book reviews from databases, and search engines. Selection of information materials can also be done online. For example Amazon booksellers allow customers to select books from their web site and order them online. The computer networks have also made it possible for librarians to compile bibliographic lists with brief reviews or table of contents of relevant information materials from the web site and send them to the lecturers for selection.

Additionally, publishers, booksellers, and vendors of library materials are taking advantage of the Internet, especially the World Wide Web and the e-mail facilities, to market and sell their products and communicate with clients. They are setting up web sites, providing online catalogues, abstracts, bibliographic citations, ordering information, and announcements of forthcoming publications. This information is updated regularly and is useful for selection and acquisition of information material. Libraries that have internet are using these facilities provided by vendors for electronic communication, selection, and ordering of information materials. This is speeding up the process of collection development (Chisenga, 2006). Additionally, Chaudhry (1995) observes that the internet can be used to connect acquisitions librarians to systems such as library catalogs, citation databases, and free web sites to identify materials for selection. When connected, librarians can use information on the holdings of another library as guidance in selecting materials for inclusion in their collection. Through listservs, materials available for exchange and gifts can also be identified for selection.

#### **1.2.4 Acquisition Process**

After selection, the next step in collection development is the acquisition. Generally acquisition is defined as the process of acquiring books and other information materials for the library. The first step in acquisition process is to organize the incoming requests in order to carry out verifications. Many selectors may request items already in the collection or they may combine or confuse authors' names, titles, and publishers. Therefore bibliographic verification, which is the next step, becomes necessary. The verification involves two processes. The first step is verification and second step is

searching, which is establishing whether the library needs to order the item. Verification is aimed at checking whether bibliographic details of the items selected are entered correctly and searching ensures that the materials ordered are not duplicate copies of what is already in the collection.

The process of searching and verification can be slow and tedious especially if the selections made are many. The use of integrated library systems can make searching quicker and easy. Many of these systems show ordered and received status in the online public access catalog, which tends to reduce the number of requests that duplicate existing orders (Evans and Zaranosky, 2000). Verification of order information can also be done using the internet. This can be achieved through publishers' online catalogs or distributors' web pages (for example Amazon.com).

Before placing an order, an acquisition librarian must determine which acquisition method to use, what vendor to use, and where to get the money. After this is done, the librarian assigns an order number to assist in tracking the order. As soon as the orders are signed they are ready for mailing to the vendor.

Information Communication Technology (ICT) can be used to order materials in an efficient and cost-effective manner. Evans (2000) notes that libraries today; especially in developed countries use computer-generated orders and store data electronically, thus reducing the volume of paper associated with ordering activities. For some libraries there are no order forms because they handle the entire order process electronically, storing the

transaction in both library's and supplier's computers. The process of ordering materials can also be done through online transaction whereby electronic money transfers are used. This process of online ordering makes acquisition of information materials faster and efficient.

Receiving orders, which is the last step in acquisition, requires careful planning. If not handled properly, receiving can be more complex and time-consuming than ordering. It requires proper unpacking of shipments, finding of packing slip or invoice, checking each packed item against the packing slip, and examining the physical condition and editions of the items received.

Automation has been a feature of acquisitions for a long time now, mainly in the form of automated acquisition systems. The advantages of automated acquisition systems are: the inclusion of on-order records in the library catalogue and the direct loading of new title announcements as potential order records which give library users enhanced access to available study material; accessions lists that can easily be produced and selectors notified of new titles and approvals as they appear; by using file transfer protocol the loading of approvals and exchange data on local systems can be processed in minutes; files can also be widely circulated, helping to fill gaps in the collection. Some of the main benefits of automating are to avoid the verification and re-keying of data; to order, claim cancel, and receive acknowledgements and status reports more quickly and accurately; bookseller queries sent by electronic means can be resolved much faster than by post; and

the automatic matching and updating of library acquisitions files, and even generation of payment, without direct intervention by the library, are now feasible.

Several software that help in acquisition of information materials are available and in use by libraries. These software ranges from open systems that allow a library to select modules that best suit the functions of the library; integrated single-vendor systems that have different modules that are integrated; open source systems that are available freely from the internet; and shared systems that are shared by many libraries in a co-operative arrangement. There is an increased trend towards multi-purpose systems linked to the Internet and CD-ROM sources. For instance, Strathmore university library uses an integrated open source system (KOHA) with acquisition module that helps in management of acquisitions function. United States International University – Kenya and Daystar University use single vendor systems that also have acquisitions modules.

Electronic ordering, claiming, and invoice processing assist in the efficient processing of acquisitions in a library. Electronic Data Interchange (EDI) is the commercial interchange of data using agreed standards, and is therefore useful in acquisitions. EDI requires that both the library and the vendor be automated, with special software acting as a common interface between systems over telecommunication network. Orders, acknowledgements, claims and invoices can all be sent electronically, and fund transfers are possible. The aim is universal linking-in of library and book trade organizations, with the ultimate goal of the book's details being entered only once, by the publisher at the beginning of the cycle.

Benefits of EDI include reduced administrative costs through elimination of re-keyed data, more accurate transmission of data, and faster forwarding and receipt of orders and messages. The result should be improved access for the library user, since the books are received quicker, are more likely to be correct, and can be automatically notified to the requester on arrival. Order status, price and availability information, alongside up-to-date bibliographic details of new books, help make such online systems serve user needs effectively. Book suppliers using EDI can avoid re-keying data in-house, and can monitor stock levels and returns more easily; orders for titles not in stock can be automatically dispatched to the publishers. EDI also gives the publishers better sales information, which should result in fewer titles going out of print unnecessarily and hence more comprehensive collections for library users.

### **1.2.5 Evaluation Process**

Collection evaluation is a process which is aimed at determining the strengths and weaknesses of a collection. Evaluation of a collection is important because: it helps in developing intelligent, realistic acquisitions program based on a thorough knowledge of the existing collection; it helps to justify increased funding demands or for a subject allocation; it helps to increase the staff's familiarity with the collection; and it helps to know if the library is comparable to others serving similar communities (Evans and Zaranosky, 2000). Collection evaluation is also important to collection development because it is impossible to build a balanced, relevant collection of materials unless the strengths and weaknesses of the current collection are known. Emanuel (2002) argues that finding time to review a collection is difficult but often necessary. Librarians need to



be aware of the current collection so that they have a better basis for decision making when acquiring information materials in future (Agee, 2005).

Agee gives several approaches that can be used when evaluating a collection: user-centered approach; collection-centred approach; and assessment of specific subject approach. The American Library Association (ALA's) guide to the evaluation of Library Collections divides the methods into collection-centred measures and user-centred measures. Collection-centred methods involve checking list, bibliographies, and catalogs; expert opinion; comparative use statistics; and collection standards. User-centred methods include circulation studies; user opinion; analysis of inter-library loan statistics; citation studies; in-house use studies; and document delivery tests (Evans and Zaranosky, 2000).

User-centered approach is done through a survey using questionnaire or interviews. Traditionally, user surveys are done manually by sending printed copies of questionnaire to users to fill; a process which is slow and less efficient. ICTs have made this approach to collection evaluation easier and more efficient through the use of library management information systems. Most online management systems collect circulation data that may be organized in some form to provide information on frequency of usage of individual titles or classification area, comprehensiveness of the collection, and relevance of the collection to the users' needs (Agee, 2005).

Physical assessment involves physically determining if the collection meets the users' needs. The information is then recorded on a card or on a spreadsheet using a computer and then analyzed and decision made on either to keep the book in the collection or to remove it. These two methods of collection evaluation are time consuming and labour intensive.

As more and more libraries continue to build electronic collections, traditional collection evaluation methods no longer fully meet the users' needs. The diversity of resources currently available in libraries requires evaluation from multiple perspectives, the old methods of evaluation of print resources, and the newer usage-based statistics for electronic resources. With ICTs, availability of statistical data on usage of electronic resources has been enhanced. The patterns of use of electronic resources can now be tracked using log analysis (Yi and Borin, 2006).

### **1.2.6 Weeding Process**

Weeding is the practice of discarding or transferring to storage excess copies, rarely used books and materials no longer in use. Discarding involves withdrawing a volume of a book from a collection because it is unfit for further use or is no longer needed (McGraw, 1956) whereas transferring retains the item at a second level of access which may not be open to the user. Reasons for weeding a collection include: the material and information may be out of date; the materials may be deteriorated physically; better editions of a specific title may be available; or the institutional objectives may have changed and therefore the need for the collection to change over time to reflect changes in the user

community and library goals. Above all when libraries do not weed regularly or consistently, customers have trouble finding relevant materials and therefore removing outdated or worn out items makes the collection not only more visually attractive and more inviting to users but also the library is able to supply information that is easy to find and up-to-date.

### **1.2.7 Electronic Collection Development**

Developments in information and communication technology have revolutionized information and changed the seeking behaviours of library users. Access to information through the internet is now ubiquitous. New technologies have facilitated the rapid transformation of data and information into digital form, while development in software has provided powerful new methods of collection development and management. As a result, there has been a change in ways in which documents and information are produced, stored, organized and accessed. The changes have affected the information seeking behaviours of library users. The developments have meant that users are now able to access information via local and global networks, so that fewer visits are being made to the libraries. Digitization, which is another form of building electronic collection, enables the information to be delivered in electronic format, and users are becoming increasingly reluctant to use physical materials, perceiving the internet to be the answer to their informational needs. The library now has many competitors for the provision of information to the users. This therefore calls for efficient and effective methods of collection development and management. It also means that while the practices of collection development which were developed in the world of print

publications may not change radically with new technologies, methods of decision making and specific selection guidelines must be adjusted significantly to incorporate new information formats.

One approach of developing electronic information in academic libraries involves direct subscription of electronic information such as on-line databases, e-books, e-journals and electronic bibliographies through the internet or CD-ROMs. According to Gbaje (2007), the process of developing electronic information resources includes “acquisitions of electronic resources such as databases, e-books and journals through license and access to quality free web based resources”. This process which is commonly referred to as electronic collection development requires that a library should have appropriate ICT infrastructures such as a reliable internet connectivity and web site to provide users with access to relevant information for research, learning, and teaching. In Kenya, most university libraries subscribe to electronic resources through Programme for Enhancement of Research Information (PERI) through a consortium of university and research libraries.

With the information revolution brought about by the ICTs, academic libraries have graduated from their traditional role as storehouses of information to vigorous disseminators of information. Collection development practices have also changed from the traditional practice to modern practice of collection management. This has been necessary given the changing information formats and user information seeking behaviours. Users are beginning to expect electronic information delivery that is speedy,

accessed at remote sites, and full-text. Therefore the option of not providing electronic information is no longer available for most academic libraries in spite of their limited budgets. Many libraries are coming together to form consortia for electronic resource sharing and technology support. Examples of such consortia arrangements in Kenya are Kenya Library and Information Services Consortium (KLISC) and Kenya Education Network (KENET). KLISC is a consortium of all university and research libraries in Kenya that enables them to gain access to electronic resources at a subsidized cost through cost-sharing arrangements. KENET on the other hand offers technology support to universities in Kenya.

### **1.2.8 Collection development practices in Kenyan University Libraries**

While the goal of collection development is to meet the information needs of the university community, this is not being realized in most universities in Kenya. This is due to financial constraints which curtail provision of information resources that meet the diversity of user information needs and large amounts of information resources available (Kavulya, 2004). The standard and guidelines provided by Commission for Higher Education (CHE) state that the annual library budget should be 10% of the total university budget. These guidelines are usually not adhered to and most libraries in Kenya suffer from budgetary constraints (CHE, 2007). These constraints have made many of the university libraries in Kenya to apply minimal use of ICTs in collection development.

The requirement by CHE is for all libraries in private universities to have a written, up-to-date collection development policy that describes collection of information resources in all formats (Commission for Higher Education, 2007). The policies should also be communicated to the staff and the management so that they can know what is expected of them and the collection. But in a study carried out by Kavulya in 2004, several university libraries in Kenya indicated that they have collection development policies but the situation of these policies range from outdated and inactive (for example University of Nairobi and Kenyatta University policies) to recently drafted comprehensive collection development policies (as the case with United State International University - USIU) (Kavulya, 2004). Kavulya notes that where the policies are not active, the libraries rely on the university statutes for guidance which states that the principle collection development goal is to meet the information needs of the users. In some universities (for example St. Paul's University) the collection development policy was not in existence until CHE insisted that there should be one before the university could qualify to get a charter.

Most university libraries in Kenya have similar procedures in selection of information materials. Suggestion for selection of a title is done by faculty members, whereas the process is managed and coordinated by acquisition librarians. The librarians look for selection tools, give advice on areas that need development, and make follow up to make sure that the selection takes place (Kavulya, 2000). Commonly used selection tools are publishers' catalogues, reviews and lists from bookshops and book vendors. However some universities use internet and CD-ROM databases to select information materials.

Ordering of the information materials is done by sending orders through e-mails. Many of the university libraries in Kenya do not order books online because of the challenges involved - financial constraint, poor infrastructure, lack of skills (Kavulya, 2004). The ordering process is continuous throughout the year.

### **1.3 Statement of the Problem**

It is important for university libraries to develop a collection of high standards for them to attract academics and researchers and provide support to the academic goals of the university. However, the current collection development practices in private university libraries in Kenya are not adequately effective and efficient. This is because most of these libraries still use traditional collection development practices. For example the process involves walking from one bookshop to another looking for books and book lists; soliciting for book catalogs and reviews from vendors and publishers; manually going through the print catalogs, book reviews, and bookshop lists to select relevant titles; and soliciting for book quotations from the publishers and vendors. This makes the whole process of collection development slow and causes delays in acquisition of information materials.

Most collection development policies in most of these libraries are either inactive or have never been updated for a long time. In addition, these policies are never communicated to the staff and especially to the teaching staff who fundamentally help in selection of information materials in the library (Kavulya, 2000). They are in most cases not aware of what is expected of them in the selection process.

In some private university libraries, selection of information materials is done by the teaching staff. Soliciting their co-operation in selection of information materials presents a challenge to these libraries in that keeping up their co-operation and their interest in recommending titles for purchases requires constant communication. Additionally, some of the traditional selection tools such as printed bibliographies and book lists do not give a lot of details of a given title. Most teaching staff may not be aware of what is relevant and therefore they may need more details to judge the relevance of a title to the collection. Moreover, these selection tools are only a few copies. Circulating a copy to five or more lecturers becomes a challenge because most of them may not be keen to pass the selection tool to the next person. This therefore delays the selection and acquisition process.

The acquisition process requires that one creates and keeps proper records of what has been ordered and received, the amount spent on each order, the suppliers and when the orders were made or received etc. Manually, this process can be tedious and confusing and sometimes records may get lost if not kept well.

Moreover, changes in information formats, access to local and global information through the internet, and changing information seeking behaviours of library users has changed the process of collection development in libraries. There is more emphasis on collection of electronic resources such as e-journals, online databases, e-books, online bibliographies; due to comparative advantage of these resources compared to print resources. Heightened user preference for electronic information is compelling libraries



to build electronic collections. Therefore for effective building and management of these collections, there is need for effective practices for both print and electronic information collection development in university libraries.

Use of information Communication Technology in collection development can enhance the process and reduce the challenges caused by traditional collection development practices. Major opportunities in collection development presented by ICTs to libraries are mainly in the following areas: Communication of collection development policies to the stakeholders; efficient management of collection development budget; electronic selection of information resources; online acquisition of information materials; building digital collection; and organization of information materials for use. Boakye (1994) observes that ICTs help make any procedure for selecting, acquiring and processing of information materials easier and quicker. For example when a suggestion is received for a title, catalogues and files need to be checked to find out if that particular title is already in the collection, in processing, or has been placed on order. Boakye further indicates that effective application of ICTs can provide answers to all these queries in a much shorter time than can be done manually. However, in Kenya not adequate studies have been undertaken to investigate the extent to which application of ICTs could address the challenges of traditional collection development practice.

