

**BARRIERS IN ACCESING AND RETRIEVING INFORMATION
RESOURCES IN ACADEMIC LIBRARIES: A CASE STUDY OF
SELECTED LIBRARIES OF NAIROBI UNIVERSITY**

BY

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE
OF MASTER OF LIBRARY AND INFORMATION SCIENCE OF
KENYATTA UNIVERSITY**

AUGUST 2007

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*Barriers in accessing
and retrieving*



2010/344673

DECLARATION

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DEDICATION

This work is dedicated to my loving family, Dan my hubby, Nicole, Connie and Marie my lovely daughters for understanding my continued absence. May you be blessed.

ACKNOWLEDGEMENTS

First and for most, my thanks and gratitude are to God for giving me the strength and endurance to go through this programme. Let the Glory go to him.

My sincere gratitude goes to my supervisor Mr.E W. Muya for his guidance, positive criticism, patience and his input towards the completion of this project.

My indebtedness also goes to my family, my parents, my husband my daughters and my house help Nduku for their prayers, understanding and cooperation that made my dream a reality.

I am equally appreciative and very grateful to my other lectures in the Department of Library Studies, Mr Mukuvi, Mr. J R Njuguna , Ms. M. Mathu and DR. P.G Mwathi .

I also express my special thanks to my classmates, Eve, Otando, Cathi, Mugo ,Mwai and Wagacha for their unique contributions to this work.

I cannot forget the constant encouragement and words of hope I kept getting from my workmates, Mrs Munavu, the University Librarian, Jane, Grace, Mercy, Regina, Emma and Kibe. May God bless you all.

To all the students and staff who got time to complete my questionnaires I say Asante Sana.

May God do good to you all!!!!

ABSTRACT

Access to information in academic libraries is of vital importance. Users of academic libraries need information for education, training and research. University academic programmes are tight and students are always overwhelmed with the number of units they have to cover, term papers to finish and projects to write, thus accessing library materials should be very smooth with minimum constraints to save their time. Libraries should ensure that users receive adequate training on how to use the library and information retrieval tools should be user friendly, reliable and available. However, accessing information has faced challenges that have made the process frustrating to users and therefore hindering the library from achieving its goal of disseminating information.

The main purpose of this study was to investigate the barriers that make the access and retrieval process time consuming, tiring and difficult in academic libraries in selected libraries of the Nairobi University library system. The study objectives were: to find out barriers that are related to the library systems, barriers that are related to the user systems, barriers that are related to Library staff systems and barriers that are related to multi-media systems and the effect these barriers have on information use. The researcher used a descriptive survey design to collect data. The design is appropriate in studying the problems users face in accessing information because it focuses on the users' views, opinions and perceptions on what barriers they face while accessing and retrieving resources.

The study established clearly that academic libraries have barriers that affect information access and retrieval to a large extent. These included library related barriers like faulty

information retrieval tools, poor library and stock signage and guidance. Others included, lack of skill on how to access and retrieve information and lack of publicity of resources which led to unawareness of resources. Untrained library staff and lack of commitment to work by personnel. Multimedia related barriers that included Poor telecommunication infrastructure, inadequate electronic services and facilities were the other barriers.

Major recommendations from the study are to facilitate the use of electronic retrieval tools which are more effective; intensive and continuous training of users to impart skills of information access and retrieval; training of library staff about customer care and public relations. Other recommendations include marketing of library services and resources, improvement of telecommunication infrastructure and increase the number of multi-media facilities and services.

LIST OF ABBREVIATIONS

U.O.N	University of Nairobi
J.K.UAT	Jomo Kenyatta University of Agriculture and Technology
K.U	Kenyatta University
LC	Library of Congress
E.I.S	Electronic Information Services
OPAC	Online Public Access Catalogue
IL	Information Literacy
ADD	Architecture Design and Development
JKML	JomoKenyattaMemorial Library
IITD	Indian Institute of Technology, Delhi
ERL	Electronic Resource Location
PC	Personal Computer
IT	Information Technology
CD-ROM	Compact Disk –Read Only Memory
CD- R	Compact Disk- Rewritable

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CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The mission of academic libraries is to contribute to the goals of the University, college, or institution of which it is a part and to the wider scholarly community (Abell 1979). Those goals pertain to teaching, learning, research, publication and public service in some combination. The University libraries cater for the teaching and research by acquiring, organizing and making available books, journals and non-book materials for use by the academic staff and their students.

It is now generally accepted that the guiding principle of the most academic libraries is the provision of access to library materials rather than the building of collections, this has sometimes been referred to as the access versus holding debate. Academic libraries provide a comprehensive service to enable scholars and students access their invaluable collections. A lot of emphasis has ever been on developing better tools and techniques for organizing and managing library materials to ensure timely and easy access to the same.

Utilization of a library collection largely depends on how it is timely and easily accessed. Schuman (1981) noted that information seeking behavior of users of libraries appeared to follow a "law of least effort", this means that access to information should be very easy and not complex to avoid any use of effort to locate it. This has been supported by Lancaster (1977) while citing Moor's law which says that an information retrieval system will tend not to be used whenever

the more painful and troublesome for the customer to have information than for him not to have it. This analysis has illustrated that whenever there is a barrier or a constraint in accessing library information sources, the user tends to postpone or abandon the use of the same altogether. The first and fourth Rang Nathan's laws of library science stress the value of books and insists that these books are for use, this law guides the libraries in facilitating use of these materials. The fourth law emphasizes the importance of time; time of the user is very valuable. Academic libraries serve users who are heterogeneous and most of these users have other duties to accomplish, time to them is precious. Students' academic programs are very congested and therefore leaving them with very little time to study and do their projects. Retrieving information sources should be very easy and less stressful and therefore no barriers or constraints should come their way. Quoting Foskett, Mutwiri (2005) states that, by and large information continues to be treated as a valuable natural resource, and thus libraries exist so as to provide access to the necessary information because on itself, information has no value until it is used. According to Whittaker, (1993:1) libraries are but one of a vast range of institutions that supply today's society with some sort of service. The particular kind of service that libraries offer is access to large and organized stores of knowledge.

However, Dr. Sharif (1993) observed that academic libraries were facing problems concerning services because students did not know how to use the library. A study done by Nilsen (2006) on comparing user's perspectives of in-

person and virtual reference found out what makes patrons unwilling to return to the library was often barriers to access.

Studies carried out in developing countries on users' views concerning libraries are a clear indication of what they encounter in the libraries. 'Some libraries seem to the majority of users to store books in such a way that nobody can find them without several years of training'. (Thompson, 1982:7). It should be noted that users are only interested in obtaining the most pertinent information within the shortest time possible, confronted by such complexities, may start looking for other alternatives.

Maurice Line as quoted by Thompson, gave libraries a warning at a conference on information provision that "If some libraries and their staffs do not become more user- friendly, even the friends they have may desert them for computer terminals, which have their limitations but may also have fewer user- hostile elements". (Thompson, 1982:5).

On information access and retrieval Muruli, (1992) noted that library personnel lack adequate knowledge and skills to meet the challenges of information explosion, he cited Paton p.243-248.....that the failure to achieve satisfactory standards of services in libraries arises from more often through neglect of effective staff training than from defective organization.

In his study, Thompson, (1982:1) realized that the catalogue was not used by users to locate information because of its complexities and noted that, though it was meant for use , it appeared to be inventories for the custodians rather than finding aids designed for the users.

On access and retrieval of EIS, a study done by Mutwiri,2005 showed 93% of the students and 95% of the academic staff were not satisfied. They cited the following as the reasons for dissatisfaction

- Lack of enough computers
- Slow computers
- Lack of library staff to assist users
- Short hours for searching
- Lack of internet connectivity

These studies show that access to resources is faced by several barriers. It is important for Libraries to remove or minimize these barriers to ensure maximum utilization of their resources.

1.2 STATEMENT OF THE PROBLEM

Access to information in academic libraries is of vital importance. Users of academic libraries need information for education, training and research. University academic programmes are tight and students are always overwhelmed with the number of units they have to cover, term papers to finish and projects to write, thus accessing library materials should be very smooth with minimum constraints to save the users' time. Libraries should devise better ways of ensuring access to information is barrier free.

However, despite the efforts academic libraries are putting in place to create an easy and timely access to their collection so as to realize their objectives, there seems to be barriers which face the access and retrieval process. Users have not been able to access the collection or had to go through painful and time consuming ways to access information

sources. Studies done in academic libraries have shown that users of academic libraries face various constraints in accessing information sources. Random checks by this researcher in one of the academic libraries in Kenya has revealed that some of these sources have not been used for as far back as four years, journal borrowing file indicates that few journals have been borrowed for use, borrowers cards on unpublished materials portray non use of these materials. Users of these academic libraries have in time memorial turned to library staff to assist in locating library material. Information search is becoming complex with new knowledge been generated daily, users have found it difficult to locate parts of information and sought librarians assistance.

The study therefore seeks to explore the reasons why information resources are not easily accessed and retrieved, the nature of the barriers and the extend to which the users have felt them. The study seeks to find out the effect these barriers have on information use.

1.3 OBJECTIVES OF THE STUDY

1.3.1 General objective was to examine the barriers that limit access and retrieval of information resources in academic libraries and the effect they have on information use.

1.3.2 Specific objectives were to

- 1.To find out, whether the information retrieval tools and library services offered facilitate information access and retrieval
- 2.To examine, whether the existing library signs, guides and classification scheme facilitate information access and retrieval.
- 3.To assess the status of stock organization and shelving.

- 4.To establish the level of users' skills in information use and their awareness to library resources and services.
- 5.To find out, the status of the IL programs offered.
- 6.To assess the present position of staff training, attitudes and their role in facilitating information access and retrieval.
- 7.To establish the nature of communication between users and library personnel in promoting information access and retrieval.
- 8.To find out the status of the available multi-media equipments and facilities in facilitating information access and retrieval.
- 9.To suggest suitable measures for the improvement of information access and retrieval.

1.4 RESEARCH QUESTIONS

- 1.Does the user education offered facilitate access and retrieval of information?
- 2.Do the available information retrieval tools facilitate access and retrieval of information resources?
- 3.Does the communication between users and library personnel encourage information access and retrieval?
- 4.Do the services offered by library assist users in information access and retrieval?
- 5.Are the available Library equipments and facilities adequate and appropriate in providing access and retrieval of information?
- 6.What effects do these barriers have on use of information resources?

1.5 SIGNIFICANCE OF THE STUDY

This study will be significant in several ways:

It is hoped that its findings will offer practical solution to the information access constraints in academic libraries and therefore increase the utilization of the collections so as to promote research, learning and teaching. This study may also act to influence librarians' current thinking about barriers to information access in the libraries and change the way they have been offering services.

It will contribute to knowledge, on how access can be improved through the users, Multi-media facilities, libraries, and personnel and the overall importance of resources to the library management and policy makers. Services to their users whose user needs are different and change with time. The findings of this study may recommend changes in the traditional ways of acquiring processing, disseminating and delivering services to users. It may also recommend new administrative and management styles to improve service delivery. Findings may be used by University policy makers to try and improve the present situations in academic libraries. The findings may help in the re-evaluation of the user education programs. Finally, literature review has revealed that little research has been done in this area and therefore the study may in spur more research in the area and make users of academic libraries more aware of the barriers of access in their search for information. Above all the research findings may generate new knowledge in this area.

1.6 OPERATIONAL DEFINITION OF TERMS

Accessibility

The ease with which a person may enter a library, gain access to its online systems, use its resources, and obtain needed information regardless of format. In a more general sense, the quality of being able to be located and used by a person. In the environment, the quality of being usable by everyone regardless of disability.

Information retrieval (IR)

The process, methods, and procedures used to selectively recall recorded information from a data of data. In libraries and archives, searches are typically for a known item or for information on a specific subject, and the file is usually a human-readable catalog or, index or a computer-based information and retrieval system, such as an online catalog or bibliographic database. In designing such systems, balance must be attained between speed, accuracy, cost, convenience, and effectiveness. Patron : Any person who uses the resources and services of a library, synonymous with user.

Patron Any person who uses the resources and services of a library, not necessarily a registered borrower. Synonymous with *user*

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher will explain the theoretical framework and conceptual framework on which the study is based on. The chapter will briefly give a general overview of information access, retrieval and use in academic libraries. It will finally review literature related to information access and retrieval. This review will be based on the four objectives of the study, namely; - library related barriers, staff related barriers, user related barriers and multi-media related barriers in connection to how they affect information access and retrieval. The study objectives will therefore provide a framework for the literature to be reviewed. The researcher will also define the gap which forms the entry point of the study.

2.2 THEORATICAL FRAME WORK

The study is based on Shannon and Weavers' theory of communication .The Shannon and Weavers' is a modern communication theory based on mathematical theorems developed by Claude Shannon an engineer and researcher at Bell Laboratories, in 1948. Shannon's original theory (also known as "information theory") was later elaborated and given a more popular, non-mathematical formulation by Warren Weaver, a media specialist with the Rockefeller Foundation. In effect, Weaver extended Shannon's insights about electronic signal transmission and the quantitative measurement of information flows into a broad theoretical model of human communication, which he defined as "all of the ways by which one mind may affect another." The effectiveness of human

communication, Weaver asserted, may be measured by "the success with which the meaning conveyed to the receiver leads to the desired conduct on his part." He thus introduced concepts of human purpose and reaction into what had originally been a set of highly technical equations for analyzing and evaluating the transmission of messages.

Theory [available online] at **http: www.collaboratory.**

Nunet.net/dsimpson/comtheory.html.

In its simplest form, the theory has three key steps in the flow of information: The source, the channel and the destination. They stated that for the flow to be effective there should be no noise at the stage of the channel otherwise, the noise will distort the communication to the destination. In this study, the information resources are source (both electronic and printed). These include books, journals and e-journals etc. The information channels are the library personnel, the catalogues and the indexes, the multi-media facilities like the computers, the projectors, and user abilities. The destination is the user, the finished projects and assignments. The information can only reach the destination if there is no noise at the channel point. In the study, the noise are the barriers that limit information/information sources to reach to the destination, the possible barriers here are factors related to the users like lack of skills on how to use the catalogues, library related factors like lack of reference services, personnel related factors like shortage of personnel to assist users on how to access information sources and multi-media related factors like slow speed of search and inadequate time for search. However, the laws of librarianship as formulated by Rang Nathan, a famous Indian Librarian have been put in place to remove the "noise" in Shannon's and Weavers theory of communication .If Libraries

adhere to these laws, users will be able to access and retrieve information in the right time

- Books are for use
- Every reader his/her book
- Every book, its reader
- Save the time of the reader
- A library is a growing organism

The two theories agree that information is for use, it should reach the end user with no barrier in the information transfer process. The user should be the central point in the service of the library; he should be able to access the right information at the right time.

2.2.1 CONCEPTUAL FRAMEWORK

In this section, the researcher will explain the conceptual framework of the study as illustrated on figure 1. It will act as a guide to the possible reasons that affect information access and retrieval. Information access and retrieval in any library and academic libraries in particular is limited by various barriers. These factors determine whether users have speedy access to information or not and therefore determine information use. These barriers are categorized into four variables, which are; user related barriers, library related barriers, library staff related barriers and multi-media related barriers. The conceptual framework will show how these variables are interrelated to one another.

Figure 1 shows possible barriers to access and retrieval of information resources by users, these barriers affect the use of information resources.

Variables that are user related include-lack of skills on how to use the library lack of awareness of available resources, poor attitudes and perceptions, irresponsible behaviors like hiding books and mutilating pages. Library related variables include unreliable catalogues, unshelved books, lack of guides and pathfinders of the collection, and unavailable information access services. Personnel related barriers include-unskilled personnel, not enough personnel and unfriendly personnel. Multi-media related barriers include inadequate equipments, inadequate time for search, and unavailable related services like printing facility, lack of personnel assistance. All these variables interact together to limit access and retrieval of information resources. The factors are inter-dependent

Figure 1: shows that possible barriers to information access and retrieval also determine library use or non- use and may be a major problem that may be making patrons prefer other alternative sources of information to the library.

Research reviewed showed that libraries need to have the following features among others, in order to facilitate information access and retrieval

- Good physical layout and sufficient guiding
- Helpful and knowledgeable staff
- Simple, well arranged and easily understood stock arrangement
- Sufficient services to assist information access and retrieval
- Adequate multi-media facilities and reliable telecommunication infrastructure