#### **1.4 Aim of the study**

The aim of this study was to investigate ways in which collection development practices in private university libraries could be enhanced by use of information communication technology with the view of suggesting a framework for effective development of information collections in private university libraries in Kenya.

#### **1.5 Objectives of the study**

The objectives for this study were:

1. To examine collection development practices of private university libraries in Kenya
2. To establish the current concerns and constraints in collection development practices
3. To establish the extent to which ICTs are applied in collection development activities in private university libraries
4. To explore the levels of development of electronic information resources in private university libraries
5. To suggest the ways in which ICTs could be used to enhance collection development practices in private university libraries

#### **1.6 Research Questions**

In order to meet the study objectives, the following questions were used:

- Q1. What collection development practices do private university libraries in Kenya use?
- Q2. What challenges and constraints are private university libraries facing in collection development?

- Q3. Have private university libraries applied ICTs in collection development?
- Q4. To what extent have private university libraries developed electronic information resources?
- Q5. Are library patrons in private universities satisfied with the collection in their libraries?
- Q6. What technology infrastructure exists to support collection development activities?
- Q7. In which ways can ICTs be used to enhance collection development practices in private university libraries?

### **1.7 Assumptions**

1. Traditional collection development practices are an impediment to effective and efficient collection development in private university libraries.
2. Collection development in private university libraries can be enhanced by use of ICTs.
3. Current concerns and constraints in collection development have not been adequately addressed by private university libraries.

### **1.8 Significance of the study**

#### **1.8.1 Theoretical significance**

The findings of the study helped in developing a framework for effective and efficient application of Information and Communication Technology in collection development in university libraries. The findings are also useful for effective use of ICTs in selection,

acquisition, evaluation and de-selection of information materials in private university libraries in Kenya.

### **1.8.2 Practical significance**

The study forms a basis for further research on collection development in private university libraries in Kenya. This leads to generation of better and more ideas on application of ICTs in collection development activities. The results of the study also add on to the literature on collection development useful to students and scholars.

### **1.8.3 Policy-related significance**

The findings and recommendation of the study are useful to the collection development managers of university libraries in identifying efficient ways of carrying out collection development activities and developing better collection development policies.

## **1.9 Scope, Delimitations and Limitations of the study**

This study on application of Information and Communication Technology in selected private university libraries was conducted using cross-sectional survey design. The study was conducted in three selected private universities that are chartered. The selected private universities were St. Paul's University, Strathmore University, and United States International University. The data was collected using interviews and questionnaires. The study sought to investigate ways in which collection development practices in private university libraries could be enhanced by use of information communication technology.

The study sample for the study was a limitation in that only three selected private university (St. Paul's, Strathmore, and USIU) and few staff in the library, post-graduate students, and faculty deans were used for the study. To make sure that this limitation did not affect the results of the study, the research used interviews and open-ended questionnaires to collect in-depth information and probe for more information.

The data collection instrument for the study was interview schedules. The purpose of using this instrument was to enable in-depth collection of data. However, due to difficulty in getting student respondents (as most of them were either evening or modular students), it was not possible to collect data from them using interview schedule. To overcome this limitation, the researcher opted to use open-ended questionnaires to collect information from the student respondents.

### **1.10 Justification for the study**

Provision of information materials is the most fundamental activity of all libraries. The information materials provided must be current and relevant to the needs of the users being served by that library. Collection development activities ensure that the users have access to information that is relevant, current and in a format that is desirable. This study was therefore important because there is need to find ways of making collection development activities more efficient and effective in providing information materials to the users. The study provided useful information on how ICTs can be used to enhance collection development activities in private university libraries.

### **1.11. Definitions of operational terms**

**Acquisition** – The process of obtaining information materials through purchases and exchange of gifts.

**Automation** - The use of automatic processing devices in different activities of a system.

**Bibliographic verification** – The process of establishing the existence of a particular item and identifying the correct bibliographic details of the item.

**Collection Development Process** – A range of library activities including information needs assessment, developing collection development policies, selection process, acquisition, evaluation and weeding of the collection.

**Collection Development Policy** - A document which defines the scope of a library's existing collections, plan for the continuing development of resources, identify collection strengths, and outline the relationship between selection philosophy and the institution's goals.

**Collection Evaluation** - Judgement as to the value of a library collection based on comparison with some known value.

**Information and Communication Technology** – A set of technological tools and resources used to create, disseminate, store, and manage information.

**Selection** - Deciding which materials to acquire according to the needs of the users.

**Weeding** – The process of removing information material from the open shelves of a library by re-assessing their value in terms of the current needs.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Literature review is the systematic analysis of documents containing information related to the research problem being investigated (Ridley 2008). The purpose of reviewing the literature was to determine what has been done already related to the research problem being studied. This chapter discusses the literature related to ICT and collection development activities in academic libraries; challenges and constraints that private university libraries are experiencing in application of ICTs in collection development, and the advantages and disadvantages of using ICTs in collection development activities.

#### **2.2 Theoretical Framework**

A theory is a reasoned statement or groups of statements, which are supported by evidence, meant to explain phenomena. It is a systematic explanation of the relationships among phenomena (Kombo and Tromp, 2006). Theories explain a generalized explanation to an occurrence. A theoretical framework is an examination of the existing or self-formulated theories in relations to the research objectives (Oso and Onen, 2005). Kombo and Tromp indicate that a theoretical framework introduces the researcher to a new view of the research problem thus enabling the researcher to understand the total realm of the problem. It also enables the researcher to conceptualize the topic in its entirety as an outgrowth of the larger society. This enables the researcher to acknowledge



the problem from a wider perspective and not from a narrow personalized self-interest approach.

The theoretical framework that was used to inform this study is derived from the Systems Theory of Organizations advanced by Ludwig Von Bertalanffy in the early 1950s which stipulates that a system consists of various subsystems which must function together for the system to work (Oso and Onen, 2005). It also stipulates that a system is an open entity that interacts with the environment. Other competing theories that the researcher felt may be used to the study included Classical and Neo-classical Organizations Theories, but the researcher felt that they are not suitable for this study. This was because they emphasis systems as fragmented and closed units independent of external forces. Systems Theory was selected for this study because of its fundamental notion of interaction in that libraries can be studied as open systems that have subsystems that interact with each other and with the environment.

### **2.2.1 Systems Theory of Organizations**

Systems Theory stipulates that a system consists of various components or subsystems which must function together for the system to work. Oso and Onen (2005) argue that if a subsystem fails, the whole system is put in jeopardy. They further argue that the fundamental concept of System Theory is the notion of emergence and interaction. Systems take inputs from the environment, process them and produce outputs to the environment. Systems are also characterized by self-regulation and control. They monitor, regulate, and control their outputs in order to remain stable and achieve goals.

Because a system exists in a dynamic environment, it must be adaptable and able to change (Littlejohn and Foss, 2005).

The system theory was preferred because of its concept of a system consisting of subsystems that are interrelated and that work together for the system to work and open systems interact with the environment and are affected by the changes that take place in the surrounding environment. Collection Development as a subsystem of the library system has functions that are interrelated and that are affected by changes in the surrounding environment. The goal of collection development in academic libraries is to effectively provide relevant and up to date information in all formats to library users. Information and communication technology has impacted heavily on the information environment within which academic libraries operate. Higher user expectations, changes in information formats, changes in the format of selection tools, are all changes, driven by ICTs that are forcing academic libraries to change the way they do business. Collection development as a user-centered activity should be done to the satisfaction of users and if using ICT is what will provide effective information materials more efficiently, then academic libraries have no choice but to embrace ICT in their collection development practices.

### **2.3 Traditional Collection Development Practices**

Collection development refers to the process of planning and acquiring a balanced collection of library materials over a period of years, based on an ongoing assessment of the information needs of the library's clientele, analysis of usage statistics, and

demographic projections (Reitz, 2007). Andrade and Vergueiro (1996) define collection development as a synthesis of several interrelated and interdependent activities primarily concerned with the planning, selection, acquisition, maintenance, preservation and evaluation of library collections, and aimed at making them more adequate for their objectives and the needs of their users. Simply put, collection development is the process of selecting information materials for inclusion or exclusion from the collection in order to meet the needs of a given clientele. Kavulya (2004) adds that the primary goal of any university library is to select, organize and provide access to all varieties of information for users.

Collection development is designed to purposely provide the library with an information resource that meets the appropriate needs of its clients. In his article entitled *Collection development and management in the 21<sup>st</sup> century*, Gessesse (2000) points out that in order for a library to reach this goal, each segment of the collection must be developed with an application of resources consistent with its relative importance to the mission of the library and needs of its users. He also adds that collection development comprises planning, goal-setting, decision-making, budgeting, and acquiring materials and evaluating them. Collection development activities are geared towards meeting the needs of the clientele. These needs may not be static; rather they change with the environment. This dynamism of user information needs compels libraries to review collection development activities from time to time (Gessesse 2000).

The traditional collection development practice in university libraries involves planning, selection, purchase of new materials (acquisition), deselecting (weeding), and evaluation of the existing collection.

### **2.3.1 Planning process**

The planning process involves determining the needs of the users, writing collection development policies that guide the entire process of collection development, and setting a side a budget that will be used to acquire the materials.

#### **2.3.1.1 Determining the needs of the users**

According to Andrade and Vergueiro (1996), collection development process begins with the community – knowing the users and analyzing their needs first before any other process. A library must first know its user community and then analyze the information needs of that community. Effective collection development can only be possible when it is based on sound knowledge of the community that is being served. Jagannathan (1989) states that user analysis is the first step to collection development.

User assessment is important when developing collection development policies, standards and guidelines. User needs assessment can be done through analysis and surveys although much information can be gleaned by studying the syllabus, departmental web pages, curriculum vitae of researchers and academics, current research projects, minutes of academic meetings (Haas, 2000). It is valuable to evaluate circulation statistics, interlibrary loans requests, and analyze the size, depth, breadth and growth of the

library's collection (Allen 1994). It is also important to maintain constant contact with students and academics in order to keep up with new courses and programmes offered.

### **2.3.1.2 Collection development policies**

Fourie (2001) has defined Collection Development Policies (CDP) as “the written statement that provides planning and implementation guidelines for most collection building tasks”. The American Library Association (1987) defines CDP as documents which define the scope of library's existing collections, plan for the continuing development of resources, identify collection strength, and outline the relationship between the philosophy and institution's goal, general selection criteria, and intellectual freedom. Vogel (1996) argues that a CDP is simply a guideline for decisions on the selection and retention of information materials in specific subjects, to specific levels of collection development depth and breadth.

Several advantages are given for having a written collection development policy in a university library. First, Breaks (1999) argues that a CDP prevents a library from being driven by events and individual enthusiasm and from buying a random, poorly planned set of resources. It can also help to introduce changes into a library without too much resistance as guidelines are clearly set in the policy. CDPs are good communication tools both internally and externally. Fourie (2001) indicates that internally, CDPs can be used to communicate to the parent organization that certain types of materials in specific subject fields are being bought as a matter of policy. A CDP is a valuable means of showing students and staff why a library contains certain materials and not others.

Externally they can be used as a policy document to communicate with a network or a consortium (Fourie, 2001). Van Vijl (1998) advocates using a CDP as a means of protection. It protects the library and selectors by providing them with a firm framework in which to make decisions. However, Snow (1996) states that a CDP is theoretical and is an intellectual guide to selection rather than practical one. If the document is not revised it loses the value it might have had. Hazen (1995) as cited by White and Crawford (1997) writes that traditional collection development policies are static and do not meet the needs of today's librarians. He suggests the use of flexible descriptions or guides within a field of study which include all formats of information and local and remote resources. Corrigan (2005) argues that it is easy to be hesitant about writing collection development policies because their standard format is illusive. He indicated that writing them steals time from otherwise busy librarians and more so if combined with a collection assessment, especially in large libraries. Once written, policies can languish after completion, rarely read and easily forgotten.

A written collection development policy provide guidance and direction to the selection process and helps to define the scope of a library's existing collections, plan for the continuing development of resources, identify collection strengths, and outline the relationship between selection philosophy and the institution's goals (Gessesse, 2000). Vickery (2004) argues that the document serves as a guideline for making selection decisions according to specific levels of collection depth and breadth, for each subject and format. He indicates that this is intended to reduce personal bias by setting individual selection decisions within the context of the broader aims of collection building.

Collection development policies provide a sound foundation for future planning, thereby assisting in determining priorities, especially when resources are limited. This provides a basis for fair allocation of resources, and helps to protect library funds by explaining the rationale behind acquisition bids (Vickery, 2004). Formal policy statements are also useful in making the case for the library when dealing with both its users and masters. Vickery further argues that the policy statement serves as a form of contract with the library's users, and enables individual selection decisions to be justified on an objective basis.

White and Crawford (1997) sums it up by indicating that written collection development policies serve many purposes: they describe the current collection; they establish priorities; assist with budgeting; they serve as communication channel within the library and between the library and outside constituents; they support cooperative collection development; protect individual freedom and prevent censorship; and assist in overall collection management, including handling of gifts and donations, deselecting of materials and serial cancellation.

A collection development policy consists of three elements: an overview; details of the subject areas and formats collected; and miscellaneous element. An overview contains a brief description of the service community, specific identification of the service clientele, a general statement regarding the parameters of the collection, and a detailed description of the types of programs or patrons needs that the collection must meet (Evans & Zaranosky, 2000). Element two (details of subject areas and formats) identifies the

subject areas and the types of the materials to be collected and the primary user group for each subject. It also specifies the selection criteria and who is to select, the scope and the level of intensity at which the subjects would be acquired and information regarding the language, publication date, and the formats appropriate for acquisition (Gessesse, 2000). The Miscellaneous issues section deals with gifts and discards, evaluation, and complaints and censorship.

A written collection development policy can either be in print format (traditional format) or electronic format. A policy that is in electronic format is easy to communicate to the users and the people involved in the selection and the parent organization whereas a print CDP may not be easily communicated. Another problem with the traditional print policies is that they are hard to revise and may not easily evolve to reflect the ever-changing world of electronic publications (Vickery, 2004).

One challenge of writing collection development policies is that most of them require detailed descriptions of collection strengths. The exercise of collecting this information is time consuming. The document must also be reviewed from time to time; otherwise it will soon become out of date. This task of revision is usually neglected in many libraries. As Futas (1995) puts it, the document should be “a living, breathing entity that is always thought of, always lived with, always tinkered with, and never quite finished”.

Gessesse (2000) points out that another challenge with traditional CDPs is that most of them are written for acquisition of print and multi-media information resources. He



further agrees that the main challenge nowadays is the inclusion of electronic resources in the collection development policies. As Futas (1995) writes, one main difference between traditional collection development and electronic collection is that the former is based on ownership of the materials and the later is based on access to the materials. There is no consensus on whether librarians should formulate a comprehensive collection development policy to include electronic resources, or a separate one for electronic resources. Gessesse (2000) indicates that this does not warrant a separate collection development policy for electronic information resources but electronic media should be incorporated into the overall collection development policy of an academic library setting. Kovacs and Elkorby (2000) make some recommendations in terms of developing an electronic collection plan which offer an interpretation of key issues such as analysis of users, electronic resources selection criteria, the services and access issues in totality that is the physical, intellectual, and technical access. Other authors advocate for separate policies for print and electronic information resources.

Paradoxically, many academic libraries in Kenya may not have written policy documents leave alone policies that incorporate electronic resources. Those that have policies they are rarely updated and are very in-active (Kavulya, 2004) The Commission for Higher Education standards and guidelines for universities in Kenya is that a university library should have written policy document that supports selection and acquisition of information resources in all formats (Commission for Higher Education, 2007).