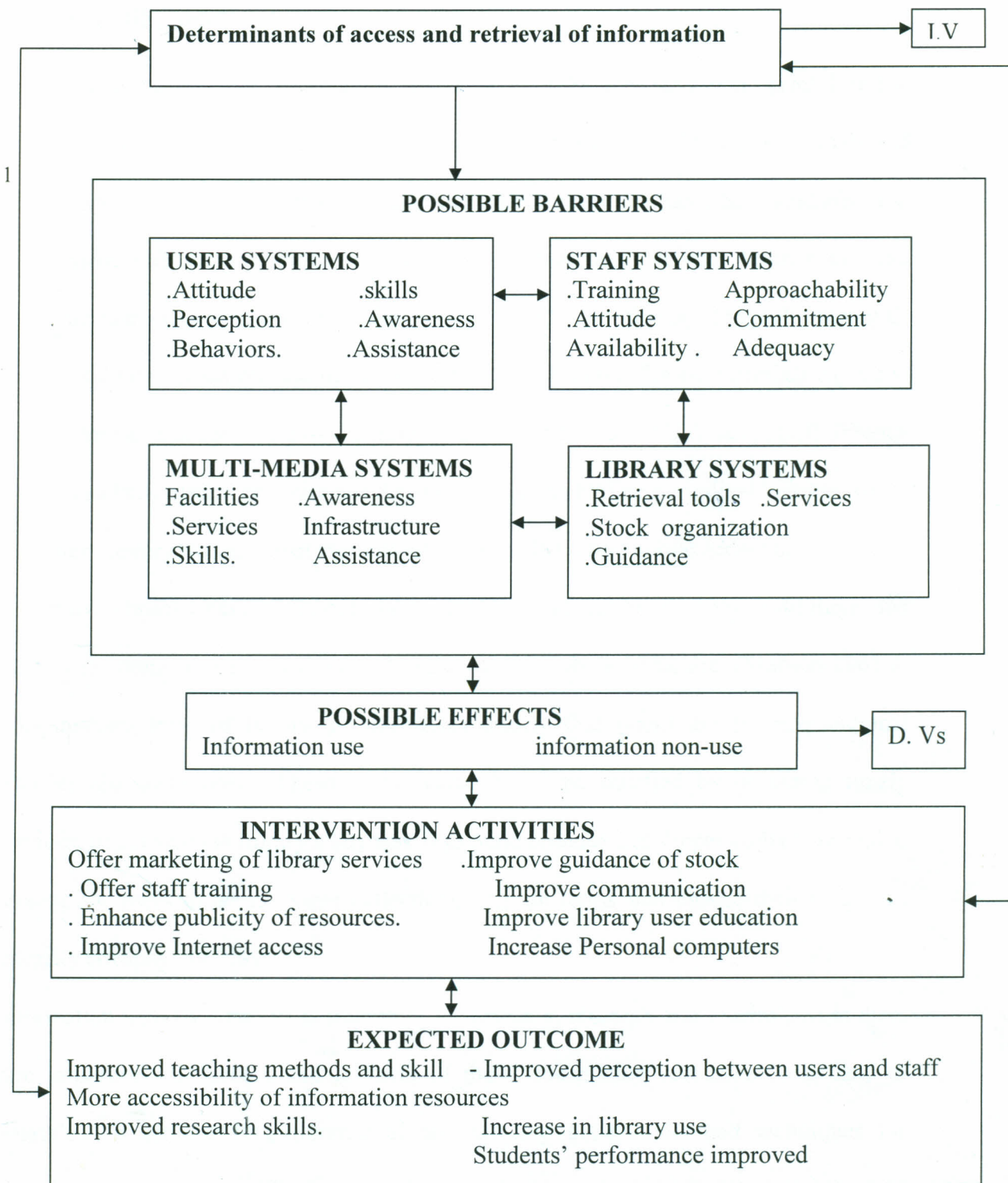
- Location tools like catalogues, indexes and abstracts which should be user friendly and reliable
- Knowledgeable user community fully aware of the resources available in their library.

These factors play a very important role in determining the use of a library's information resources. If the above factors are not promoted, they cause non-use of library resources.

The conceptual framework shows that all the four factors (library, user, staff and multi-media) are inter-related in influencing information access and retrieval. They all determine information use or non-use.

Therefore, it is very important for a library to improve the above factors in order to ensure full access to its information. The study will explore the barriers that limit access to library materials and the effect these barriers have on library use.

Figure 1: CONCEPTUAL FRAMEWORK: FIGURE 1



¹ KEY: I.Vs Independent variables,
D.Vs Dependent variables
SOURCE; The researcher

2.3; Overview of information resources, access and retrieval process in academic libraries

Academic libraries have information resources in both print and non- print formats. Printed information include and are not limited to, books, periodicals like journals and news papers, thesis and dissertations, pamphlets, articles, patents, standards and government publications. Non-print materials include and are not limited to, film materials that include filmstrip (slides, Cinefilm and microforms), Magnetic materials e.g. (sound tape which include open reel, cassette, video etc). Plastic materials e.g. vinyl discs, Optical storage systems, including Cd-audio,Cd-Rom,Cd-Video,CD-R..Internet resources like,E-mail,search engines ,On-line databases, Online periodical indexes, world wide web ,library management systems which provide Online public access catalogue.

University libraries have commonly been referred to as the heart of the institutions and their collections as one fundamental pillar of the whole structure (Mutwiri,2005:2) Ranganathans laws of library science states clearly that books are for use and that libraries are about users .These users needs should be satisfied by providing timely services. In essence the library's key task is to build broader and deeper collections and to arrange for users to access these collections only on terms that ensure their long-term integrity (Brophy 2000:43)

Information held by libraries is important for learning, research and teaching .It is therefore important that access and retrieval of these information resources is as easy as possible. To achieve this, libraries should develop better tools and techniques for organizing and managing library materials.

With the proliferation of new information and communication technologies, access to information resources trends are changing. New information providers are coming up, libraries can no longer continue assuming that they are the only information providers. They should focus on creating a barrier free information access and retrieval.

However, access and retrieval of these information resources is faced by access problems. Thompson, 1982:7 quoted by Mutwiri, 2005:6 noted that some libraries seem to the majority of the users to store books in such a way that nobody can find them without several years of training. Several barriers have been associated to this strain in accessing information resources. Users lack skills on how to access this resources, Rukwaro, 1998 Quoting Khayesi, 1996:148 observed that postgraduate students had problems locating information resources and suggested that postgraduate students need user education to make them better users of information resources available at Kenyatta University Library. Library related factors also provided barriers to information access. Olaka 1999:50-51 noted that students where having problems using the catalogue. Some complained that there were missing cards in the catalogues and confusion in the way the cards are arranged.

Multi-media related complications have also hindered access to information resources, chief among them have been, poor telecommunication infrastructure, lack of skills on how to access electronic resources and inadequate facilities.

Staff related barriers like staff shortage, unqualified and unfriendly staff have limited access to information resources.

University libraries play an important role of providing information for research, learning and teaching. However, the truth of the matter is that academic libraries have not

provided adequate services that ensure maximum access and retrieval of their information resources. Users of these academic libraries have turned to other information providers to look for information. This is a clear indication that users have had strains in using academic library's materials. The following are therefore some barriers that may make access and retrieval of information impossible or cumbersome.

2.4 LIBRARY RELATED BARRIERS

2.4.1 INFORMATION RETRIEVAL TOOLS

2.4.1.1 LIBRARY CATALOGUE

The primary role of the library is to act as a 'finding device'. To facilitate access to information, users consult the catalogue to locate the materials they need from the library. But quoting Thompson (1982:1), Mutwiri (2005:23) notes that, catalogues provided to the enormous collections appear to be inventories for the custodians rather than finding aids designed for the users. In her survey at Four Kenyan Universities (Nazarene, Kenyatta, USIU, and Daystar), on library –patron relationship she found out that 47% of the respondents felt the catalogue was effective, 30% said it was helpful, 18% described it as very effective and 4% didn't find it helpful at all. Olaka (1999:55) in his study at U.O N law library found out that students had difficulties in using the catalogue, asked why, they said the catalogue cards were arranged in a confusing manner, drawers in the subject and author/title catalogue were not properly labeled and some cards were missing. He further found out that students complained that it took a lot of time to locate materials that they would rather browse. From the above it is clear that library users rarely use the

library catalogues to retrieve documents, library catalogues are inefficient and users have difficulties in using the catalogues.

2.4.2 LIBRARY SERVICES

Accepting that libraries are, in the hybrid model (have both print and non-print) and based on collections of information objects which may be held by the library or accessed on behalf of the user from a remote location, several services have to exist to facilitate access to information resources (Brophy, 2000). Chief among these include

- Advisory services, able to answer a range of different types of query, from directional enquiries – such as the location of particular stock- to complex information questions requiring detailed subject knowledge and familiarity with specialized information sources.
- Support services, the actual services delivered may be tailored to particular requirements, as with a current awareness service or selective dissemination of information for researchers or a collection of readings for an undergraduate course and user education
- Other services, determined by the local library. for example, many academic libraries hold invaluable archive collections and will provide a comprehensive service to enable scholars access and use them. (Brophy 2000)
- Reference and enquiry services, the academic library's ability to offer authoritative advice is one of its hallmarks. In particular, the facility for users to secure help with their information enquiries is one of the 'bedrock' services which

users value and exploit. It helps many users to find the required information in the mass of sources that face them and successful exploitation of those resources.

A study done by Nilsen (2006) on comparing user's perspectives of in-person and virtual reference found out what makes patrons unwilling to return to the library, users often described barriers to access. Within libraries, they noted lack of clear signage for reference desks, lack of any means of identifying professional librarians and unapproachable busy library staff. When asked to rate the extent to which the librarian was friendly and helpful or understood the information needed, less than 20 per cent of library visit study respondents indicated negative experiences. Even dissatisfaction with the experience as a whole, as indicated by 31 per cent of respondents, did not match the 41 per cent who were unwilling to return. Three underlying problems resulting in user dissatisfaction were identified through the Library Visit Study, and these were all related to staff behaviour of:

1. By-passing the reference interview;
2. Un-monitored referrals; and
3. Failure to ask follow up questions.

He recommends that, in both in-person and virtual reference, it would be much more cost and time efficient if, at the outset, a few minutes were taken to conduct a reference interview to find out what the patron really wants to know before starting to search library catalogues or bombard him or her with URLs, and pushed pages. Unmonitored referrals should be avoided because they waste everyone's time, and follow-up should be routine so that the patron feels welcome to let the staff member know if the question has

not been answered completely. Education and training of reference staff needs to ensure that they not only know the reference sources but understand the importance of the reference interview, monitored referrals, and follow up, and of interpersonal communication in the reference process. The criteria for providing in-person and virtual reference services are readily available and can be used in training library staff

2.4.3. ORGANIZATION OF LIBRARY RESOURCES

Organization of a library collection can reasonably be regarded as the first stage in the process of accessing and retrieving materials for use. The challenge to the librarian is to develop a collection that can be accessed physically with convenience. The classification scheme used to organize resources should be well understood by the user if effective use of the library is to be achieved. Materials should be shelved on time and in their correct places. Shelve reading should be done frequently to ensure that the sequence is kept. But Njue (1995:35) in his study on use of resources at Kenyatta University found out that 28.9% of users were not familiar with the classification arrangement in their library. A study carried out by Olaka (1999) at the U.O.N law library showed that law students tend not to use some resources if they are arranged in a way that they cannot comprehend.