### **2.3.1.3 Collection development budget**

The amount of money allocated each year for collection development determines the quality, quantity and effectiveness of any collection in a library. In Kenya, the requirement by Commission for Higher Education (CHE) is that the library budget should be ten percent (10%) of the total budget of the university but most universities don't adhere to this requirement (CHE, 2007). Therefore most university libraries in Kenya have inadequate budget; a situation that curtails the collection development process in these libraries.

The practice in most academic libraries in Kenya is that a budget is drawn and approved at the beginning of every academic year for purchase of information resources in a given year. Acquisition librarians are required to adhere to the budget given for that year. They are required to evaluate the body of available sources, comparing them to the research and teaching interest of their primary clientele and select materials which will satisfy as much as possible the current demand from the on-site collection (Kavulya, 2004).

Ensuring a balanced stock involves more than just giving appropriate sum of money to various categories, the library needs to keep track of how the money allocated is spent, and ensure whether all academic areas are covered (Lovecy, 1996). This would be more effective by using an automated library system that keeps track of how the money is spent.

### **2.3.2 Selection Process**

The selection of information materials is deciding which materials to buy according to the needs of the users. Selection determines the nature of the collection in an academic library. The purpose of selection process is to ensure that useful and relevant materials are acquired to meet the needs of the users.

Davies (1997) observes that in traditional selection process, the selector develops a plan for identifying potential useful materials to acquire and conducts a search for the desired materials. In most libraries, identification of potentially useful materials to be acquired draws heavily on information from published lists, catalog, flyers, announcements, and bibliographies. Several criteria are then used to select the materials deemed relevant. Davies says that at the centre of traditional selection model are three basic criteria; the reputation of the author and publisher, the scope and breadth of content and the relevant details of special format or features. She argues that these traditional selection practices are no longer sufficient with the advent of electronic resources.

After securing the list, the librarian assesses the worth of various titles on the same topic, and then determines the level of use of a title compared to the price. Evans (2000) indicates that one must secure more details about the level or need of a title before ordering the item. He argues that more often than not, one makes the assessment using published information rather than a physical examination of the material. An item-by-item physical examination and reading, listening, or reviewing is the ideal. Some booksellers may provide examination copies to libraries to help in the selection.

In University libraries, selection of information materials requires more time and attention than in other academic libraries. This is because of the size of the collection and the collection budget, varied user needs, and the kind of materials acquired (Evans and Saponaro, 2000). Typically, there are full-time collection development officers. However in smaller libraries with limited budgets there is strong faculty involvement in selection; sometimes the faculty has sole responsibility for building the collection. But Hill (1977) argues that it is time for everyone to question this practice because it is not the practice of faculty to build collections but to teach. He argues that librarians should take hold of the library's development in such a manner as to predict it, plan it, and, to some degree, control it.

Kavulya (2004) argues that in most academic libraries especially private universities in Kenya, selection activity is carried out by the acquisition librarians and the teaching staff and in some libraries, students. In public universities, selection is done by subject librarians. According to him, most commonly used selection tools in Kenya are publishers' catalogues, reviews, and bookshop lists. The selections are then forwarded to the acquisition librarian or subject specialists for verifications and ordering. However there are no other studies done to prove or disprove this argument. ICTs have made the selection of materials more effective and faster. Selection of information materials can now be done electronically through electronic tools such as publishers' catalogs, book vendors' web sites (for example amazon.com), online catalogs of book distributors, integrated library management systems, online book reviews from databases, and search

engines (for example Google books). Online databases are replacing bibliographies used for selection.

### **2.3.3 Acquisition process**

Acquisition is the implementation of selection decision. It is purely an administrative activity which is directly dependent on the previous activities as Andrade and Verguiero (1996) put it. It is achieved through purchases and exchange of gifts. The main concerns of acquisition librarian are related to a better, cost-effective management of the acquisition process.

The first step in acquisition process is to organize the incoming requests. The form of requests ranges from oral requests to a completed formal request form. The next step in acquisition is the preorder work which involves bibliographic verification or searching. Bibliographic searching consists of two elements. First is establishing the existence of a particular item, that is, verification. Second is establishing whether the library needs to order the item, that is, searching (Evans and Saponaro, 2005). In verification, the concern is with identifying the correct author, title, publisher, and other necessary ordering details. Searching determines whether the library already owns the item. Evans (2000) notes that integrated automated library systems make searching quick and easy, except for determining the need for additional copies. Many systems show ordered and received status in the online public catalog.

The next step after verification and searching is the ordering process. Several methods are used to order materials and each method requires somewhat different processing. Essentially there are eight standard methods of acquisitions: firm order, standing order, approval plans, blanket order, subscription, leases, gifts, and exchange programmes (Evans and Saprano, 2005). A firm order is the usual method for acquiring many titles that the library knows it wants – one or two copies of an item sent to either a vendor or the producer of the item sought. Evans and Saprano further indicate that the major drawback with this method is the time it takes to prepare the individual orders. Standing orders are mainly for items that are serial in nature. The library places an order for an item and the supplier automatically sends the item as soon as it appears. Approval plans are a variation of standing order concept. They involve automatic shipment of items to the library from the vendor, along with automatic invoicing after the library accepts the items. Blanket order is a combination of firm order and approval plan. It is a commitment on the library's part to purchase all of something, usually the output of a publisher, or a limited subject area, or from a country.

Evans and Saprano, (2000) say that today the majority of libraries especially in developed countries use computer-generated orders and store the data electronically thus reducing the volume of paper associated with ordering activities. They further argue that for a few libraries, there is no order form for current trade books, because the libraries handle the entire order process electronically, storing the transactions in both library's and the supplier's computers

After selecting a vendor, the library assigns an order number and decides which fund to use for payment. Order numbers assist in tracking the orders. Receiving orders requires careful planning. If not handled properly it can be more complex and time-consuming than ordering. Evans, (2000) notes that it is important to check each item against the packing slip as it comes out of the box when receiving. This serves as a check on what the shippers think they sent against what the library actually received.

Lovecy (1996) argues that application of ICT in acquisitions is largely driven by two aims: more efficient, quicker, and less staff-intensive ordering and accessioning procedure; and the desire to reduce keyboarding by entering a record into the system at the earliest possible moment. He argues that automated acquisition systems are designed to: record bibliographic details of all books ordered, produce printed orders to suppliers, and provide information on the progress of any order; process invoice information as orders arrive and maintain up to date expenditure and commitment figures for numerous budget categories; and provide a basic bibliographic record which can be enhanced to form the final catalogue entry.

University libraries in Kenya acquire materials from local bookshop and overseas publishers and distributors. They purchase locally available materials from local bookshops while materials not locally available are purchased through local as well international book suppliers and publishers. Kavulya (2004) argues that there is high depending on information materials from Britain and United States by university libraries in Kenya.

### **2.3.4 Evaluation Process**

Evaluation is judgment as to the value of a library collection based on comparison with some known value (Sheila, 1994). Evaluation is aimed at providing an assessment of the collection with regard to the aim and objectives of a specific user community (Andrade and Verguero, 1997). It is also aimed at attaining a well-developed collection, identifying inadequacies in the collection and selection activities and determining whether the collection development funds have been used well. Evaluation also determines which materials should be withdrawn from the collection.

Gessesse (2000) says that periodic evaluation of a library's collection needs to be made in order to measure their adequacy and quality, to consider whether they are satisfying users' needs, to identify and remedy deficiencies, to assess how well funds have been allocated, and determine whether the library's and institution's goals are being met. Evaluation of the collection has become more necessary especially in the electronic environment. This is because of the issue of permanence of the electronic resources and archiving needs of these resources. He argues that the permanence of electronic resources has become more fragile and librarians need to take an active role in establishing procedures and policies regarding the permanent archiving of electronic files. Agee (2005) on the other hand says that librarians need to be more aware of the existing collection so they have a better basis for decision making when acquiring digital information products



Agee (2005) gives three main approaches that are used in collection evaluation: user-centred evaluation; physical assessment; and assessment of specific subject approach. He further argues that ignorance of already-available resources, especially in an assigned bibliographic area, means that the expert librarians are providing a weak link between the existing collection and future collection. What this means is that evaluation of the existing collection is the foundation for building the best possible collection.

User-centered evaluations help librarians determine how well the library's holdings meet the needs of information seekers. Agee observes that this method benefits the librarians because it reveals a perspective of the collection that is drawn from the perceived needs of the library users. Physical assessment on the other hand involves having a subject specialist manually pull books from the shelves to determine if the item should remain in the collection. With the book in hand, the librarian records assessment information on a card or inputs into a digital spreadsheet (Agee, 2005). In assessing specific subject support, librarians use several tools to assess the specific subject areas. These tools may include citations for journal collection, inter-library loan requests, consortial agreements, etc.

### **2.3.5 Weeding process**

Weeding is the practice of discarding or transferring to storage excess copies, rarely used books and materials no longer in use. Discarding involves withdrawing a volume of a book from a collection because it is unfit for further use or is no longer needed whereas transferring retains the item at a second level of access which may not be open to the

user. Gorman, Howes (1989) have defined weeding as the process of removing material from the open shelves of a library by re-assessing their value in terms of the current needs. The materials are removed from the open shelves and relegated to some remote location, discarded, or ownership transference through donation or sale.

Effective management of a library collection requires a well planned and ongoing weeding programme whose rationale is the need for periodic or continuous assessment of resources intended to remove items that are no longer useful from the collection and ensure that what is kept in the collection is useful and accessible (Rossane, 1991). One of the justifications for weeding of library resources is limitation on the space available to house print collections. However according to Gorman and Howes, while it is necessary to go through the collection on a regular basis and to weed material to make room for other material, this should not be regarded as the only reason for weeding (Gorman & Howes, 1989). Other reasons for weeding of library collections include the fact that the material and information may be out of date, deteriorated physically, better editions of a specific title may be available or the institutional objectives may have changed and therefore the need for the collection to change over time to reflect changes in the user community and library goals. Above all when libraries do not weed regularly or consistently, customers have trouble finding relevant materials and therefore removing outdated or worn out items makes the collection not only more visually attractive and more inviting to users but also the library is able to supply information that is easy to find and up-to-date.

Today automated circulation systems can provide detailed information about an item, including frequency of use, class of borrowers, use by class number, age of the item, as well as the intellectual content of the item. This information is used to deselect items that are not in use or a no longer relevant in terms of age and content.

## **2.4 Current Concerns and Constraints**

Rapid changes in the information environment, economy, and in higher education have brought about several challenges and constraints in collection development in academic libraries. According to Jenkins and Morley (1996) economic constraints, lack of space, curriculum changes, expansion of higher education, the information explosion, and the growth of new information media, have led to higher priority being accorded to planned and coordinated collection management. They assert that this has also lead to a move away from developing local collections to providing a range of services to users, including access to remote sources of information. These challenges and constraints being faced by academic libraries have necessitated use of ICTs in collection development and management for effectiveness and efficiency.

### **2.4.1 Economic constraints**

Jenkins and Morley (1996) argue that economic constraints have led to shrinking book budget, fewer staff and insufficient space. This coupled with the increasing prices of books and serial and increased availability of alternative information formats – which are usually expensive - have reduced the purchasing power of most university libraries.

### **2.4.2 New technology**

Jenkins and Morley (1996) argue that the emergence of new technology has had a significant impact on university libraries collection development operations. The new technology has created an alternative path for access to information. This has necessitated investment in technical infrastructure and digital information resources in these libraries. The development of information technology and electronic information resources also forced collection development librarians to balance the demand for electronic as well as print collection.

Jenkins and Morley (1996) point out that the new technology has also had an effect on the interaction between the collection librarian and the library supplier. It has become easier for the librarian to evaluate the supplier's performance more easily as well as the supplier offering more services to the libraries. For instance it has become easier for the supplier to give more information about books and give details of books yet to be published as well as providing data on outstanding orders and on book and journal pricing trends (Jenkins and Morley, 1996).

### **2.4.3 Need for accountability and performance measurement**

Academic libraries are under pressure from the parent institution to ensure that the financial resources allocated to them are spent effectively, and to be able to demonstrate effectiveness, efficiency and value for money to their users and parent organizations (Jenkins & Morley, 1996). Decrease in funding and escalating cost of materials coupled

with demands for quality services by the users has forced university libraries to adopt ICTs in order to meet these demands.

#### **2.4.4 Expectations and needs of users**

The changes in curriculum of most universities to accommodate information technology and change in information format and scholarly communication have brought about changes in users needs and preference. It has become easier to access information without going to the library. Branin, et al. (2002) argue that the technical advances in digitization have revolutionized the way scholarly information is published, organized, and maintained, and both the scope and extent of this change are difficult to comprehend and manage for the collection librarian who now has two formidable information formats to consider – print and digital. In fact it has become necessary more than ever before for librarians to maintain close contact with their users in order to respond effectively to the changing curriculum and their information needs (Jenkins and Morley, 1996).

#### **2.5 Information and Communication Technology in University Libraries**

Heeks (1999) defines information communication technology as electronic means of capturing, processing, storing and communicating information. According to Hamelink (1997), ICT encompasses all those technologies that enable the handling of information and facilitating different forms of communication among human actors, between human beings and electronic systems, and among electronic systems. Chisenga, (2006) defines ICT as diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information, and it encompasses a wide range of

rapidly evolving technologies including telecommunication technologies digital technologies such as computers, information networks and software applications. It is the use of computers to capture, process, and store information and use of transmission media to disseminate the stored information. ICTs came about as a result of the digital convergence of computer technologies, telecommunication technologies, and other media communication technologies.

ICTs have made library work easy to do and less laborious. Many libraries in developed countries are experiencing several opportunities. Chaudhry (1995) notes that computer networks provide a wealth of up to date information resources. He further observes that collection development librarians can access online book catalogs, search national and international databases, access electronic books and journals, communicate with vendors and distributors, collaborate with each other, and easier and quicker document delivery. There is a wealth of information resources available on the internet that can be incorporated into the existing collection.

Many libraries in Africa have adopted ICTs in the provision of information services to the users. University libraries have been leading in the adoption and use of ICT and slowly the use of ICT has spread to other types of libraries. However, there are disparities in the numbers of ICT facilities available and in the levels of ICT usage among the libraries within the same country (Chisenga, 2006). For example ICT adoption and use in private university libraries in Kenya is higher than in the public university libraries (Mutula 2000). The reason given by Mutula for this is because private university libraries

are well funded by their parent organizations which are under pressure from Commission for Higher Education to meet standards and guidelines given by CHE. The standards stipulate that “the library shall adopt and maintain new information communication technologies as they develop and are useful in meeting its goals” (Commission for Higher Education, 2007).

Chisenga (2006) points out major opportunities in collection development presented by ICTs to libraries which are mainly in the following areas: Communication of collection development policies to the stakeholders; efficient management of collection development budget; electronic selection of information resources; online acquisition of information materials; building digital collection; and organization of information materials for use. Boakye (1994) adds that ICTs help make any procedure for selecting, acquiring and processing of information materials easier and quicker. For example when a suggestion is received for a title, catalogues and files need to be checked to find out if that particular title is already in the collection, in processing, or has been placed on order. He further indicates that effective application of ICTs can provide answers to all these queries in a much shorter time than can be done manually.

ICTs have enabled libraries to provide their users with access to networked digital information resources. Resources like online databases, electronic journals, encyclopedias, etc. provided by various publishers or suppliers can now be accessed through the internet. This has made it possible for users to access more information than those actually owned by their libraries. Gessesse (2000) argues that subscription to and

use of electronic journals has appeared as an attractive option for libraries due to escalating costs of print journals. However, the biggest challenges of the networked information resources today are the authenticity and impermanence of these resources; and archiving problems.

Cooperation and resource sharing is not a new thing in libraries. ICTs have made it possible to develop library software systems that are based on international standards and this allows for real-time interactions between these systems. This has made it possible for libraries to share resources in a seamless environment.