Bennet (1979) also notes that shelf reading is done badly in most libraries if not ignored altogether. In his study on the value of shelving at the U.O.N library, Chege(1993) found out that the state of shelving was pathetic. Books lied on tables and trolleys for very long periods thus denying users access. Rukwaro (1998:18) in her study on factors influencing the utilization of library resources at Kenyatta University, found out that shelving was very poorly done , Njue(1995:39) concurs with her in his study at the same University.

He points out that book location from the shelves was an uphill task for the majority of the users.

It is therefore important that libraries ensure that books are re-shelved as soon as possible after they have been returned from circulation. This is especially for those users who are not seeking a specific title and locate their books by browsing along the shelves. Prompt reshelving of returned books improves availability of books on the shelves, hence provides users with a wider selection of browsing.

2.4.4 SIGNS AND GUIDES

Clear signage is of the utmost importance, not only to enable users to find their way round the building but also to locate materials easily (Brophy, 2000). Bosman, E (1997) carried out a study on creating the user –friendly library by evaluating patron perception of signage in American libraries. 39.9% gave signs an overall rating of 3. 26.5% could locate materials fairly easily, 30.9% had a lot of difficulty locating materials. He found out that the most difficult location signs for users to find was government documents, archives and bound periodicals. For instance 36.9% of juniors and 31.5% of seniors found government documents rather difficult to locate. Locating of archives was even worse, although 30.9% rated archives 3, in locating, 33.8% had extreme difficulty. In *locating periodicals* 30.4% rated *locating of bound periodicals* as easy .24.5% of users found it difficult to locate periodicals. The written comments were even more revealing. Most users suggested large, brightly colored signs. Many of the comments further emphasized the problems encountered when attempting to locate books and periodicals. Here are some of the comments; **its hard to understand the No.s and where they are**

at; Its difficult to figure out what floor to go to I usually have to ask: I have trouble where the books are shelved, where the L.c numbers start up again once they stop at the end of the shelf.

2.5 STAFF RELATED BARRIERS

Whether service oriented or production oriented, the performance of any organization depends heavily on the performance of its human resources (Jain 2005).

Library personnel act as a major gateway to information resources. When users are not able to access materials through other channels like the catalogue, they turn to the staff for assistance. The academic librarian of the 21st century is expected to be quite a versatile creature. His /Her most important characteristics are, very good interpersonal and communication skills, language proficiency, team working skills, user friendliness and customer orientation, IT skills and subject knowledge/profiling (Blazej and Marcinek 1999). A pleasant and trained staff is a vital factor in establishing and maintaining a good public image of the library. Such a staff, combined with pleasant appearance, well groomed and friendly smile creates a good impression of libraries to its patrons. The staff need to be approachable and not the type of staff who pose to be forever busy (Mutwiri 2005:36). A study done by Jain (2005) in Botswana: A total of 71 questionnaires were distributed and 66 were collected back. The data was collected using personal visits and postal questionnaires. The data from the personal visits obtained 100 per cent response rate and the postal surveys secured 86.4 per cent response. Overall data was collected with a response rate of 93 per cent. This study sought to discover what the main qualities required to provide efficient library services are. The findings of the study revealed that

commitment received the highest response score of 91 per cent, the other critical qualities were: capability (79 per cent), innovative thinking (74 per cent), understanding of the library's aims and objectives (71 per cent), a positive work attitude (85 per cent), compliance with rules and regulations (52 per cent), enthusiasm (69 per cent), stamina (49 per cent), strategic approach and thinking (70 per cent) were also well perceived. In a study done by Mahmood and et.al(2006) in Pakistan libraries revealed that, most of the libraries have inadequate professional and non-professional staff, the staffing of libraries being in no way linked with consumer demand or size of book stock. The people input in university libraries is comparatively better, but there is a lack of support staff in college libraries and small public libraries are without any professional staff. The brain drain in the field of librarianship has badly affected staff availability in Pakistan. Due to the lack of competent personnel in the profession for top managerial positions, most of universities and other large libraries are without a full-fledged librarian.

Perceptions of being unwelcome or librarians being unapproachable form a barrier to using library resources by hindering the asking of initial or follow-up queries for help or information. More importantly: The lack of ... awareness about the potential of librarians and libraries, not the stereotype about how librarians look, are formidable barriers to equitable access to information. It is why increased recognition of the value of information has not brought with it-increased recognition of the librarian as an information profession (Tracy, Green 1994). Mutwiri (2005) carried a study in 4 Kenyan Universities, Kenyatta, Nairobi, African Nazarene and Daystar on library- patron relationship (sample size 100;responding all 100%) and found out on knowledge of staff 54% of users indicated that they found the library staff knowledgeable, 21% staff

unknowledgeable, 25% said staff didn't know their work. On the side of staff relationship to users, she found out that 62% felt free with staff assistance, 38% said they didn't feel free to approach any member of staff for assistance. Asked why they didn't approach staff for assistance, the responses were; they are hostile and unfriendly, not courteous, arrogant, rude and too cold, not knowledgeable and could feel embarrassed if asked, were unlikely to help, some are passive and less concerned and others look at you like you are disturbing them. To improve on the area of staff competence, Malhan (2006) in his study done on developing corporate culture in the Indian University libraries) he noted that, to maintain the competitive level of university library professionals, continuing education and need-based training of library staff will be important requirement. Continuing education and training of staff will not only help to enhance their capacity for work performance and ensure efficiency but also help to quickly adopt and properly adapt with new information handling methods, knowledge management tools and technologies and make effective use of contemporary information systems and services. Muruli 1992 agrees with Malhan and asserts that it is imperative that library staff are trained in order to meet challenges of change in knowledge and their profession

2.6 USER RELATED BARRIERS

Users of the academic library have a very important role in determining access and retrieval of information resources. The user should be aware of the resources the library has, he should be skilled on how to use information retrieval tools and should understand technical terms used to describe materials. They should have positive attitudes towards

the library and the library staff and avoid behaviors that deny others access to materials e.g. mutilating or hiding resources. A good relationship should exist between the user and the library personnel and a positive attitude should be maintained between the two.

Majid and etal (2001) carried out a study on user perceptions of library effectiveness in Malaysian Agricultural libraries, on the following areas,

Participation in user education programmes and perception of library effectiveness

It was found that nearly 60 per cent of the respondents who had participated in user education programmes considered their library as “effective” or “very effective” in meeting their information needs. On the contrary, only 38.2 per cent of the respondents who did not attend any user education programme assessed their library as “effective” or “very effective”. It appeared that participation in user education programmes might have contributed in enhancing the perception of respondents of their library effectiveness. After such training, these respondents might have started using library collections and facilities more effectively resulting in their enhanced satisfaction

Library use skills of respondents and perception of library effectiveness

It was found that, of the 65 respondents with “very good” or “excellent” library use skills, 33 (50.8 per cent) perceived their library as “effective” or “very effective” in meeting their information needs, whereas 40.4 per cent of the participants with “fair” or “poor” library use skills considered their library as “effective” or “very effective”. This translates

to mean that those users who had skills on how to use the library had no problem with using library collections and facilities.

Relationship between type of assistance sought and perception of library effectiveness

Respondents were asked to indicate how frequently they sought assistance from library staff for using library collections, services and facilities. It was found that those participants who often sought help from the library staff in finding the needed materials perceived their library as “very effective” in meeting their information needs. Almost the same trend was observed for other categories of assistance where those respondents who sought assistance from library staff gave better assessment to their library. It appears that the availability of assistance from library staff for various purposes is likely to enhance the image of the library for effectively meeting the information needs of its users.

Relationship between communication problems and perception of library effectiveness

Respondents were asked if they encountered any problems in explaining their information needs to those library staff who lacked subject background. It was found that over 85 per cent of the respondents who did not face any communication problems perceived their library either as “effective” or “very effective”. On the contrary, 40 per cent of the respondents who faced difficulties in explaining their information needs to non-subject specialist librarians perceived their library as “ineffective” or “very ineffective”.. It appears that the availability of subject specialists in agricultural libraries

is likely to improve communication with scientists, thus enhancing the chances to effectively meet their information needs.

Adequacy of promotional activities and perception of library effectiveness

The opinion of respondents was sought about the adequacy of promotional activities undertaken by their library for introducing and publicizing library materials, services and facilities. A split response was received where 48.5 per cent of the respondents felt that their library was adequately promoting information resources, services and facilities, while the remaining 51.5 per cent disagreed with it. Assessment of respondents of the adequacy of library promotional activities was cross-tabulated with their perception of library effectiveness. A positive relationship was found between the adequacy of promotional activities and perception of library effectiveness. Of the 111 respondents who considered library promotional activities as “adequate”, 73 (65.8 per cent) perceived their library as “effective” or “very effective” in meeting their information needs. Only three (2.7 per cent) respondents in this category considered their library as “ineffective” or “very ineffective”.. It appears that those patrons who get adequate information about library resources, services and facilities are more likely to perceive their library as effective in meeting their information needs. Users perception and attitude can affect use of library resources, they can regard a library as friendly or unfriendly and thus use or not use the library, if for instance they believe the library personnel are unapproachable, they will not bother to ask them for assistance on how to locate certain materials. A study done by Green (1994) on Images and Perceptions as Barriers to the Use of Library Staff

and Services in U.K and American libraries found out that lack of awareness even among users of additional services is a barrier to fuller library use. An awareness of services, such as interlibrary loans, art loans, book clubs, foreign language tapes and various reading and adult learning classes, was found in less than a third of US public library users, and usage of these services was even lower. 30% per cent of UK academic researchers did not know whether their “central library” had access to an external database service. Ten per cent of teenage users of public libraries were unaware of a teenage collection in their library, a figure that rose to 21 per cent of 16-year-olds the group holding the least favorable image of libraries and librarians. Over-generous perceptions of what libraries can offer can also form a barrier. (Green,1994),suggests that the images and perceptions that have been discussed as barriers can be altered and controlled to increase the use of libraries and librarians, but not just by title changes to library units. Marketing and promotion activities applied effectively will increase value, status and awareness, and will create realistic expectations and use of services and staff. Other options are outreach, liaison and user education schemes and campaigns (Green, 1994) He however notes that all solutions must recognize that each library has different combinations of barriers and problems affecting usage, just as individuals have multiple reasons for use or non-use of a library or information service. Any strategy must overcome barriers of image and perception to make libraries and librarians “treasured assets” within an organization or community, and important in an “individual’s information gathering system. To improve the use of library resources ,in her study on library –patron relationship done in Five local Universities in Kenya (Kenyatta, Nairobi, Nazarene and Daystar) Mutwiri(2005:123) recommends that Library user instructions

should be given continuously to all library users, and she emphasizes the need for an evaluation of the library user instructions. She further recommends that Libraries should carry out Marketing of their services to increase awareness of the services offered. (Pgs 124) .Adeyoyin(2005pp.494-507) also in his study on strategic planning for marketing library services states that, a major marketing campaign is necessary to increase awareness and educate the library users about library resources while appropriate promotional materials are created. This becomes imperative, as the mandate now is to change the perceptions of the library.

2.7 MULTI-MEDIA RELATED BARRIERS.

Multimedia has been defined as

A combination of two or more digital media (text, graphics, audio, animation, video, etc.) used in a computer application or data, file, such as an online encyclopedia, computer game, or web site. Multimedia applications are often interactive. Synonymous in this sense with *digital media*. In a more general sense, any program, presentation, or computer application in which two or more communication media are used simultaneously or in close association, for example, slides with recorded sound. Still images accompanying text are considered illustration. **Source** <http://lu.com/odlis/odlis>

Electronic resources are invaluable research tools that complement print-based resources in any traditional library. Electronic resources provide access to information that might be restricted to the user because of geographical location or finances. They also provide access to current information as these are often updated frequently. Through their various search techniques, electronic resources provide extensive links to explore additional

resources or related content. In addition, electronic resources are convenient to use since users are able to access information from the library, internet café, offices or at times from the comfort of their homes at any time of the day (Dadzie, 2005). However, these facilities have had major challenges in using them. Dadzie carried out a study on Electronic resources: access and usage at Ashesi University College .The study then sought to find out the main problems users had with accessing electronic resources. 33 per cent of respondents indicated inadequate PCs; 28 per cent indicated lack of information about how to use electronic resources; 16 per cent indicated lack of time to acquire skills needed to use resources. It was quite obvious that one of the barriers to electronic resources was the inadequate number of PCs. To minimize this problem, he suggested a scheme whereby students would be able to pay for their own laptops on installment basis should be encouraged. Ali Naushed (2005pp.691-700) also carried out a study on the use of electronic resources at IIT Delhi Library: a study of search behaviors (The Indian Institute of Technology, Delhi) In India, he sought out to find the following, awareness of electronic resources, reasons that discourage users from accessing the electronic resources, barriers facing electronic information services and the status of the electronic infrastructure facilities, and found out the following

Awareness of electronic Information service

Awareness indicated that 285 (95 per cent) of users were aware about the EIS provided by the library where as 5 per cent of respondents were not aware. A majority of the users

(75 per cent) were aware about the CD-ROM services provided by the library through intranet, while 15 per cent said they were not at all aware.

Reasons that discourage users from accessing EIS

Respondents were asked to indicate which factor would discourage them from accessing EIS. The choices provided by the questionnaire. Out of 300 respondents, the most common reasons cited for not using EIS was lack of printing facilities (41 per cent) and trained staff (34 per cent). Some 22 per cent of the respondents indicated that an inadequate telecommunication infrastructure (such as slow downloading, non-availability of connectivity, etc.) was a problem, while 17 per cent expressed the opinion that the lack of maintenance was the reason for not showing much interest to visit EIS. Moreover, about 14 per cent of users revealed other reasons such as lack of enough information relevant to their interests and a lack of familiarity to search electronic information.

Barriers facing by the EIS users

Answering to the question regarding difficulties faced by the users, a large majority (41 per cent) had absolutely no difficulties in using the ERL service. 20 per cent of users faced lack of knowledge about the resources followed by guidance/technical (17 per cent) and slow downloading (13 per cent). He suggested this could be due to lack of a bulletin board service, inadequate terminals and printers and shortage of trained staff in the library.

Infrastructure facilities

Out of 300 users, 43 per cent said that the numbers of nodes available for EIS services were adequate, while 57 per cent expressed the view that the nodes were inadequate to meet their information needs. Similarly, a majority of (63 per cent) users indicated that the printing facility was not sufficient to fulfill their needs, although 37 per cent of users did think it was sufficient. In the case of multimedia facility, 46 per cent of users were satisfied while 54 per cent were not. In order to improve the information facilities, services, and user training programs in IITD Library, for the effective use of library services, Ali has made the following suggestions, that user training is essential for the better use of electronic resources in the library since the majority of the scientists are searching electronic literature on their own. The EIS users should be taught about the advanced search strategies and the use of controlled vocabulary to make the electronic search process much easier. IIT library should start a bulletin board service for posting messages and announcements to inform ERL users about new electronic scientific resources. The IIT should provide subscriptions to more electronic primary and secondary sources rather concentrating on consortiums of e-journals. Since the scientists are experiencing problems in gathering information, the most suitable measures should be taken to overcome this such as increasing the number of terminals and printers. The library should identify the non-users of electronic information sources and proper steps should be taken to convert them into potential users of the EIS.

Katz and Aspden (1997) carried out a study on motivations for and barriers to Internet usage and found out major barriers include cost and difficulties in understanding how to

use the Internet. They concluded that the results of the survey indicated that people strongly desire an easier-to-use Internet and *Users wanted traffic and navigation problems addressed* . Results indicated that the key concerns of users were primarily traffic and navigation problems, with cost a distant third. When asked, "If there could be one improvement in the Internet, what would that be?," respondents focused on making the Internet easier to use. Two-fifths of respondents said "make the Internet more user-friendly," or "easy/improved access," "having a map address" or "more powerful search commands." These improvements address the navigation problems mentioned above. One in nine users wanted "greater speed in accessing information," addressing the traffic problems.

Research gap

The reviewed literature show that although much has been done on information access and retrieval in academic libraries, nothing has been done on the barriers users face while accessing and retrieving information resources. It is important to find out what these barriers are since they can affect information use. In the reviewed literature, no study was done to fourth years and postgraduates on the barriers they face when accessing and retrieving resources. These categories of users require resources to write their dissertations and theses, it is very important that they get these resources with minimum barriers. The study therefore seeks to fill the knowledge gaps and establish the current status of the situation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The aim of the study was to explore and report on the situation in University libraries with regard to barriers users face while accessing and retrieving information. And also to describe the effects this has on library use. To achieve this, this chapter describes the methodology that was used. This included, the area of study, research design, study population, sampling method. It also showed the research instruments, their validity and reliability, analysis techniques, ethical issues, limitation of the study and quality control.

3.2 Area of study and locale

The study was carried out in Nairobi university library. It covered four of the University's libraries, which were, Medical library, ADD(Architecture, Design and Development) library, Parklands library and the main library, popularly known as JomoKenyattaMemorial Library. All these libraries are within Nairobi city.

3.3 Research design

The study was an exploratory research, which sought to explore the barriers users face when accessing and retrieving information resources in academic libraries. This area had not attracted much attention in public academic libraries and thus the need for the researcher to explore. It was mainly qualitative though quantitative elements were included and were expressed in percentages. Qualitative research seeks to describe and analyze the values, rituals, symbols, belief, perceptions and emotions of people. This type

of research was opted for because it sought to find out the reasons behind the problem of study-“barriers in accessing and retrieving resources in academic libraries’. People beliefs and views cannot be quantified. To ensure reliability and validity of the study, the researcher ensured that data was not manipulated.

3.4 Study population

The study population was comprised of students of Nairobi University and library staff.