Kavulya (2004) argues that despite many opportunities offered by ICTs to libraries, many of university libraries especially in less developed countries and Kenya in particular have not taken advantage of these opportunities. The greatest challenge facing libraries in Kenya today is how to provide increased, effective, efficient and sustainable information services and access to a wide variety of information and knowledge resources on the face of reduced funding. Economic hardship being experienced in the continent is the culprit in all this. The reduced funding has affected the adoption and sustainability of ICT projects in libraries in Africa. Kiondo (2004) observes that investing in ICTs needs adequate financial resources which most African countries lack. She indicates that it is imperative for libraries to consider availability of finances when considering building collections. Most libraries do not have a budget for ICT and those that have are too minimal to sustain any such projects. Furthermore, purchasing license fees for software and electronic information resources requires a lot of money which may not be available



to libraries in these countries. Mutula (2003) indicates that inadequate funds for ICT infrastructure is a major reason why first computers and library systems were donations from external organizations; access to reliable and sustainable internet facilities is still not widespread in libraries; and development of digital libraries and information repositories is yet to take off on a large scale.

Archiving of digital information resources is a major concern and challenge facing librarians today. Kiondo (2004) observes that archiving of e-resources has become a complex issue in libraries today as librarians have considered preservation of cultural and knowledge heritage as one of their prime responsibilities. Her major concern is the fragility and volatility of electronic resources. Kovacs and Elkorby (2000) state that librarians need to take an active role in establishing procedures and policies regarding permanent archiving of electronic files.

Chisenga (2006) advises that for proper utilization and effective use of ICTs, organizations and governments need to put in place policies and guidelines to harness opportunities brought by ICTs. Several countries in Africa have laid down ICT policies and others are in the process of developing their policies. A national ICT policy provides a national framework that facilitates the development, adoption and use of ICTs in a country. Libraries also need to develop their own ICT strategies that define how they are going to use ICTs and as Chisenga indicate; it is no longer acceptable to computerize for the sake of computerization.

The studies above show that there is a lot that has been done on collection development especially in Western countries. However, very few studies have been done on collection development practices in university libraries in Kenya and none of the studies done deal with application of ICT in collection development to enhance the process. In this era of information and communication technology and changing information seeking behaviours and needs of library users, there is need for further studies on how ICTs can be used to effectively meet the users' needs.

## **2.6 Chapter Summary**

The available literature stipulates that collection development is an exciting and challenging activity in academic libraries. Although selecting and acquiring relevant materials for a particular user group is very demanding, slow and labour-intensive, it can be very rewarding if it is done efficiently and effectively. This can be done by first knowing the user groups and their information needs, designing collection development policies that guide the entire process of collection development, using the right selection tools and selection procedures, developing efficient acquisition program, evaluating and weeding the collection periodically.

Use of information Communication Technology in collection development can enhance the process and reduce the challenges caused by traditional collection development practices in libraries. With ICTs, libraries can now communicate collection development policies online to the users and the parent organization. Libraries can also do electronic-based selection and ordering of information materials, offer web-based online public

access catalogue which can help in comparative evaluation of collection, provide access to networked digital information resources by subscribing to online journals, e-books, online databases and other information.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter focuses on the methodological procedures that were used in the study. It deals with the description of the methods applied when carrying out the research. The main items of concern include research design, sample design procedures, data collection instruments, pilot study, data collection procedures, and data analysis techniques.

#### **3.2 Research Design**

This study was conducted through a cross – sectional survey design. The study was concerned with investigating how ICTs can be used to enhance collection development practices of private university libraries with the view of providing a framework for effective collection development. It was specifically intended to investigate the relationship between information and communication technology and collection development process in academic libraries. Such issues are best investigated using a survey design. Survey design enabled the researcher to collect in-depth information on views, opinions, practices, and impact of ICTs on collection development in private university libraries from the respondents. The design generally entailed use of standardized questions to investigate selected study samples to analyze and discover occurrences. Survey design is mainly used to describe a phenomenon but it is also possible to go beyond descriptive to the interpretive, that is, to use survey method to provide explanations of the phenomena studied and the pattern of results obtained (Oso and Onen, 2005).

The general advantages of using survey design are that: it provides a relatively simple and straightforward approach to the study of attitudes, values, beliefs and motives; and the survey design allows a high amount of data standardization. However, the data collected using survey research design may be affected by the characteristics of the respondents (for example their memory, knowledge, experience, motivation, and personality) but these may be insignificant compared to its contribution to this study.

Qualitative and quantitative approaches were also used to collect and analyze data. The reason for using both qualitative and quantitative approaches was to improve the quality of research by ensuring that conclusions arrived at were more likely to be correct and accepted as such. Additionally, by employing the two approaches, the researcher was able to compensate for inherent weaknesses in each approach.

Qualitative approach is a process of enquiry that draws data from the context in which events occur, in an attempt to describe these occurrences, as a means of determining the process in which events are embedded and the perspectives of the respondents, using induction to drive possible explanation based on observed phenomena. The ultimate goal of qualitative research is to understand those being studied from their perspective, from their point of view. Quantitative approach, on the other hand, focuses more on numerical or statistical data. It uses numerical representations to quantify occurrences. Quantitative approach looks for patterns in events, normative behaviour and for causal relationships among variables.

### **3.3 Study Population**

Kenya has twenty private universities that have been authorized by the Commission for Higher Education to offer university degrees either by being given charters, letters of interim authority, or letters of registration. The researcher selected three universities (Strathmore, USIU, and St. Paul's University) out of these twenty private universities. The main reason for selecting the three universities was that all the three were well financed and had better ICT infrastructure compare to other private universities. The other reason was because the three universities have been in operation of a long time. The fact that these three universities were chartered, means that they have already met the standards given by the Commission for Higher Education which requires that all private university libraries must have their operations computerized. The respondents included library staff, Deans of faculties, and post-graduate students of the chartered private universities. The researcher felt that these respondents were well suited for the study and would give in-depth information and provide better and comprehensive information on the phenomenon.

### **3.4 Sampling method**

Non-probability sampling method was used to select the study sample. Non-probability sampling typically involves the researcher using his judgment to achieve a particular purpose. The elements in a study population do not have a known or predetermined chance of being selected as subjects (Kombo and Tromp, 2006). It is used when the focus is on in-depth information.

This sampling method was used because of need for a focus on a useful sample that would give in-depth information about the study.

### **3.5 Sampling technique**

Purposive and convenience sampling techniques were employed to select the study sample. Purposive sampling refers to targeting a group of respondents believed to be reliable or useful for the study (Robson, 2002). It is mainly used to collect focused information from typical and useful cases. In this study, purposive sampling was used to select the universities, the library staff, and the Faculty Deans that the researcher believed were resourceful for the study.

Convenience sampling technique involved selecting cases of study as they became available to the researcher (Mugenda and Mugenda, 2003). This technique was used to sample respondents from the post-graduate study population. The reason why this technique was used for this target group was because most of the students were not easily available and therefore the researcher took advantage of those that were conveniently available to collect data.

### **3.6 Sampling procedure**

Firstly, a purposive sampling technique was used to identify three private universities that are chartered. The selected universities were Strathmore University, United States International University (USIU), and St. Paul's University. The researcher then purposively selected a total of four library staff from each of the three universities. The

selected staff included one University Librarian, two staff from acquisition section (Senior Librarian and a Senior Library Assistant), and one Systems Librarian. In addition, three Deans of faculty were also purposively selected from each university. Then convenient sampling technique was used to select a percentage of the total population of postgraduate students from each of the three selected universities.

### **3.7 Study Sample**

A sample is a smaller group obtained from the accessible study population (Mugenda and Mugenda, 2003). The sample for the study included three chartered private universities. The selected universities were Strathmore University, St. Paul's University, and United States International University.

The main reasons why the three universities were selected was because: they are chartered and therefore have benchmarks given by Commission for Higher Education that are supposed to be met before the universities are granted charter; USIU is well established and has been in operation for sometime now whereas St. Paul's University, though new, has been in operation for longtime as a college. Strathmore University was selected because as an ISO certified university, the researcher felt that it would give a good example of application of ICT in collection development. It was therefore expected that all the three universities would have well equipped libraries that have better structures and facilities. The universities were therefore appropriate for in-depth study of collection development practices.



The respondents for this study consisted of library staff, faculty Deans, and post-graduate students from each university. The library staff included one university librarian, one senior librarian in charge of acquisitions, one senior library assistant from acquisitions section, and one systems librarian from library ICT section. The researcher collected data on policy and budget related issues from the university librarians whereas data on collection development process and procedures was collected from the staff in acquisitions department. Data on ICT issues and application in collection development was collected from the systems librarians. Information on collection quality and issues on selection of information materials was collected from the faculty deans and postgraduate students. A summary of study samples from each university is given in the table below:

**Table 1: Summary of Study Samples**

University	University Librarians	Acquisition Staff	ICT Staff	Deans	Post-Graduates	Total
Strathmore	1	2	1	3	13 (5% of 250)	20
St. Paul's	1	2	1	3	8 (15% of 50)	15
USIU	1	2	1	3	30 (5% of 600)	37
<b>TOTAL STUDY SAMPLE</b>						72

### **3.8 Data Collection Methods**

The methods used to collect data for this study were face-to-face interview method and administration of questionnaires. Administration of questionnaire method was used to collect data from the post-graduate students whereas personal interview method was used to collect data from the library staff and faculty deans.

Administration of questionnaires was used because the respondents were largely literate and it was unlikely to have difficulties when responding to the question; and the information needed was easily described in writing. It was also easier and faster to collect data from the students using questionnaires given the relatively large number of student respondents.

Interview method allowed the researcher to collect data that could not be directly observed. It also allowed the researcher to obtain in-depth information from the respondents.

### **3.9 Data collection techniques**

Face-to-face interview technique and open-ended questionnaires were used to collect data from the respondents. The use of these techniques helped the researcher to collect information within a shorter time and information that is difficult to put down in writing. Questionnaires enabled the researcher to collect information within a shorter time from the students whereas face to face interview enabled the researcher to collect in-depth information from the library staff and the faculty deans.

### **3.9.1 Interview technique**

Interview technique involves the researcher asking questions and, hopefully, receiving answers from the people being interviewed (Chandra, 2004). Interview is a flexible and adaptable way of finding things out. It offers the possibility of modifying one's line of enquiry, following up interesting responses and investigating underlying motives in a way that postal or other self-administered questionnaires cannot. Non-verbal cues may give messages which help in understanding the verbal response. However interview technique requires considerable skill and experience in the interviewer. It is also time consuming.

In this study face-to face interview technique was used to collect data from the university librarians, acquisition staff, systems librarians, and the deans. The reason why this technique was used is that it allowed the researcher to probe for in depth information thus helping to clarify responses and collect useful information for the study from this group.

### **3.9.2 Self-administered Questionnaire**

Questionnaire is a pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives. Questionnaires may be administered personally or sent by mail. The main advantage of questionnaires is that the researcher can collect all the required data within a very short time.

The researcher administered open-ended questionnaires to post-graduate students. This was because the respondents were largely literate and were unlikely to have difficulties

when responding to the questions. It also helped the researcher to collect data within a shorter time given that the student study sample was fairly large. Questionnaires were administered personally to ensure a high response rate.

### **3.10 Data collection instruments**

The researcher used open-ended questionnaires and semi-structured interview schedules as main instruments to collect data. The selection of these instruments was guided by nature of data to be obtained, the time available as well as objectives of the study. The researcher was mainly concerned with the views, opinions, attitudes, processes, and feelings of the respondents. These variables are not easily observable and thus this necessitated use of questionnaires and interviews. The other reason was because the respondents were largely literate and had no difficulty responding to any question. Interview schedules were used in order to allow the researcher to probe for more information and clarify responses.

### **3.11 Data collection procedure**

Data was collected from seventy two respondents who included university librarians, acquisition librarians, systems librarians, deans, and post-graduate students from three selected private universities using semi-structured interview schedules and open-ended questionnaires. The data was collected by the researcher to ensure integrity and a high response rate. However, permission from the selected institutions' managements was sought first after which the respondents were requested to provide appropriate responses to the questions.

### **3.12 Pre-test of data collection instrument**

The purpose of a pre-test exercise was to test reliability and validity of the data collection instruments. Reliability is the extent to which a procedure yields the same answer time after time. In testing reliability, the researcher was interested in knowing if the instrument will bring consistency in the research. Validity is the degree to which the researcher collects data that reflects the true picture of the phenomenon being studied. In measuring the validity, the researcher was testing whether the instruments will collect credible data.

Prior to final data collection, a pilot study was done to test the interview schedules and the questionnaire. It was geared towards establishing whether the questions were clear, appropriate, and if there were other questions that could be asked. It also helped in testing the language and content of the questions, and the length and approach of the interviews. Modifications were then made appropriately on the basis of the findings of the pre-test.

A pre-test checklist in the form of a questionnaire was used. The checklist was aimed at testing the following:

- Any spelling mistakes in the interview schedules and questionnaires.
- Legibility of the font size used.
- Whether the vocabulary used was appropriate for the targeted group of respondents.
- The clarity of the questions.

- The flow and sequence of the questions in the interview schedule and questionnaire.
- The coverage of the objectives of the study.
- Any suggestions for improvement.

10% of the total study sample was used for the pre-test exercise. Mugenda and Mugenda (2003), argue that at least a tenth of the total population is adequate for a pre-test. Purposive sampling technique was used to identify pre-test subjects. The pre-test was done in a neutral location that was not used in the actual field work.

The chosen place for the study was Daystar University and was done by interviewing one university librarian, two acquisition librarians, one ICT librarian, and one dean and administering questionnaire to two students. The responses were then analyzed with the view to improve the reliability and validity of the instruments.

The results of the pre-test exercise were as follows:

- The respondents were asked to identify any word that is misspelled. All the respondents did not identify any misspelled words in the interview schedules and the questionnaire.
- Font size: all the respondents indicated that the font size used was legible enough.
- Vocabulary: One respondent identified a word in the interview schedule that was not appropriate and gave suggestion for a more appropriate word that the researcher adopted.

- Clarity of questions: three respondents identified a couple of questions that were not clear in the interview schedules however none of them offered any suggestion for clearer questions. Nevertheless, the researcher replaced the questions with ones that she felt were clearer.
- Sequence of questions: All the respondents indicated that the sequence of questions was flowing.
- Coverage of the objectives: One respondent indicated that one objective was not covered in the interview schedule. But the reason why it was not covered was because the objective was not related to the area in which he was being interviewed. The rest of the respondents indicated that the objectives were adequately covered in the interview schedules and the questionnaire.

The pre-testing exercise helped in identifying problems in the interview schedules and the questionnaire. The major problem was found with the clarity of the questions in the interview schedule to the faculty deans. Modifications were made appropriately on the basis of the suggestions offered and the findings of the pre-test. These modifications included removal of questions that the researcher felt were redundant and changing the vocabulary.

### **3.13 Data Analysis, Presentation and Interpretation**

Data analysis is the process of bringing order, structure and meaning to the mass of collected data (Gorman and Clayton, 1997). After the required amount of data was received from the field, it was reviewed for any inconsistencies, organized and then

analyzed. Thematic analysis was done. This involved categorizing related data into themes or topics by perusing through the collected data and identifying information that is related to the research questions and the objectives. After categorizing the data, codes were developed based on the collected data then coded materials were placed under the identified themes. After that interpretation of the data was done and a summary report developed identifying the major themes and associations between them. Direct quotations, percentages, and tables were used to present the findings.

### **3.14 Ethical Considerations**

The ethical problem in this study was the confidentiality of respondents and integrity of the findings. Some respondents were not willing to reveal information that was regarded as internal to the organization. To ensure that this did not affect the results of the findings, the researcher ensured information and respondent's confidentiality. When analyzing data the researcher maintained integrity by presenting findings and interpretations honestly and objectively. The researcher also avoided plagiarism by ensuring that any source of information used in the study was adequately acknowledged. Permission was also sought from the three universities to collect data from the staff and the students.