The researcher selected students and staff in four libraries of Nairobi University. The students targeted were undergraduates in fourth year undertaking bachelors degrees. Post graduates students undertaking masters’ degrees. These were, In Parklands library, students pursuing bachelors and masters degrees in Law, In Medical library, students pursuing bachelors and masters degrees in medicine, in ADD library students pursuing bachelors and masters degree in design and architecture and in JKML students pursuing bachelors and Masters degrees in Arts. The researcher also targeted library staff; those targeted were those in close contact with the students at the service points and those who had served for the longest time, since they had long experience in serving the students and therefore had knowledge of the users daily experiences.

These students were targeted because they use the library intensively for research in order to write their dissertations and thesis and thus they are familiar with the barriers they face when accessing resources.

3.5 Sampling design, size and procedure

The study used a non-probability sampling method called purposive sampling. In this method the researcher has absolute power to select the sample size suitable for the study (Selltiz, 1959:520). According to Nachmias (1996:184), purposive sampling gives the researcher a chance to select subjectively and have a fair representation of the population. The researcher opted for purposive sampling because it met the needs of the study and allowed the researcher a small sample size suitable for an in-depth investigation. In selecting the respondents, the researcher used snowball sampling. In social sciences research, **snowball sampling** is a technique for developing a research sample where existing study subjects recruit future subjects from among their acquaintances. (available online at [http://en.wikipedia.org/wiki/snowball sampling](http://en.wikipedia.org/wiki/snowball_sampling)).

The researcher preferred this method due to its cost effectiveness in terms of time to be spent in locating the right respondents.

Sample size

The approximate population of the four Libraries under study (staff and users) was 1,040. Mugenda and Mugenda (1999) suggests that 10% of the accessible population is adequate to serve as study sample. The researcher therefore took 10% of this population. Thus her sample size was 104 respondents. She considered this to be a representative of the population under study for analysis of subgroups and for statistical analysis and large enough to make generalisation.

Sampling procedure

In each of the four libraries selected, the researcher used a preferred library staff to identify 4 (four) undergraduates in fourth year who each in turn identified four (4) others in their year, 1 (one) Postgraduate (Masters) who identified three (3) of their yearmates. The

researcher asked the staff choosing the respondents to select respondents who heavily used the library whom they had identified earlier through daily observation. The researcher then asked the identified respondents for the contacts of the chosen respondents so as to seek their acceptance to participate. Library personnel were also included in the sample and the researcher personally selected two(2) of the longest serving staff members in each library at service points.

The researcher therefore had 104 respondents as shown below

.20 undergraduates(4th years) from each library thus 80

.4 Postgraduate students(Masters) from each library thus 16

.2 staff members(Longest serving)from each library thus 8

To ensure sample validity, the researcher used secondary data from similar studies to compare with the current study and then highlighted whether the findings were supported or contradicted by other studies and gave possible reasons for such an outcome.

3.6 Methods of data collection

The researcher applied methodological triangulation to collect data. The researcher used different methods of data collection which were; questionnaire, observation and literature as no single method can adequately solve any problem under study. The following instruments were used.

3.6.1 Instruments of data collection

Questionnaire.

The study used questionnaires as the chief method of data collection. The justification of using this as the main method was that the University consists of highly literate members who understood and identified with the issues raised. None of the respondents asked for help in filling the questionnaire. The questionnaire was also found to be more appropriate for this kind of study as compared to the interview for it enabled the researcher to get responses from a relatively large population within the limited specified time; it was also believed that it would provide an opportunity for respondents to answer at their own leisure. There were two questionnaires: one for students (both post and undergraduates) the second for library staff at service points. The questionnaires had open-ended and closed ended questions. Closed ended questions provided precise, often quantitative data, while open-ended questions provided qualitative data. The majority of the questions were closed ended, following the recommendation and findings from the pretext of the questionnaire.

Observation method was also used to extract information and get insight into issues involved. Users of information resources (print and non –print) were observed causally as they used the resources and the researcher could occasionally ask them the problems they were going through as they used the resources. For this purpose, a diary was maintained during the course of data collection and all-important points related to the study were noted down. Many sentiments expressed informally were confirmed by the research findings. (See appendix 4).

Literature review. Relevant literature was explored. The theoretical Model of information flow by Shannon and Weaver was examined closely to provide a platform for this study. Studies conducted on information access and retrieval were found and scrutinized for relevance. The researcher also scrutinized records, which showed how information was used. All this gave the researcher an insight into the problem under study and helped her in acquiring a clear perspective thus placing views, ideas and suggestions received into context.

3.6.2 Instruments validity and reliability

The questionnaires were pre-tested to establish their validity through a pilot study, which was conducted by the researcher before the actual study. Mulusa (1988), suggests that about 10 cases of the target population or a similar population are adequate for a pilot study. As such, the pilot questionnaires were administered to 12 members of the study population (Undergraduates-4, Postgraduates-4 and 4-library staff) from the four selected libraries. The pilot respondents were however not included in the final studied sample population to avoid biasness. The purpose of the pilot study was aimed at establishing language difficulties (jargon), appropriate computational capabilities, ethical issues, organization of the content to ensure there was a flow of information and established whether the content used in the questionnaire was relevant. The pilot study helped the researcher to focus more on the central question in the project. After the pilot study the relevance of each item was evaluated and clarity of instructions evaluated.

3.7 Data Analysis

Data collected was edited, categorized, coded and analyzed using statistical package for the social sciences (SPSS). This package was found to be an excellent tool of data analysis due to its suitable features, ease and speed in manipulating data in a short time since the researcher had at her disposal. Quantitative data was finally interpreted using descriptive statistics mainly through the tables, frequencies, percentages dispersion (range and standard deviation) and central tendency statistics (mean, mode and median). Qualitative analysis was used to analyze qualitative data such as opinions, attitudes and perceptions. To measure attitude, the researcher used a likert scale. Data collected through Observation and documents was merged to the main data according to the study objectives. This analysis enabled the researcher to draw conclusions and make recommendations on the study. After completion of analysis, a draft report was prepared and handed to the supervisors for review. Corrections and relevant changes will be made before the final report will be submitted for examination and eventual award of degree.

3.8 Quality control

Unlike quantitative research where there will be statistical tests to test validity and reliability, there are no straightforward tests of validity and reliability in a qualitative research. This is the reason why the researcher applied methodological triangulation. Multiple applications of the three types of methods to collect data made it possible to achieve quality control. To enhance this, the researcher also pre-tested the questionnaires which was found to be more appropriate for this kind of study as compared to the interview for it enabled the researcher to get responses from a relatively large population

within the specified time, it was also believed that it would provide an opportunity for respondents to answer at their own leisure. To maintain objectivity, the questionnaires were edited to ensure that data that yielded unnecessary results was not included in the final study questionnaires.

3.9 Ethical issues

To ensure respect, the researcher sought consent of the respondents before they filled the questionnaires through a cover letter. The respondents were offered the opportunity to remain anonymous so as to ensure confidentiality. The questionnaires were only given numbers for coding and tracking purposes to ensure a higher response rate. The researcher also acknowledged all the works copied in the study to avoid plagiarism (academic ethics).

3.10 Limitation of study.

The study only covered one public academic library in Kenya. A study of more than one academic library would have been better so as to bring out the opinions of many users and avoid generalization, but due to financial and time limitations this wish was not possible. Another limitation was that the researcher was collecting data during exam periods. So as not to compromise the data, the researcher waited until the exams were over. ✓

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.1 INTRODUCTION

The study was based on information communication theoretical background developed by Shannon and Weaver. The two showed that effective communication could only take place if there is no distortion (noise) in the flow of information. According to them, information moves from the source to the destination through information channels. In this study, the source are the electronic and non electronic information sources found in libraries, the information channels include the information retrieval tools, the library services, library staff and multi-media facilities. The destination are the users of these resources, who in the study are students of Nairobi University. For information to reach the users, these channels have to be effective. The conceptual framework, show how these information channels (variables) are interdependent. They all work together to determine information access and retrieval. The discussions will therefore be guided by the theoretical and conceptual framework in which the study is based.

This chapter presents and discusses data collected using questionnaires, literature and observation. Data collected was analyzed using statistical package for the social sciences (SPSS) version 10.0. It was interpreted and presented by the use of texts; simple frequencies, percentages, charts and tables then discussed in accordance to the study objectives. The package was found to be an excellent tool for data analysis especially in its speed considering that the researcher had time constraints. The presentation and discussion will be done according to study objectives as follows: presentation and discussion of respondents, response rate; the process of information access and retrieval

and use of alternative resources; Library related barriers; user related barriers; staff related barriers and multi-media related barriers.

4.1.1 Background information of the respondents

The researcher administered questionnaires for the study to 104 respondents. Out of the 104 respondents 80 were undergraduates from the four selected libraries (20 from each library), 16 were postgraduate students (4 from each library) and 8 were library staff (2 from each library). The selected libraries were Law library, ADD library, Medical library and the Main Library. The distribution of respondents is given below in table 4.1

Table 4.1 Background distributions of respondents

Background	Number of respondents-104	Percentage
Post graduates	16	15.4
Undergraduates	80	76.9
Library Staff	8	7.7

Source: Field Data

Table 4.1 indicates that 76.9 percent were undergraduates, 15.4 percent were postgraduates and 7.7 percent were library staff. Undergraduates formed the largest percentage. This is because their population is larger than the rest of the respondents.