### **3.15 Chapter Summary**

This study was carried out using a survey design. This design enabled the researcher to collect in-depth data on views, opinions, practices, and impact of ICTs on collection development in selected private university libraries. Qualitative and quantitative



approaches were used to analyze data. The study population which included three private universities that are chartered and seventy two respondents, was sampled using non-probability methods. The method of sampling was preferred because of limited population size and a need for in-depth study. Purposive and convenient sampling techniques were employed to select the study sample.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

This chapter describes the results of this study. The data to be analysed was gathered using interviews and questionnaire methods. Interviews were carried out with university librarians, technical services librarians, ICT librarians and faculty deans. Questionnaires were given to post - graduate students of the three selected private universities.

#### 4.2 Response Rate

A total of fifty one questionnaires were sent out to be filled by post-graduate students in the three private universities. Out of these, thirty three were completed and returned to the researcher, thereby giving a response rate of 65%. 10 questionnaires out of 13 questionnaires distributed were returned at Strathmore University, 15 out of 39 questionnaires were returned at USIU, and 8 out of 8 questionnaires were returned at St. Paul's University. The questionnaire response rate for each university is as given in the table 2 below:

**Table 2: Questionnaire response rate**

<b>University</b>	<b>Sample size</b>	<b>No. of questionnaires returned</b>
Strathmore University (SU)	13	10
United States International University (USIU)	30	15
St. Paul's University (SPU)	8	8
<b>Total</b>	51	33 (65%)

The researcher also carried out interviews with the three university librarians, three systems librarians, five staff from the acquisitions department, and seven faculty deans from the three universities. The interviews response rate was as given in the table 3 below:

**Table 3: Interviews Done**

<b>University</b>	<b>Sample size</b>	<b>No. of Interviews done</b>
SU	7	6
USIU	7	6
SPU	7	6
<b>Total</b>	21	18 (86%)

#### **4.3 Respondent Characteristics**

Most of the university librarians had served in their position for a period ranging from two years to ten years with only one university librarian who had served for less than a year. The technical services staff had served in those positions for a period ranging from two years to fifteen years. Two ICT librarians had served in that position for period ranging from five years to fifteen years. One of ICT librarian had served in that position for a period of two years. This therefore means that most of the respondents interviewed were familiar with the collection development practices of their respective libraries. Their responses were summarized in the table 4 below:

**Table 4: Summary of Respondents characteristics**

<b>Respondents</b>	<b>SU</b>	<b>USIU</b>	<b>SPU</b>	<b>Duties performed</b>
University Librarians	Less than a year	10 years	2 years	General administration and management of library resources. Budget allocations
Acquisitions librarians	4 years 2 years	15 years 8years	2 year	Distribution of selection tools, liaising with teaching staff for selection, coordinating selection process with library representatives, selection of information materials, pre-ordering and ordering, receiving shipments, evaluation, weeding
ICT Librarians	5 years	15 years	2 years	Management of library information technology (computers, networks and software)

#### **4.4 Collection development practices used by private university libraries**

Several questions were asked to the respondents to determine collection development practices used by private university libraries. Collection development process involves six components: needs assessment of the community that a library exists to serve; development of acquisition policies; selection process; acquisition process; evaluation of the collection; de-selection. In order to answer the first research question, the collection development practices of the three university libraries under investigation were analysed using these activities.

##### **4.4.1 User needs analysis**

To determine whether private university libraries carry out user needs analysis and methods used to do the analysis, questions were asked to university librarians and two

library staff who work in the technical services section. Respondents from SU and USIU indicated that user needs analysis was done frequently whereas respondents from SPU indicated that user needs analysis has never been done. The reason given by the respondents for not doing user needs analysis was lack of time and staff to do the work. Their responses are summarized in the table 5 below:

**Table 5: Distribution of responses on if User needs analysis is done**

<b>If User Analysis is done</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	6	75
No	2	25
Total	8	100

From table 5 above, 75% of the respondents indicated that user needs analysis was done whereas only 25% of the respondents indicated that user needs analysis was never done.

On the methods used to carry out the analysis, USIU used manual method of distributing and analyzing questionnaires whereas SU had started using electronic user surveys and SPSS program to analyze the results of the survey. Respondents from USIU said that they also relied on the teaching staff to know the needs of their users as the teaching staff were the ones given the responsibility of selecting information materials for the library. The respondents indicated that user surveys are carried out to determine whether their information needs were being met by the library. The respondents from SPU indicated

that user needs analysis has never been done. The percent distribution of responses on methods used in user analysis is summarized in the table 6 below:

**Table 6: Distribution of responses on methods used in user analysis**

<b>Methods used</b>	<b>SU</b>	<b>USIU</b>	<b>SPU</b>	<b>Frequency</b>	<b>Percentage%</b>
Lecturers articulate user needs	✓	✓	✓	5	36
Manual distribution and analysis of questionnaires	✓	✓	x	6	43
Electronic distribution and analysis of questionnaires using Monkey survey & SPSS software	✓	x	x	3	21
<b>Total</b>				14	100

x = no response

From the responses above, the most commonly used method of user needs analysis (43%) is manual distribution of questionnaires to the users and analysis of data to know the information needs of the users in order to develop collections that meet those needs. The use of manual methods in user needs analysis causes inefficiency in collecting and analyzing the data. 36% of the respondents indicated that they rely on the lecturers to know the needs of the users. The problem with this method is that the staff may not be able to articulate accurately all the needs of the users thus developing a collection that may not meet the needs of all the users. 21% indicated that they use electronic methods to distribute and analyze the data collected.

#### 4.4.2 Collection Development Policy (CDP)

Questions to determine availability of collection development policy and if the policy is updated and communicated to the users were asked to the university librarians and technical services librarians of the three universities. The purpose was to determine the practice of the private universities with regard to the availability of the policy and the effectiveness of the policy in guiding the collection development process. All the respondents indicated that a collection development policy was available. Respondents from USIU and Strathmore indicated that their policy is in both print and electronic formats whereas respondents from St. Paul's University indicated that the policy is in print format only. Table 7 below shows the responses from the library staff.

**Table 7: Distribution of responses on whether CDP is available**

<b>If CDP is available</b>	<b>SU</b>	<b>USIU</b>	<b>SPU</b>	<b>No. of responses</b>	<b>Percentage</b>
Yes	✓	✓	✓	8	100
No	x	x	x	0	0
<b>Total</b>				8	100

All the respondents (100%) from the three universities indicated that a Collection development policy was available.

On whether the policies are updated, respondents from SU said that they updated their policy frequently; those in USIU indicated that the policy was updated annually whereas the respondents from SPU indicated that the policy had never been updated. Reasons

given for not updating the policy were lack of staff and time to do it. The implication for not updating the CDP is that effectiveness of the collection in meeting the user needs and efficiency in collection development process may not be achieved. The responses are summarized in the table 8 below:

**Table 8: Distribution of the responses on the frequency of updating the CDP**

<b>Frequency of Updating CDP</b>	<b>SU</b>	<b>USIU</b>	<b>SPU</b>	<b>No. of responses</b>
Annually	x	✓	x	3
Frequently	✓	x	x	3
Not at all	x	x	✓	2
<b>Total</b>				8

x = no response

#### **4.4.2.1 Communication of the policy to the users**

Questions were asked to both the library staff and the deans and post-graduate students on whether the policy is communicated and if they are aware of the contents of their CDP. All the student respondents and deans (100%) of St. Paul's university indicated that the policy was never communicated to them with student respondents and deans of Strathmore university (100%) indicating that the policy was communicated to them through the university intranet. This was supported by the faculty deans from the same university who said that they were aware of the contents of their Collection Development Policy. The student respondents (84%) from USIU said that they were not aware of the



content of the Collection Development Policy with the deans (16%) indicating that they are aware of particular aspects of the policy. The responses are summarized in table 9 below:

**Table 9: Distribution of responses on whether CDP is communicated to the users**

<b>If CDP is communicated</b>	<b>No. of responses</b>	<b>Percentage%</b>
Yes	16	36
No	28	64
Total	44	100

From the findings a majority of respondents (64%) indicated that the collection development policy was not communicated to them. This percentage shows that most university libraries do not communicate their collection development policies to the users despite the fact that most of these policies are both in print and electronic format. This also means that the teaching staff who are also involved in selection of information materials are not aware of what their CDP demands and thus this may affect the quality of the collection.

#### **4.4.3 Collection Development Budget**

Collection development budget and management of the budget determines the kind of collection available in any university library. A question was asked to the university librarians on the availability and management of collection development budget in their universities. The purpose was to determine the relation between the allocated budgets and the application of ICT in collection development. SU and USIU indicated that the budget

was sufficient for acquisition of books and other information materials whereas respondents from SPU indicated that the annual budget allocated for collection development was very minimal to support effective collection development. However, all the librarians indicated that the allocated budget was not enough to support sufficient development of electronic resources especially the electronic books. It can therefore be said that budgetary constraint is the main reason why private university libraries have a small percentage of electronic collection compared to the print collection. All the respondents from the three universities indicated that access to electronic journals is through a consortium of Universities and Research Libraries in Kenya. It can also be said that all these universities prefer subscribing to online resources through a consortium because it is believed to be cheaper and cost effective. Budget allocation for all the universities was given as in table 10 below:

**Table 10: Book budget allocations of the three university libraries (2009/10 academic year)**

<b>University</b>	<b>Budget Amount (Kshs.)</b>
SU	40,000,000
USIU	30,000,000
SPU	5,000,000

Management of the budget and the record in all the three universities was done through the library integrated system. Respondents from the three universities said they had automated library systems that have acquisition modules that help in management of the

acquisition records and the budget. SU and SPU used KOHA library management system whereas USIU used UNICORN library system.

#### 4.4.4 Selection process

To determine the selection process in private university libraries, questions were asked to the technical services librarian and the deans of the three universities. Respondents from SU and SPU indicated that selection of information materials was done by the teaching staff with the library staff in acquisition section given the responsibility of selecting books on general readership and reference books and coordinating the selection process with the help of library representatives selected from the teaching staff. The acquisition librarians from the two universities were also given the responsibility of distributing the selection tools to the teaching staff. Respondents from USIU indicated that selection of books and other information materials was done by the acquisition librarian in collaboration with the teaching staff. There responses are summarized in table 11 below:

**Table 11: Distribution of the responses on the selection process**

Selection Method used	SU	USIU	SPU	No. of Responses	Percentage
Selection done by teaching staff through library representatives	✓	✓	✓	12	67
Selection done by library staff in collaboration with teaching staff	x	✓	x	6	33
Selection done by subject librarians only	x	x	x	0	0
<b>Total</b>				18	100

x = no response

The table above shows that 67% of the respondents indicated that selection of information materials was done by the teaching staff with only 33% indicating that selection was done by the library staff. This means that selection of information materials in private university libraries is to a large extent done by the teaching staff and that is why the teaching staff needs to know the content of the collection development policies for effective collection development.

#### **4.4.4.1 Selection tools used**

All the respondents from the three universities said that electronic and printed selection tools are used to select relevant information materials. The most commonly used selection tools mentioned were:

- Printed publishers' catalogues
- Online publishers' catalogues
- Book lists
- Books reviews from magazines and newspapers
- CD-ROM Databases
- Online sites e.g. Amazon, BookFinder, BestBookBuys
- Book displays
- User suggestions through the library system

However, 25% of respondents indicated that the most popular form of selection tool was printed publishers' catalogues, printed book lists, and the Amazon site. They also indicated that the selection tools were easily accessible. Their responses are shown in the table 12 below:

**Table 12: Distribution of responses on selection tools used**

Selection tools used	SU	USIU	SPU	No. of Responses	Percentages (%)
Print Publishers' catalogues,	✓	✓	✓	14	25
Printed book list	✓	✓	✓	14	25
book displays			✓	4	7
Internet online sites (e. g. Amazon)	✓	✓	✓	14	25
Book reviews	x	✓	x	4	7
CD-ROM database	x	✓	x	2	4
Suggestions through library system	✓	x	✓	4	7
<b>Total</b>				56	100

x = no response

The data above shows that 25% of the respondents indicated that they use print publishers' catalogues, printed booklist, and internet sites. Only 7% of the respondents indicated that they used book displays, book reviews (print & online), and suggestions through library system. 4% indicated that they use CD-ROM databases. This can be interpreted that manual selection tools are more commonly used than electronic selection tools in private university libraries. The reason for this can be attributed to preference for print selection tools by the teaching staff.

#### 4.4.4.2 Communication of the selections

To determine how the selections done are communicated, questions were asked to the acquisition librarians of the three universities. All the respondents from the three universities indicated that several methods are used to communicate the selections: office visits by the teaching staff; through e-mail; and manually through library representatives. All the university libraries under investigation used e-mails and office visits by the teaching staff as a way of communicating the selection whereas in SU and SPU, communication was done through library representatives who forward the selections to the library. Three respondents from SU and SPU also indicated using integrated library system's Online Public Access Catalogue (OPAC) to communicate purchase suggestions. The responses are summarized in the table 13 below:

**Table 13: Distribution of responses on methods used in communicating selections**

<b>Communication methods used</b>	<b>SU</b>	<b>USIU</b>	<b>SPU</b>	<b>Frequency</b>	<b>Percentage %</b>
Office visits by lecturers	✓	✓	x	4	23
e-mails	✓	✓	✓	5	29
Through library reps	✓	x	✓	3	18
Through library OPAC	✓	x	✓	3	18
Word of mouth	x	x	✓	1	6
Through printed requisition forms	x	x	✓	1	6
<b>Total</b>				17	100

x = no response

From the data above it is clear that the most commonly used method of communicating selections for purchase is office visits by the lecturers ( 23%) and use of e-mails (29%) followed by the use of library representatives and through the integrated library system (18%). This shows that methods used in communicating selections by the teaching staff in private university libraries are both manual and electronic.

#### **4.4.5 Acquisition Process**

ICT is used in pre-ordering, ordering and post-ordering process. All the respondents from the three universities cited the use of OPAC and online sites (like Amazon) in bibliographic searching of the selected information materials. The searching process involved checking the existence of a particular item and whether the library needed to order the item. The respondents indicated that this process involved use of the Online Public Access Catalogue of the library system and the online sites to identify the correct author, title, publisher, and other necessary ordering details and to determine if the library needed to buy a particular item.

The respondents from all the three universities said that when ordering the materials, orders were typed into a spreadsheet or word document and then sent to the vendors to supply through the e-mail system. The records of orders were then kept in the library system for purposes of receiving and monitoring the orders.

Though ICT was used in acquisition especially in typing and sending orders to vendors, some activities of acquisition process were done manually. Three respondents from SU

and SPU indicated that they use the acquisitions module of the library system to keep a record of what has been ordered and help in monitoring budget allocations and expenditure. Respondents from USIU did not indicate whether this is also done. The reason given from this was because the system was still new and the respondents were not very familiar with all the modules of the system.

#### **4.4.6 Evaluation process**

To determine the methods used in evaluation of the collection, questions were asked to the technical services librarians. The acquisition librarians at Strathmore University cited the use of user surveys and log analysis to analyze the usage of electronic resources. In carrying out user surveys, Monkey Survey program was used to design the questionnaires and distribute them electronically to the users. Log analysis is a monthly report generated by publishers of electronic resources on the usage statistics of electronic resources. The process of evaluation through user surveys was done continuously.

In USIU, evaluation was done at the selection stage; that is by selecting appropriate and relevant resources thus ensuring a collection that was relevant to the needs of the library patrons. The respondents from USIU also said that they occasionally evaluated the collection efficiency using the user surveys carried out annually. The user surveys were done manually.



At St. Paul's, the University librarian and acquisitions librarian indicated that there has never been any form of evaluation that had been done to determine the effectiveness and efficiency of collection development process. The responses are summarized in the table 14 below:

**Table 14: Distribution of responses on whether evaluation is done**

If Evaluation is Done	SU	USIU	SPU	No. of responses	Percentage
Yes	✓	✓		6	67
No	x	x	✓	3	33
<b>Total</b>				9	100

x = no response

From the data above, 67% of the respondents indicated that they do collection evaluation whereas 33% of the respondents indicated that evaluation is not done.

**Table 15: Distribution of responses on the evaluation methods used**

Methods used	No. of responses	Percentage
User surveys using Money survey and SPSS programs	3	25
Manual user surveys to determine if collection meets user needs	6	50
Use of log analysis & usage statistics to evaluate electronic collection	3	25
<b>Total</b>	12	100

As shown in Table 15 above, only 25% of the respondents from the three universities indicated that they used online survey and log analysis to evaluate the collection. 50% of the respondents said that they used manual user surveys to evaluate the effectiveness of

their collection. This therefore means that the most commonly used method of collection evaluation is manual user surveys.

It can therefore be said that though a larger percentage of private university libraries (67%) do collection evaluation, the process is not done frequently and the methods used are mainly manual (50%). From the methods used in evaluation of the collection, it can also be said that private university libraries use user-based methods to evaluate the collections as opposed to use of collection-based methods. Use of collection-based methods in evaluation helps identify clearly the gaps, weaknesses and strength in the collection whereas the user-based methods of evaluation are more prone to user bias and attitude towards the collection.

#### **4.4.7 Weeding process**

On whether weeding of information resources was done, the acquisition librarian at Strathmore University indicated that it was done continuously. The respondents also said that the process was done both manually and electronically. Electronically, the integrated library system was used to generate usage statistics that helped them to determine which books were heavily used and those that had never been used or no longer in use.

The technical services librarian at SPU indicated that weeding in the library was done once and it was done manually by checking the date slip of each book to determine frequency of use and manually removing the books from the shelves.

The respondent from USIU said that weeding was done occasionally and especially to weed out the textbooks that were no longer in use. The process was done manually.

**Table 16: Distribution of responses on methods used in weeding**

<b>Methods used</b>	<b>Frequency</b>	<b>Percentage</b>
Use of library system to generate usage statistics	2	20
Checking of date slips for usage	4	40
Manual removal of textbooks no longer in use	4	40
<b>Total</b>	10	100

The table 16 above shows that only 20% of the respondents indicated that they use library system to generate usage statistics for weeding whereas 40% said that they used manual methods to determine which materials should be removed from the collection. It can also be said that though weeding is an important process in ensuring that the collection is up-to-date and it meets the needs of its constituents, the libraries under investigation do not weed their collection frequently as required.

The overall interpretation of the above analysis is that the three private university libraries under investigation use the traditional collection development practices. Though the libraries have tried to automate activities in collection development, some of the activities are still done manually and other activities are neglected.

#### **4.5 Challenges and constraints faced by Private University Libraries in collection development**

To determine if collection development practices carried out by private university libraries are an impediment to efficient and effective collection development process, questions were asked to university librarians and technical services libraries about the challenges and constraints that are faced during collection development process. The responses given by the respondents are given below:

- Slowness in selection process due to the human factor. Since all universities libraries used teaching staff to select information materials, there was usually a delay in selecting and communicating the selection and this slowed down the process
- Internet connectivity. Respondents from all the universities indicated slow internet speed and frequent disconnection of the internet thus disrupting the collection development process
- Use of printed selection tools caused delay in selection. All respondents from the three universities indicated that printed catalogues and book list slowed down the selection process in that they could only be used by one person at a time. All the acquisitions librarians said that when using printed publishers' catalogues, one had to keep on reminding the teaching staff to do the selection and forward the catalogues to the next person. This caused delay and waste of time on the part of the library staff. Respondents from SPU also indicated that the teaching staff did not always comply with the deadline given for the selection.
- Online ordering requires prepayment which is usually against the policy of most private universities under investigation. Respondents indicated that ordering

information materials online required prepayment before the orders were processed and delivered. The main problem indicated by the respondent with this arrangement is that it is against the collection development policy of the universities and delivery of all the items paid for was not always guaranteed.

- Slowness in delivery of the orders. All the respondents indicated that there was usually a delay in delivery of ordered items by the suppliers.
- Some books listed online may not be available some of them may be out of print while others may not yet be available in the marketplace.
- Lack of cooperation by the teaching staff in selection. The fact that one has to keep on reminding the teaching staff and coordinating with them to make sure that selection is done caused delays in selection
- Lack of cooperation by the suppliers when sourcing for quotations
- Lack of enough staff given the intensity of the work. All the respondents indicated that there was lack of enough staff to carryout collection development process. SU and SPU had only one person doing acquisition whereas USIU had two people doing acquisitions. The main problem with lack of staff is that some activities like collection evaluation and weeding in collection development process were often neglected.
- Budgetary constraints that limits development of both print and electronic resources was also cited by all the respondents from the three universities.

#### **4.6 The extent of application of ICTs in collection development**

To answer the research question on the extent of application of ICTs in collection development, appropriate questions were asked to the acquisitions and ICT librarians in the three universities. The purpose was to find out the activities that the libraries have successfully applied ICTs and the reasons why ICTs have not been applied in other activities of collection development. From the responses, the researcher established that all the libraries used Information Communication Technology (ICT) in collection development in various ways such as: ICTs were used in selection of information resources by use of online sites like Amazon, publishers' online catalogues, CD-ROM databases, and online book reviews; ICT was also used in communicating selections by the teaching staff; All respondents from the three universities indicated that the selections by the teaching staff were sent to the acquisition librarian through e-mail; SU and SPU used the library system to communicate purchase suggestions to the acquisition librarians. Respondents from SU indicated that ICT was used in user needs analysis especially when doing users surveys and checking usage statistics of both print and electronic resources.

In acquisitions, ICT was used in pre-ordering and ordering process. All respondents from the three universities indicated that after the selections were done, they used the library system and the online sites (like Amazon) to verify the bibliographic details of the selected titles and to check if copies of the selected titles were already available in the library. This helped in making sure that the right copies and titles were ordered. When

ordering, lists of the selection was typed and sent to the suppliers for quotation through e-mails.

ICTs were also used in bibliographic description of the records in the three universities under investigations. All the libraries had automated library systems that had all the modules including acquisitions, serial management and cataloguing. SPU and SU used KOHA Library Management system whereas USIU used UNICORN library system. All respondents from the three universities indicated that the library systems used were effective.

Respondents from SU indicated that ICTs were used in evaluation of print and electronic information resources. This was done using electronic usage statistics done internally and externally by the publishers of electronic databases for evaluation of electronic resources and usage statistics generated by the library system for evaluation and weeding of print resources.

All respondents from the three universities indicated that they subscribed to electronic journals and databases through the consortium of university and research libraries called Kenya Library and Information Service Consortium (KLISC). However they indicated that they did not subscribe to electronic books due the high costs of subscription.

It was also clear that all the university libraries had internet. Respondents from SU and USIU indicated that the computers available in the library were sufficient though the

speed of the internet was not enough whereas respondents from SPU said that the computers available for use were not sufficient and the internet was too slow. The students' respondents from the three universities indicated that they had e-mail addresses. However students from SPU indicated that the library did not use their e-mails to communicate to them whereas students from SU and USIU indicated that the library used e-mails to communicate with them.

On the challenges faced by private university libraries in application of ICT, the respondents gave several challenges that impeded successful application of ICT in collection development activities. All respondents cited slow internet speed as one of the major challenges in application of ICT in collection development. Slow speed hampered faster downloading of publishers' catalogues and book reviews. It also slowed down access to online information resources like e-journals, e-books and databases.

Lack of cooperation by teaching staff was also mentioned as another challenge faced by libraries in application of ICT in collection development. Respondents from the three universities indicated that the teaching staff were reluctant to use online selection tools (for example online publishers' catalogues) when selecting books. In fact respondents from SPU indicated that most of them (teaching staff) preferred printed catalogues to online catalogues.



Respondents from SPU mentioned that lack of online selection tools for local publishers and suppliers has been a challenge in application of ICT. For books published or available locally, one had to move from one bookshop to another to establish if they were available.

Preference for manual signatures on quotations and invoices by the accounts department and management was also one of the challenges mentioned by the respondents in USIU. The acquisitions librarian at USIU said that acceptance of ICT and electronic documents by USIU has been very slow. For example an invoice sent through e-mail was not acceptable for payment because it was not signed.

All respondents from the three universities indicated that the issue of electronic information resources had brought with it some challenges. Firstly, subscription to electronic information resources (like e-journals) required that the ownership of the e-resources remain with the publishers and that the subscription is renewed every year failure to which the access is denied. Paying for yearly subscription to these resources is expensive. That is why the three universities under investigation were not able to subscribe to these resources individually. Secondly, subscription of electronic databases did not guarantee access to all its content. In fact one of the respondents from SU indicated that some publishers locked or denied access to some articles in journals.

Preference of print resources to electronic resources by the teaching staff was cited as another challenge in applying ICT in collection development. One of the respondents

from SU said that “lecturers prefer print information to electronic information because they consider it easier to read and understand”

Lack of enough materials funds for sufficient collection of electronic information resources and subscription to electronic selection tools (databases) was also cited as an impediment in application of ICTs in collection development. All respondents from the three universities indicated that the materials budget allocated was just enough for buying print materials and subscription to electronic resources through the consortium. Respondents from SPU indicated that the budget allocated was not enough for them to even start thinking of institutional subscription to journals and electronic books.

From the above analysis, it is clear that the three private university libraries applied ICTs in various collection development processes though the extent of application was not to a sufficient level. Several challenges were mentioned by the respondent from the three universities that impeded application of ICTs in collection development practices in these libraries.

#### **4.7 Development of electronic resources in private university libraries**

In order to determine the extent of development of electronic information resources in private university libraries, questions were asked to the acquisitions librarians of the three universities. The respondents were also asked to state the challenges that they faced in development of electronic information resources. The purpose was to find out the factors that impede development of electronic collection in the three private universities.

On the extent of development of electronic resources, all the acquisitions librarians in the three universities indicated that most (95%) of the collection in the libraries is print with inadequate (15%) collection of electronic information materials. Electronic collection development in all the libraries under investigation was done through the KLISC which negotiated with International Network for the Availability of Scientific Publications (INASP) for low cost electronic information subscriptions. Their responses are summarized in the Table 17 below:

**Table 17: Print vs. electronic collection in private university libraries**

<b>UNIVERSITY</b>	<b>PRINT COLLECTION (%)</b>	<b>ELECTRONIC COLLECTION (%)</b>
<b>USIU</b>	90	10
<b>St. Paul's</b>	95	5
<b>Strathmore</b>	80	20

All the acquisitions librarians from the three universities indicated that they got free electronic books from the internet. It was also clear that the cost of subscribing to e-books was beyond reach by all the universities. The teaching staff and the students from all the universities indicated that the electronic resources were easily accessible.

The advantages of electronic resources compared to print resources given by all the respondents were that: they could be accessed anywhere and at anytime; and they could be accessed by many people at the same time. The limitations given were that: they were expensive to acquire in terms of hardware and subscriptions; for effective access,

electronic resources required faster internet speed; and some publishers of electronic journals allowed only limited access thus users could not access the entire content of the databases.

Although all the respondents agreed that the benefits of electronic collection outweighed the benefits of print collection, private university library collections were largely in print format. This can be attributed to the high costs of buying and subscribing to electronic resources and complexity in management of the resources coupled with low levels of budgets allocations.

On challenges faced by private university libraries in the development of electronic resources, all the respondents in the three universities cited similar challenges. High cost of subscription was a major challenge cited as an impediment in acquisition of electronic resources. Respondents from SPU cited lack of funds to develop sufficient electronic resources. Restrictions by the publishers of electronic resources were also given as a challenge that the three universities were facing. With most of the universities starting evening and off-campus study programs, another challenge that private universities were facing in development and access to electronic resources was non-availability of the resources to the users of these off-campus and evening students and restriction of available resources to access within the campuses using IP addresses.

#### **4.8 Library patrons' satisfaction with the collection**

To determine whether collection development practices in Private University libraries have created a collection that satisfies patrons' needs, questions were asked to the post-graduate students from the three universities. Post-graduate students from SU and USIU indicated that they were satisfied with the collection in their libraries whereas post-graduate students from SPU indicated that although they were satisfied with the collection in their library, some improvement needed to be done. They indicated that: more relevant information resources needed to be acquired; some information materials in the library were not current; that there was need for additional copies of the core texts; and some subject areas lacked appropriate information resources. From the data collected, it can therefore be said that most students in private university libraries are satisfied with the information collection in their libraries though specific improvements to the collections needed to be done.

However, several challenges were cited by the student respondents in relations to the access and use of information materials in the libraries. Most Students from SPU and SU indicated that they were not able to access electronic resources while outside the campuses. This limited the access of electronic resources to within the university only. Other students from the same universities complained of not having any knowledge of what is available or not available. This was supported by the deans from SU and SPU who indicated that they are never involved in selecting electronic information resources and therefore are not fully aware of how relevant the selected resources are. Other

respondents, especially from SPU indicated that there were inadequate electronic information materials in the library.

#### **4.9 Technology infrastructure to support collection development activities in private university libraries**

To determine if private university libraries have sufficient technology infrastructure to support collection development, questions were asked to the ICT librarian of the three universities and the post-graduate students. All the ICT librarians from the three universities indicated that: there were computers available in the library; that there was internet and standby generators incase of power outages; and that their libraries had automated library systems that supported the operations of the library. Two respondents from SU and SPU indicated that their libraries use KOHA library management system whereas respondent from USIU indicated that the library used UNICORN library management system. On availability of sufficient computers to support collection development, all the ICT librarians indicated that computers that were available were sufficient in supporting collection development activities. However, one ICT librarian from SPU indicated that there was need for more computers. He also indicated that there was need for a computer laboratory in the library where the users can access the electronic information resources.

#### **4.10 How ICTs can be used to enhance collection development practices in private university libraries**

To determine ways in which ICTs can be used to enhance collection development practices in private universities, questions on how ICTs have positively and negatively affected collection development were asked to acquisitions and ICT librarians. All the respondents indicated that ICTs have enhanced collection development and made the process more efficient and effective. Communication with the teaching staff and the suppliers was easier and faster than before. Other respondents from all the universities said that it was now easier to select quality information resources from the online catalogues and online book vending sites like amazon.com; it was possible to order books online and have them delivered within a shorter time. It was also possible to know the availability of an information material, books in print and out of print, and books not yet published within a short time; and verify the bibliographic details of the selected information materials online using online sites and the library OPAC.

Some respondents from the three universities indicated that ICT has made it possible to know usage statistics of information materials and thus it is easier to know which materials are frequently used and those that are not used thus it helps in evaluation of information resource. With the automated usage statistics, it has also become easier to know which materials should be withdrawn from the shelves.

Respondents were also asked to state how ICTs had improved collection development process in their libraries. Several responses were given by all respondents:

- That ICT has helped in automation of repetitive tasks in collection development practice. This has improved efficiency and quality of service.
- The use of automated information systems that have circulation, serials and acquisitions modules has improved auditing of acquisition records and thus increased accountability.
- ICT has reduced demand for more staff thus reducing labour. This is because work that was being done by many people can now be done by fewer people.
- It is now faster to communicate with suppliers and publishers through e-mails.
- It is easier and faster to evaluate a collection using circulation statistics, electronic user survey and log analysis to identify the gaps, user needs and whether the needs are being met. This has helped to improve the quality of the collection.
- Use of ICTs has enabled sharing of bibliographic records with suppliers and other libraries (through the web OPAC) thus eliminating duplication of records and efficient evaluation of the collection on the basis of another library's collection.