4.1.2 Rate of response

All the 104 questionnaires were returned, giving the study a 100% response rate

4.2 Students' Questionnaire analysis

This is analyzed, presented and discussed in accordance with the different aspects of the problem being explored. Data has been presented under the following headings

- General over view of information access, retrieval and use
- Library related barriers
- User related barriers
- Staff related barriers
- Multi-media related barriers.

4.3. Information access, retrieval and use of information resources

The study aimed at finding out the barriers users face when accessing and retrieving information resources. To have a general view, the researcher sought to know first whether users used information resources in their libraries.

Figure 2: Status of information use

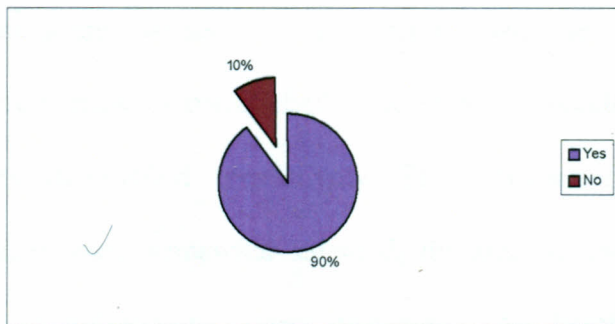


Figure 2 shows that majority of the respondents, 90 percent use their Libraries' information resources. 10 percent said they did not use resources and all of them cited lack of skills on how to access information as the reason for non-use. This indicates that users realize the importance of information resources for their studies. The study sought

to know how the users found the process of accessing and retrieving information since dissatisfaction can act as an indicator of information non-use.

4.3.1 Table 4.2 Satisfaction with the process of accessing and retrieving information resources

Level of satisfaction	Number of respondents	Percentage
Very satisfied	0	0
Satisfied	8	8.3
Somewhat satisfied	48	50
Dissatisfied	16	16.7
Somewhat dissatisfied	24	25
Very dissatisfied	0	0

Source: Field data

From table 4.2, 8.3 percent of the respondents said there were satisfied, 50 percent said they were somewhat satisfied, 16.7 percent said they were dissatisfied, 25 percent said they were somewhat dissatisfied none of the respondents said they were very satisfied and very dissatisfied respectively. The statistics reveal that 92.7 percent of the respondents were somewhat satisfied, dissatisfied and somewhat dissatisfied with the process of information access and retrieval. Dissatisfaction with the process may discourage information use. According to the law of 'least effort', people tend to use ways that are easy to get what they want. So users may avoid using resources if they find the process unfriendly.

4.3.2 Use of alternative information providers and reason for use

If libraries offer information services that are not satisfactory, users will tend to turn to other information providers (Mutwiri, 2005). The study sought to know whether respondents used resources from other information providers, as this could be an indication of dissatisfactory information services offered by their libraries

Table 4.3 Use of alternative resources

Use	Number of respondents-96	Percentage
Yes	87	90.6
No	9	9.4

Source: Field Data

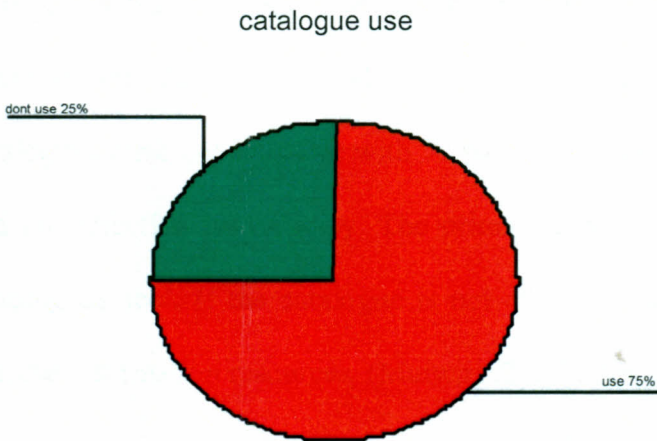
When asked whether they used resources outside their libraries, from the table (4.4) shows that 90.6 percent of respondents used other resources outside their libraries, only 9.4 percent did not use alternative resources. This means a lot of users were turning to other information providers. This implies that libraries of these respondents were not satisfying their users. Asked why they used other resources, respondents gave varied reasons that included; 50 percent said due to ease of use, 75 percent said due to speed of search, 25 percent said it was due to currency of information and 50 percent said it was due to a well-guided stock and the need for precise information. NB; total percentage is over 100% due to multiple responses.

4.4 LIBRARY RELATED BARRIERS

The study aimed at finding out barriers that were library related which users faced when accessing and retrieving information resources, thus reducing the use of resources. Among other library related barriers, the study sought to find out whether the catalogues were effective in facilitating information access and retrieval. The researcher wanted to establish first whether the respondents used catalogues to access resources and the findings were as shown below

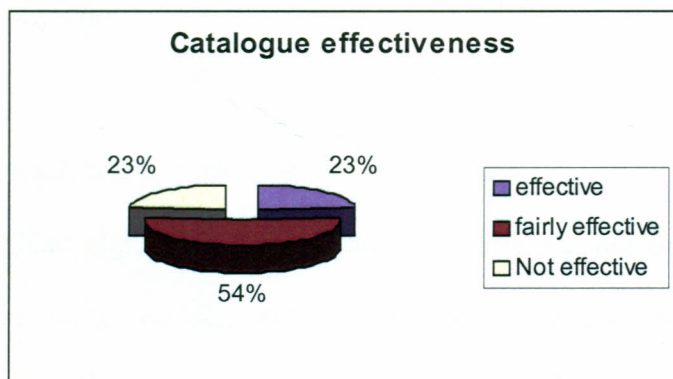
4.4.1 Information retrieval tools and use of information

Figure 3 Use of Information Retrieval tools



From figure 3, its clear that majority of the respondents, 75 percent use information retrieval tools especially the catalogue and 25 percent didn't use. This reveals that respondents were aware of the catalogue as a way of accessing and retrieving information. It is then very important to make the catalogues effective for ineffective catalogue may mislead the users .The study sought to establish how effective this catalogues were since ineffective catalogues could lead to information non use.

Figure 4 Catalogue effectiveness



Source: Field data

Figure 4 shows that majority of the respondents didn't find the catalogues effective; 54 percent felt that the catalogue was fairly effective, 23 percent said the catalogue was effective and 23 percent said that it was not effective. These findings reveal that catalogues were not effective with 77 percent saying the catalogues were fairly effective and not effective respectively. The primary role of the library catalogue is to act as a 'finding device'. If the catalogue is not effective, users will find it hard to access and retrieve information resources, (Mutwiri, 2005). Asked why they said the catalogues were not effective 50 percent said, some of the cards were missing, 75 percent said there was misfiling and 25 percent said it was not easy to understand how the catalogue was organized. When catalogues are faulty, they no longer act as finding tools thus users can miss the information they need. Thus to facilitate access, libraries need to improve the effectiveness of these tools by monitoring them to ensure that they met the expected standards. If cards are misfiled, they should be re-filed again and if they are missing, they should be replaced. Those who did not use them, 66.7 percent said they used browsing, 100 percent said they asked library staff and 60 percent said they asked their friends. This means that most users then turned to browsing which is not the best method to access

information. It is by chance the users try to get resources when they browse and it is not reliable.

4.4.2. Signs, guides, and information use

Clear signage is of the utmost importance, not only to enable users to find their way round the building but also to locate materials easily (Brophy, 2000). Resources should be well guided to facilitate their access. The study sought to find out the status of signage in the selected libraries.

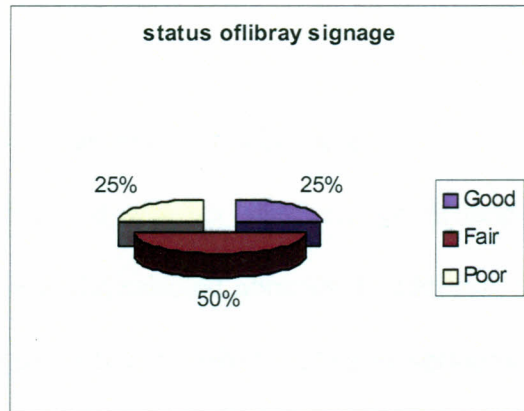
Table 4.4 Ease in finding way to the information resources

Ease	Number of respondents-96	Percentage
Yes	8	8.3
No	88	91.7

Source: Field Data

The above results indicate that 91.7 percent of the studied respondents did not find it easy to locate information resources, while only 8.3 percent found it easy to find their way to the information resources. This reveals that, majority of the respondents did not easily find their way to where information resources were. The effect is that users may not access information due to lack of proper library signage. From observation, these libraries had poor signage of the stock, thus there is need to improve on stock guidance by putting shelf guides to facilitate information access. Those who found it easy were asked to give the status of signage in their libraries