The respondents gave several responses on how ICTs can be used to enhance collection development process in private university libraries:

- ICT can be used to enable easier communication of Collection Development Policy to the stakeholders



- With ICT it is possible to carry out online user surveys to analyze the needs of the users and evaluate the collection. Online surveys are faster and more effective to administer
- ICTs have made it possible to select information materials online using online sites and electronic publishers' catalogues. This makes selection of books more effective and efficient. The online sites help in rating the quality of books thus help in selecting the best in the market
- It was now possible to order information materials online and using e-mail system which is faster and more effective than the ordinary mail system. ICTs also enable effective and faster payment of orders supplied.
- ICT enables librarians to identify items that should be removed from the collection. It also helps in evaluation of the entire collection to identify gaps in the collection and the effectiveness of the selection by the teaching staff.
- ICTs have improved quality of services because much more is done within a shorter time and by less people thus improving the turn around time taken in collection development
- ICTs had enabled Synchronization of the entire process of collection development from user needs analysis to evaluation and weeding of the collection
- The improvement of collection development activities had led to the enhancement of patrons' services
- ICT have enabled automation of repetitive tasks and improved auditing and accountability

Overall, ICTs have improved efficiency and quality of service in the library and especially the entire process of collection development.

#### **4.11 Chapter Summary**

From the data collected all the university libraries under investigation practice traditional collection development process. All the universities indicated that they use ICTs in one way or the other in ensuring efficiency in collection development. However several challenges were mentioned that impede effective application of ICTs in collection development in these university libraries. Among the challenges mentioned by the respondents included: budgetary constraints, Low internet speed, lack of cooperation by the teaching staff, e,t.c.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

The rampant changes in information formats coupled with changing user information needs have necessitated change in the way academic libraries build and manage their collections. Libraries are now required to embrace these changes and manage the collection in the best way that satisfies the users that they serve. This research sought to find out the extent to which selected private university libraries have applied ICTs in order to build and manage collections that meet the changing needs of their users.

#### **5.2 Summary of Key Findings**

All the three university libraries practiced the traditional way of collection development which involved: the assessment of user needs; setting a side of collection development budget on a yearly basis; development of a collection development policy that is used to guide the collection development activities; selection of relevant information resources which is mainly done by the teaching staff in collaboration with the acquisitions librarian; acquisition process; evaluation of the collection; and the weeding process. From the data collection, the implication is that all the private university libraries averagely use ICTs in carrying out these activities.

Several challenges experienced in collection development were mentioned by the respondents. Slowness in selection process due to the human factor was mentioned as a

major challenge in collection development. Since all universities libraries use teaching staff for selection of information materials, there is usually a delay in selecting and communicating the selection and this slows down the process. Besides most of the teaching staff preferred printed selection tools because they are allegedly easier to use. The implication is that selection process took longer than when electronic selection tools were used.

Slow internet speed and frequent disconnection of the internet was also mentioned as an impediment in effective application of ICTs to collection development activities. The speed of the internet determined the download speed of online catalogues and communication between the library and the vendors.

Respondents indicated that ordering information materials online required prepayment before the orders are processed and delivered. The main problem indicated by the respondent with this arrangement is that it is against the collection development policy of the universities and delivery of all the items paid for was not always guaranteed. Furthermore, the respondents indicated that there was slowness in delivery of the orders by the suppliers.

Lack of enough staff given the intensity of the work was also mentioned as a challenge that these libraries are facing. All the respondents indicated that there was lack of enough staff to carryout collection development process. Two universities had only one person doing acquisition whereas one university had two people doing acquisitions. The main

problem with lack of enough staff is that some activities like collection evaluation and weeding in collection development process were often neglected.

All the respondents admitted that application of ICT in collection development has helped in making the collection development process more efficient and effective in meeting the needs of the library users. It was clear that most of the private university libraries were using ICT in various activities in collection development which had created some efficiency and led to users' satisfaction. However, the level of application of ICTs was not to a desirable level.

All the librarians indicated that there were computers, internet and integrated library systems available in their libraries. Two of the respondents indicated that their libraries use Koha library management system whereas one of the respondent indicated that the library use Unicorn library management system. The availability of the computers, internet and a library system enabled application of ICT in collection development in these libraries.

All the respondents indicated that there has been slow development of electronic collection. Budgetary constraints and high cost of subscription were mentioned as the cause of slow development of electronic collection in these libraries. More than 80 percent of the collection in private university libraries was in print format with all the libraries subscribing to electronic resources (mainly e-journals) through consortium arrangements. The respondents indicated that the high cost of subscription and buying of

electronic resources was a major challenge that impedes acquisition and development of these resources in private university libraries.

### **5.3 Conclusion**

The process of collection development has become very complex. This complexity has been brought about by the technological changes, multiplicity of document formats and diversified and changing user information needs as well as financial constraints being faced by academic libraries. As the saying goes “one can only fight fire with fire” private university libraries need to apply and fully utilize Information Communication Technologies in collection development activities in order to meet these changing user information needs and effectively use the available funds. The three private university libraries still practice the traditional collection development process though efforts have been made to apply ICTs in different activities of collection development such as use of online survey in users’ needs analysis, use of online selection tools, use of e-mails to communicate with the teaching staff and the suppliers, e.t.c. The efforts in application of ICTs in Collection development needs to be stepped up in that ICTs need to be applied in all the activities of collection development to ensure complete efficiency and effectiveness and add value to information resources so that they can be used more effectively by the users.

The respondents mentioned several challenges and constraints that impeded the application of ICTs in collection development practices such as budgetary constraints, slow internet speed, lack of cooperation by the teaching staff who are given the responsibility of selecting information resources.

#### **5.4 Recommendation**

Although ICTs are commonly available in the three private university libraries under investigation, the desired impact and application in collection development practice can only be felt when they are fully applied to all the activities of collection development. The researcher recommends the following framework for application of ICTs in private university libraries to enhance collection development activities and satisfy library patrons in private universities in Kenya:

##### **5.4.1 Use of ICT in user needs assessment**

There is need to continuously ascertain and anticipate future needs of the users. Private university libraries need to employ technological methods such as online user surveys, statistical and usage data of electronic resources to find out if there is information that is routinely sought out by the users and users' attitude and perceptions of the collection. Additionally, the web 2.0 technologies and social networks (blogs, wikis, RSS feeds, twitter and facebook) provide a perfect technological method of communication between the library and its users. Such methods should be used in marketing the library, its collection, and most importantly to assess the perception of the users towards the library collection.

#### **5.4.2 Use of ICT in Planning, Policy, and Fiscal Management**

The budgetary constraints faced by private university libraries and the demand for accountability by the administration calls for an efficient and effective use of financial resources available. It has become important to ensure that the funds allocated are spread fairly not only between departments but also between types of resources. There is need therefore for use of an automated system to manage and control the available financial resources.

Building collections effectively and efficiently in academic libraries requires an up-to-date collection development policy. The components of the policy should also be communicated to the users and particularly the people involved in different aspects of collection development. An electronic collection development policy would be easier to communicate either through the library website or the institution's intranet. Private university libraries should use their institutions' intranet to communicate collection development policies to the teaching staff and other users.

While a collection development policy is a formal and official document, it is also a living document. It should not be created and then forgotten. It should serve as the plan for developing and managing a collection. It should be consulted regularly, reviewed and revised frequently. An electronic policy document would be easier to refer to and revise regularly.



### **5.4.3 Use of ICT in Selection and acquisition of information materials**

From the findings of this research, it is a common practice of private university libraries to rely on teaching staff wholly or partially for recommendations for book purchases. The major problem with this arrangement as the researcher found out is that there is reluctance by the teaching staff to make selection which causes delays in selection and acquisition. Use of various electronic selection tools not only simplify selection but also increases recommendations by the teaching staff. Use of online networks such as internet and intranet to expedite book selection and ordering should be emphasized. Online publishers' catalogues, CD-ROM databases, online book reviews, online sites, and online alert services provides updated information and more details of an item – information that would be useful in knowing which items to select. Online shopping for locally available information materials and those that are acquired from overseas countries is a concept that acquisition librarians should try for faster and efficient ordering of information materials.

### **5.4.4 Use of ICTs in collection evaluation and weeding**

It is important to continuously carry out collection evaluation for a balanced and relevant collection. Librarians in private university libraries need to know the desired levels of their collection. Use of usage statistics generated by the integrated library systems, computerized data on annual expenditure, computer generated acquisition reports, and online user surveys are valid, efficient and effective tools of examining the state of a collection. Such tools should be used often to evaluate the collection and the collection development process. Transaction log analysis of electronic resources should be used to

evaluate electronic journals and databases so as to know which ones are being used and the ones that are not being used. This information can also be used to weed out the materials that are not being used, or are superseded.

#### **5.4.5 Use of ICTs in electronic collection development**

Due to changing information formats and user preference for electronic resources, private university libraries need to put more emphasis on electronic information collection. Currently, all the libraries that were under investigation indicated that more than 80% of their collection is in print format. Libraries should seek to build a collection that is either hybrid (50% print and 50% electronic) or one that is more electronic-based than print-based. Besides subscribing to e-journals, private university libraries should build a collection of e-books, books in kindle format and other digital resources. Building of sufficient electronic resources will also ensure that off-campus users have remote access to library information resources.

To support efficient collection of electronic information resources, private university libraries need ensure that the speed of the computers and the internet is higher. To do this the libraries can adopt the use of fibre optic instead of the current technology that is in use.

#### **5.4.6 Use of ICTs in cooperative collection development**

ICTs can be used to overcome the budgetary constraints by adopting cooperative collection development whereby private university libraries agree to enter into agreement with one another regarding collection development. Each library agrees to concentrate collection development to specified subject fields and then borrow from each other. Use of online catalogues to search the database of member library can enable each library to know what the other library has in its collection. This agreement can also be extended to electronic resources and access provided using remote access and electronic document delivery among the member libraries.

With the changing information environment and user preference, private university libraries should provide quality resources and in different formats as efficiently and effectively as possible and the best way to do this is to apply ICTs in all the activities of collection development.

#### **5.5 Suggestions for further research**

This study was mainly concerned with the application of ICT to enhance collection development process using case of three selected private university libraries. There is need for further study on adoption of positive attitude and favourable policies and programs in maximally harnessing the benefits of ICTs in collection development and management. Such study should involve more than three cases in order to know the

current status and efforts being made by all the university libraries in Kenya. This study can also be replicated in public university libraries.

## REFERENCES

- Agee, J. (2005). "Collection evaluation: a foundation for collection Development". *Collection Building*, 24(3): 92-95
- Ajayi, G.O. (2002). "Information age virtual technology – opportunities and challenges to Africa", paper presented at: UNESCO National Workshop on the Pilot Virtual University Laboratory Project, the Obafemi Awolowo University, Ile-Ife A, 9-12 September
- Allen, B.M. (1994). "Theoretical value of conspectus-based (cooperative) collection management". *Collection Building*, 13(2/3): 7-10
- American Library Association (1989). *Guide for writing collection policy statements*. Chicago: American Library Association
- Andrade, D. and Verguero, W. (1996). "Collection development in academic libraries: a Brazilian library's experience". *New Library World*, 97(4) : 15-24
- Boakye, G. (1994) "The academic libraries of developing countries: towards effective book provision in the face of austerity". *New Library World*, 95(1116) : 12-17
- Bonn, G. S. (1974). "Evaluation of the collection". *Library Trends*, 22(3) : 265-304
- Branin, J., Groen, F. and Thorin, S. (2002). The changing nature of collection management in research libraries. Available online: [www.arl.org/bm~doc/changing-nature-coll-mgmt.pdf](http://www.arl.org/bm~doc/changing-nature-coll-mgmt.pdf) accessed on 13/03/2010
- Breaks, M. (1999). "Management of electronic information" in Jenkins, C. & Morley M (ed) *Collection Management in academic libraries*. Aldershot: Gower Publishers pp. 107-134
- Chandra, E. (2004). *Research methods: a quantitative approach*. Nairobi: Daystar University
- Chaudhry, A. C. (1995). Exploiting network information resources for collection development in libraries, 61<sup>st</sup> IFLA General Conference 20-25 August,. Available online: [www.ifla.org/IV/ifla61/61-chaa.htm](http://www.ifla.org/IV/ifla61/61-chaa.htm) accessed on 28/07/2008

- Chisenga, J. (2006). Information and communication technologies: opportunities and challenges for National and University Libraries in Eastern, Central and Southern Africa. Keynote paper presented at the Standing Conference of African National and University Libraries of Eastern, Central and Southern Africa, Dar-er-Salaam, Tanzania, July 9<sup>th</sup>-10<sup>th</sup>. Available Online: [eprints.rclis.org/9950/](http://eprints.rclis.org/9950/) Accessed on: 28/09/08
- Commission for Higher Education URL: [www.che.or.ke/](http://www.che.or.ke/) Accessed : on 27/09/08
- Corrigan, A. (2005). "The collection policy reborn: a practical application of web-based documentation". *Collection Building*, 24(2) : 65-69
- Davis, T. L. (1997). "The evolution of selection activities for electronic age". *Library Trends*, 45(3) : 391
- De Stefano, P. (2001). "Selection for digital conversion in academic libraries". *College and Research Libraries*, 62 (1) : 48-69
- Evans, G. E. and Saponaro, M. Z. (2005). *Developing library and information center collections*; 5<sup>th</sup> ed. Westport, US: Libraries Unlimited
- Evans, G.E. (2000). *Developing library and information center collections*. Englewood, New Jersey: Libraries Unlimited
- Fourie, J.A. (2001). *Collection management and development: only study guide for AIS 305-P*. Pretoria: University of South Africa
- Futas, E. (1995). *Collection development policies and procedures*; 3<sup>rd</sup> ed. Phoenix Press
- Gbaje , S. E. (2007). "Provision of online information services in Nigerian Academic Libraries". *Nigerian Libraries* 40:1-14
- Gessesse, K. (2000). "Collection development and management in the 21<sup>st</sup> century with special reference to academic libraries: an overview". *Library Management*, 21(7) : 365-372
- Gordon, I. D. (2000). "Asserting our collection development roles: academic libraries must take responsibility for the collection". *College and Research Libraries News*, 61(9) : 687-689

- Gorman, G. E. and Clayton, P. (1997). *Qualitative research for the information professional: a practical handbook*. London: Library Association Publishing
- Gorman, G.E. and Howes, B.R. (1989). *Collection Development for Libraries: Topics in Library and Information Studies*. London: Bowker-Saur, p. 148
- Gorman, G.E. & Miller, R. H. (eds). (1997). *Collection Management for the 21<sup>st</sup> Century: a handbook for libraries*. Westport: Greenwood Press
- Haas, L.M. (2000) "Local information: better utilizing the data at hand". *Journal of Library Administration*, 31(2) : 69-76
- Hamelink, R. J. (1997). "New information and communication technologies, social development and culture change". UNRISD Discussion Paper No. 86. Geneva. Available online: [www.unrisd.org/80256B3C005BCCF9/398D6A861127084780256B640051A497/\\$file/dp86.pdf](http://www.unrisd.org/80256B3C005BCCF9/398D6A861127084780256B640051A497/$file/dp86.pdf) . Accessed on 3/09/08
- Hazen, D. C. (1995). "Collection development policies in the information age". *College and Research Libraries*, 56(1) : 26-31
- Heeks, R. (1999). "Information and communication technologies, poverty and development. Development Informatics". Working Paper Series No. 5. Manchester: University of Manchester. Available online: [www.enrap.org/index.php?module=pnKnwMang&func=downloadFile&did=344&disposition=view&kid=245&cid=46](http://www.enrap.org/index.php?module=pnKnwMang&func=downloadFile&did=344&disposition=view&kid=245&cid=46) accessed on 05/09/08
- Igun, S. M. (2005). "Implications for electronic publishing in libraries and information centres in Africa". *The Electronic Library*, 23(1) : 82-91
- Jaganathan, N. (1989). "Collection development at Andhra Pradesh Open University Libraries". *Library Acquisitions: Practice and Theory*, 12(3/4) : 281-296
- Jenkins, C. and Morley, M. (1996). *Collection management in academic libraries*. Bombay: Jaico Publishing House
- Kavulya, J. M. (2004). University Libraries in Kenya: a study of their practices and performances. Available online: [edoc.hu-berlin.de/dissertationen/kavulya-joseph-muema-2004-02-19/PDF/Kavulya.pdf](http://edoc.hu-berlin.de/dissertationen/kavulya-joseph-muema-2004-02-19/PDF/Kavulya.pdf), Accessed on: 15/09/08

- Kiondo, E. (2004). "Around the world to the University of Dar Es Salaam Library. Collection development in the electronic environment". *Library Hi Tech News*, No. 6 pp. 19-24
- Kombo, D. K. and Tromp, D. L. A. (2006). *Proposal and thesis writing: an introduction*. Nairobi: Paulines Publication
- Kovacs, D. K. and Elkordy, A. (2002). "Collection development in the cyberspace: Building an electronic library collection". *Library Hi Tech*, 18(4) : 335-361
- Littlejohn, S.W. and Foss, K. A. (2003). *Theories of human communication*; 8<sup>th</sup> ed. Australia: Thomson
- Lovecy, Ian (1996). "The impact on collection management of automated systems and services", In Jenkins, C. and Morley, M. *Collection management in academic libraries*. Bombay: Jaico Publishing House, pp. 94-115
- Mugenda, O. M. and Mugenda, A.G. (2003). *Research methods: quantitative and qualitative approaches*, Nairobi; ACTS
- Mutula, S. M. and Makondo, F. S. (2003). "IT skills for collection development at the University of Botswana Library". *Library Hi Tech*, 21(1) : 94-101
- Mutula, S. M. (2000). "IT development in Eastern and Southern Africa: Implications for University libraries". *Library Hi Tech*, 18 (4) : 320-334
- Omoniwa, M.A. (2001). "The computerization of Kashim Ibrahim Library of Ahmadu Bello University, Zaria, 1972-2001", *Nigerian Libraries: Journal of the Nigerian Library Association*, 35 (1) : 15-22
- Oso, W. Y. and Onen, D. (2005). *A handbook of beginning researchers*. Kisumu: Option Printers and Publishers
- Reitz, J. M. (2002). Online dictionary of library and information science. Available online: [www.lu.com/odlis/](http://www.lu.com/odlis/) accessed on: 03/09/08
- Ridley, D. (2008). *The literature review: a step-by-step guide for students*. Los Angeles: Sage
- Robson, C. (2002). *Real world research*; 2<sup>nd</sup> ed. Malden, M.A.: Blackwell Publishing



- Rosanne, C. (1991). "When less is more: issues in collection development". *School Library Journal*, 37: 130
- Rosenberg, D. (1998). "IT and University Libraries in Africa". *Internet Research, Electronic Networking, Application and Policy*, 8(1) : 5-13
- Sheila, S. (1994). Guidelines for a collection development policy using the conspectus model, Available online: [www.ifla.org/VII/s14/nd1/gcdp-e.pdf](http://www.ifla.org/VII/s14/nd1/gcdp-e.pdf). Accessed on 15/09/08
- Van Z. C. (1998). "The why, what and how of collection development policies". *South African Journal of Library and Information Science*, 66(3) : 99-106
- Vickery, J. (2004). "Making a statement: reviewing the case for written collection development policies". *Library Management*, 25(8/9) : 337-342
- Vogel, K. D. (1996). "Integrating electronic resources into collection development policies". *Collection Management*, 21(2): 65-76
- White, G. W. and Crawford, G. A. (1997). "Developing an electronic information resource collection Development policy". *Collection Building* 16(2) : 53-57,
- World Bank (2002). *Information and communication technologies: a World Bank Group Strategy*. Washington, D.C.
- Yi, H. & Borin, J. (2006). "Measuring trends in electronic resource usage: analyzing database statistics to assess current and future directions", *Management Innovation & Library Services*, Proceedings of the 3rd Shanghai International Library Forum, pp. 352-66

**ANNEX I**

**INTERVIEW SCHEDULE**

**FOR UNIVERSITY LIBRARIANS, TECHNICAL SERVICES**

**LIBRARIANS, ICT LIBRARIANS**

Thank you for being willing to take part in the interview to the survey. Can I first of all assure you that you will remain completely anonymous and no records of the interview will be kept with your name on them.

Name of Library \_\_\_\_\_

Name of Institution \_\_\_\_\_

1. What are your qualifications?
2. How many years of experience do you have in the current position?
3. What experience do you have in collection development?
4. Tell me about your responsibilities in collection development unit.

**Collection development practices in private university libraries**

Does the technical services division undertake the following tasks?

1. User needs analysis
2. Collection development policy formulation and updating
3. Selection
4. Acquisition
5. Cataloguing and classification
6. Searching and retrieval
7. Weeding
8. Evaluation of information resources

User needs analysis

1. How frequently is user needs analysis done in your library?
2. Who does the user needs analysis?

3. For what purpose is user needs analysis conducted?
4. What method do you use when collecting data for needs analysis? Manual or electronic?
5. If manual, what are the advantages and the challenges experienced?
6. If electronic, what are the advantages and challenges experienced?
7. How do you analyze the data that you collect during the user needs analysis process?
8. What other challenges do you experienced when conducting user needs assessment?

#### Collection development budget

9. How much is your collection budget in a given year?
10. How is the collection development budget allocated?
11. Is it sufficient for collection of print and electronic materials in a year?
12. How else do you supplement the collection budget in a given year?

#### Collection development policy

13. In what format is your collection development policy?
14. How frequently is the collection development policy updated?
15. How is it communicated to the library staff, teaching staff, management and the users?

#### Selection of information materials

16. How is selection of information materials done?
17. What selection tools does the library use for selection of information materials?
18. What form of selection tools is used? Electronic or manual
19. Are the selection tools easily accessible by the people involved in selection of information materials?
20. What are the strengths and weaknesses of the selection tools used?

21. Does your library use internet in selection? If yes how is it done? If no why is the internet not used?
22. In which way do people involved in selection of information materials communicate their selections?
23. What suggestions can you give for improvement of selection of information materials in university libraries?

#### Acquisition of information materials

24. What tasks are involved in acquisition process and are these tasks done electronically or manually?
  - a. Pre-ordering
  - b. Ordering
  - c. Accessioning
  - d. Fiscal management
  - e. Acquisitions record keeping
25. What are the implications of electronic or manual acquisition process in terms of:
  - a. Speed \_\_\_\_\_
  - b. Accuracy \_\_\_\_\_
  - c. Thrift \_\_\_\_\_
26. What challenges do you experienced in acquisition of information materials?

#### Search and retrieval

27. Is the library catalog manual or computerized?
 

If manual, why isn't it computerized and what challenges are associated with a manual catalog?

If computerized, what are the advantages?

If both, which one is more popular?
28. Which software is used for search and retrieval and what are the advantages and limitations of the software in use?

Diversity of information resources

29. Do you have information resources in both print and electronic formats?
30. What percentage of information resources is in:  
 Print format \_\_\_\_\_  
 Electronic format \_\_\_\_\_

Weeding

31. Do you undertake weeding exercise?  
 If so how frequently?
32. In what ways can ICT help in weeding of information materials?

Evaluation of information resources

33. Does your library undertake evaluation of information resources?  
 If yes explain how and if not explain why.
34. What is the purpose of the evaluation process?
31. How frequently is the evaluation done?
32. What methods do you use in evaluation of print and electronic resources?  
 Print resources \_\_\_\_\_  
 Electronic resources \_\_\_\_\_
33. In which ways can ICTs be used in evaluation of information resources?

**Challenges faced by Private University Libraries in collection development**

- 1 What are the challenges that you face in collection development activities?
2. In your own opinion in which ways can ICTs be used to overcome these challenges?
- 3 What do you think are the most difficult issues that are facing collection development in this era of information and Communication Technology?
- 4 In your opinion, how can collection development practice in private university libraries be improved?

**The extent of application of ICTs in collection development**

1. In which areas is ICT used in collection development?
2. How effective is your Integrated Library Management System (if any) in management of the collection development activities in the library?
3. What problems do you experience in application of ICTs in collection development activities?
4. In what ways has ICTs affected collection development in libraries?

**Development of electronic resources in private university libraries**

1. What electronic resources does your library subscribe to and why?
2. Does the library subscribe to the resources through a consortium? Which one (if any)?
3. What are the advantages and limitations of electronic resource collection compared to the print resources?
4. What difficulties do you experience in developing the electronic resources?
5. What are the challenges is your library facing in management of electronic resources?

**Library patrons' satisfaction with the collection**

1. How effective are the print and electronic resources in meeting the needs of the library patrons?
2. Are library patrons involved in suggestion of titles to be purchased? If yes explain how it is done and the effectiveness of the method used.
3. In your opinion do your library patrons have adequate ICT skills to adequately exploit e-resources?

**The effects of internet on collection development in private university libraries**

- 1 Does the library use internet in assessment of user needs, selection and acquisition of information materials? If yes explain how.

2. In your opinion, how has internet affected collection development activities in academic libraries?

**Technology infrastructure to support collection development activities**

1. Does the university have ICT infrastructure to support collection development? If *yes* please respond to the following:
  - a. Number of computers and their specifications
  - b. Internet availability and bandwidth capacity
  - c. Computer network availability
  - e. Library software in use and its features
  - f. CD-ROMs, intranetIf *no* what are the challenges that you are facing?

**ICTs use to enhance collection development in private university libraries**

1. Does the library have e-mail address?
2. In your opinion how can ICTs be used to improve collection development practices in private university libraries?
3. How can ICTs be used to overcome the challenges of manual collection development practice?

**Thank you!**

**ANNEX II**  
**INTERVIEW SCHEDULE FOR FACULTY DEANS**

Name of Institution \_\_\_\_\_

Faculty \_\_\_\_\_

Position \_\_\_\_\_

Number of years in the position \_\_\_\_\_

**Collection development practice in Private universities**

1. Are you familiar with the collection development policy of your library?

If yes, in what format is it communicated to you? Print or electronic

2. What is your role in acquisition of information materials in the library?

3. Are you involved in selection of information materials? If yes please respond to the following:

- a. What information selection tools are accessible to you?
- b. The ease of use of information selection tools
- c. In which ways are the selection tools useful in selection of relevant information resources for teaching and study?
- d. What challenges do you experience in selection of information materials?

**Application of ICTs in collection development**

1. Are you aware that ICTs can be used in selection and development of information resources?

If yes do you use electronic information selection tools?

2. In which way are electronic selection tools useful in selecting relevant information resources?

3. How else do you use ICTs in development of library information resources?

4. What are the challenges that you face in application of ICTs in collection development in your library?



**Development of electronic resources**

1. To what extent does the teaching staff use e-resources for teaching and learning?
2. In which ways does the teaching staff contribute in selection of electronic information materials for the library?
3. Are the electronic resources easily accessible to members of your faculty?  
If no, what challenges do they face in accessing electronic resources?
4. Do you usually recommend electronic information resources to you students?  
If no, why
5. In what ways can electronic resources be popularized among the teaching staff and the students?

**Users' satisfaction with the resources**

1. Are teaching staff satisfied with the library information resources available to them? Please explain
2. Does the teaching staff experience any difficulty when accessing the information resources in the library? Please explain
4. How has library electronic information resources assisted in the teaching and learning of the teaching staff?
5. Are the electronic resources relevant to the course of work and study of the teaching staff?
6. What do you think are the weaknesses of the information collection in your library?
7. In your opinion how can these weaknesses be overcome?

**Thank you for participating in this survey!**

## ANNEX III

## QUESTIONNAIRE FOR POST-GRADUATE STUDENTS

**Dear Respondent,**

I am a post-graduate student undertaking a Masters degree in Library and Information Studies in Moi University and currently I am doing a research on “**The Application of Information and Communication Technology in Collection Development in selected private university libraries in Kenya**”. The researcher has identified you as a potential respondent to assist in providing relevant information relating to the objectives of this study. The information given will only be used for the purpose of this study and will be treated as confidential.

Name of University \_\_\_\_\_

Department \_\_\_\_\_

Course \_\_\_\_\_

Year of Study \_\_\_\_\_

1. Are you familiar with the collection development policy of your library? \_\_\_\_\_

2. In which format is it? Print or electronic or both \_\_\_\_\_

3. Have you ever involved in library user needs analysis? \_\_\_\_\_

If yes, was the process manual or electronic? \_\_\_\_\_

4. Are you satisfied with the library information resources available to you for your academic work? If yes please explain and if not explain why.

\_\_\_\_\_

\_\_\_\_\_

5. Is the library catalogue available in manual or electronic format? \_\_\_\_\_

6. What difficulties do you experience in accessing library information resources?

\_\_\_\_\_

\_\_\_\_\_

7. Which formats of information resources are available in the library? Print or electronic or both \_\_\_\_\_

8. Which format of information resources do you prefer and why? \_\_\_\_\_

---

9. How has the availability of electronic resources assisted in your academic work?

---

10. How relevant are the library electronic resources to your course of study?

---

11 How easily accessible are the electronic resources? \_\_\_\_\_

---

12. Do you pay a fee to access the electronic resources in your library? \_\_\_\_\_

---

13. Do lecturers refer you to articles in the internet? \_\_\_\_\_

14. How else do you know that electronic resources exist in the library?

---

15. Has availability of internet and networked information resources affected your use of the library and library services? If yes Please explain how

---

16. Do you participate in suggesting titles of books in your course for acquisition? Please explain how this is facilitated.

---

17. What change(s) would you most like made to the library information collection?

---

18. Are the ICT equipment provided by the library adequate enough to allow easy access to electronic resources? If not adequate, please explain how they can be improved.

---

12. Do you have an e-mail address and does the library use your e-mail address to communicate to you? \_\_\_\_\_

**Thank you for participating in this survey!**

**ANNEX IV**  
**PRE-TEST CHECKLIST FOR INTERVIEW SCHEDULES AND**  
**QUESTIONNAIRE**

**Research Title:**

**The Application of Information Communication Technology in Collection development in Selected Private University libraries in Kenya**

This research seeks to find out the ways in which collection development practices in private university libraries can be enhanced by use of information communication technology

**Objectives of the study**

The study aims to fulfill the following objectives:

- To analyse collection development practices of private university libraries in Kenya
- To find out how traditional collection development practices have impacted on collection development in private university libraries
- To establish the extent to which ICTs can be applied in collection development activities
- To explore the levels of development of electronic information resources in private university libraries
- To suggest how ICTs can be used to enhance collection development practices in private university libraries

**ANNEX V**  
**PILOT STUDY QUESTIONS**

1. Are there any words that are spelt incorrectly?

Yes [ ]

No [ ]

If yes, please indicate which ones in the interview schedule

2. Is the font size used in the interview schedule legible?

Yes [ ]

No [ ]

If No, please provide suggestions

---

3. Is the vocabulary used appropriate for the different categories of respondents?

Yes [ ]

No [ ]

If no, give suggestions

---

4. Are there any questions in the interview schedule that are not clear?

Yes [ ]

No [ ]

If yes, mark in the schedule and provide suggestions to improve clarity

---

5. Is the sequence of questions flowing in the schedules?

Yes [ ]

No [ ]

If no, provide suggestions

---

6. Are all the objectives adequately covered in the questions in the interview schedules?

Yes [ ]

No [ ]

If no, please indicate the specific objectives not adequately covered and give suggestions on kind of questions to ask?

---

**Thank you!**