Figure 5: Status of signage



Source: Field data

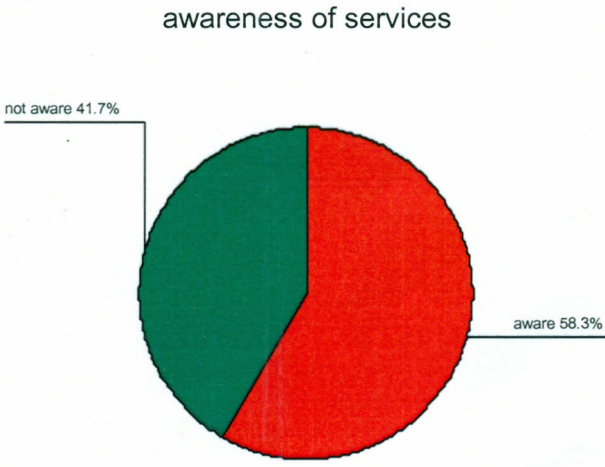
Majority of those who found it easy to find their way around the library said the signage and guidance was fair (50 percent). While 25 percent said signage was good, 25 percent said it was poor. Non-said it was very good. Over 75 percent felt that signage and guidance of library was not good. This could make users not use resources since they may not find what they want. Bosman E (1991) on Patron perception of signage in selected American libraries, found out that only 26.5% of his studied population could locate materials fairly easily due to poor signage of stock Thus there is need to improve on signage to increase information access. Suggesting on what should be done to improve signage and guidance of stock 25 percent said that the library should use large brightly colored signs so that it is clearly visible, 50 percent said that there should be a guidance librarian who can be taking users around the library and 25 percent said that there should be a map outside the library which will guide them to where resources are located. Other

suggestions were that librarians should be friendly in guidance, users should be educated frequently on locations of materials and call numbers should be put on each shelf. Thus, the status of signage in the selected libraries was below average and thus it needs to be improved.

4.4.3 State of the art services and information use

The study sought to find out whether services, which help users access and retrieve resources were available in the selected libraries. In addition, the study sought to find out whether users were aware of the availability of these services. Information resources can be properly used through various library services (Brophy 2000.) The main library services in general include reference, indexing and abstracting, selective dissemination of information literature searches etc. These services should be available to a large extent in libraries to assist users access and retrieve information resources and save their time .

Figure 6: Awareness of available services



Asked whether the above services were available in their libraries, (from Figure 6) 58.3 percent said services were available and 41.7 percent said they were not aware of these services. The findings reveal that though these services are available in most of the selected libraries, most users were not aware of them. 41.7 percent is almost half of the respondents. This category does not use these services, which are very important in helping them access resources. Green T (1994) found out that users did not use services because they were not aware of their existence. Thus libraries should vigorously publicize and promote their services.

4.4.3.1 Evaluation of the library services

Though the services may exist to a certain extent, they should meet the needs of the users to enable them add value. Users were therefore asked to evaluate the services available in their libraries.

Service	Excellent	Very good	Good	Average	Below average	Poor
Reference	0	8.3%	11.7%	33.7%	41.7%	0
Library tour guides	0	0	9.1%	18.2%	54.5%	18.2%
Current awareness	0	16.7%		25%	33.3%	25%
S.D.I	0	20%	10%	20%	30%	20%
Literature search	0	10%	30%	30%	20%	10%
Photocopying	0	10%	10%	0	0	80%
Individual guidance	0	25%	16.7%	8.3%	25%	25%
Abstracting/indexing	0	0	25%	11.7%	41.7%	16.7%

Table 4.5; Evaluation of library services

Source: Field Data

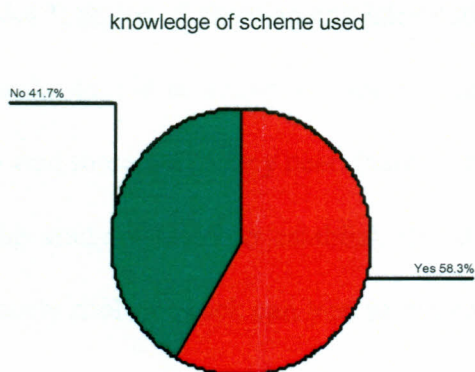
Those who said they were aware of the services were asked to evaluate these services, the above table indicates that most of the services were average and below average. Photocopying services was ranked 80 percent poor, and library tour guides 54.5 percent (below average). Reference services were 33.7 percent (just average). This statistics reveal that, though most of these services existed in the selected libraries, they were average and below average. Users did not consider these services as meeting their information needs. With regard to library services, Nilsen 2006, found out that the three underlying problems resulting in user dissatisfaction were all related to staff behaviour

of: By-passing the reference interview; un-monitored referrals; and failure to ask follow up questions. These services need to be improved to maximize information use.

4.4.4 Stock organization, scheme adopted and information use

The classification scheme used to arrange library stock should be understood by users (Olaka, 1999). If users don't understand how it works they may have problems in getting the information they want. The study sought to find out whether respondents understood the scheme used to organize their resources since failure to understand can lead to non-use of resources.

Figure 7: Knowledge of classification scheme used



From figure 7, 58.3 percent of the respondents said they had knowledge of the scheme used and 41.7 percent said they did not have knowledge of the scheme. This reveals that almost half of the respondents didn't understand the scheme and this could act as a barrier to information access and retrieval. Users who don't know how books are arranged may find it hard to locate them and thus missing the information they want. Olaka (1999) found out that, users had problems using resources because they did not understand how the materials were arranged. There is need therefore to train users on

how the scheme works. Those who said they understood it were asked to state the friendliness of the scheme

Friendliness of the Classification Scheme

Asked how friendly the scheme was 50 percent said it was friendly, 25 percent said it was confusing and 25 percent said it was unfriendly. Although majority of the respondents said it was friendly, the 35.5 percent who said it was confusing and unfriendly cannot be ignored. Thus to make the scheme user friendly and not act as a barrier to information access and retrieval there is need to explain to the users continuously how it works in their user education programmes.

4.4.4.1: Status of shelving and information use

Books should be returned back to where they should be after use. This will enable users to find them when they need them. When books are not shelved, users may not find them. The study wanted to establish the status of shelving in the selected libraries, since a poorly shelved stock can lead to information non-use (Chege, 1993.)

Table 4.6 Status of shelving (source:field data)

Status	Number of respondents-96	Percentage
V. Good	0	0
Good	32	33.3%
Average	40	41.7%
Poor	24	25 %
V.poor	0	0

33.3 percent said the status of shelving was good, 41.7 percent said it was average, 25 percent said it was poor, non-said it was very good or poor. The statistics reveal that the status of shelving in the selected libraries is average. It is not very good nor very poor. This means that it was not up to the users' expectation and they could fail to use resources due to poor shelving. Chege (1993) found out that books were not properly shelved in academic libraries and were left lying on desks and trolleys. This reduced information use. This status needs to be improved since it can affect information access and retrieval. This finding agree with Rukwaro's findings, (1998:18) in her study on factors influencing the utilization of library resources at Kenyatta University, which found out that shelving was poorly done. There is need then to improve on shelving in order to facilitate access to information resources. Asked what can be done to improve the status of shelving, 60 percent of the respondents said students on work study should be involved, 20 percent said staff should be contracted to do full time shelving and 20 percent said time for shelving should be increased.

USER RELATED BARRIERS

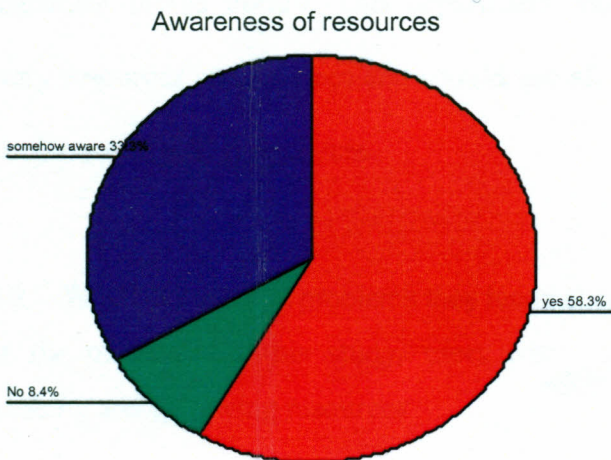
One of the pillars on which the library stands on is the user; users are precious to the libraries. Library services should be based on the requirements of the users. The need for information is an important element on which services should be based. All the organized services provided by the libraries assist users' overall development- physical, social, emotional and intellectual (Brophy, 2000). To satisfy their information needs, users need skills on how to access information, they need to be aware of resources available in their

libraries and they need assistance from staff whenever they aren't able to get information resources. Behaviours from their fellow users who mutilate and hide materials should be discouraged. The library should have adequate information technology facilities. This analysis therefore deals with the users' views regarding their perceived barriers that they face when accessing and retrieving information resources. It analyses users awareness of information resources, information seeking methods, perceived barriers when accessing information, rapport between the users and library personnel and an evaluation of personnel and the library.

4.5.1 Awareness of information resources and information use

The study sought to find out whether users were aware of the resources the libraries had, since lack of awareness can be a barrier to information access and retrieval.

Figure 8; Awareness of resources



The above figure indicates that 58.3 percent of the respondents were aware of the resources available in their libraries, 8.3 percent were not aware, 33.3 percent said they were somehow aware. This means that 41.6 percent of the respondents were either

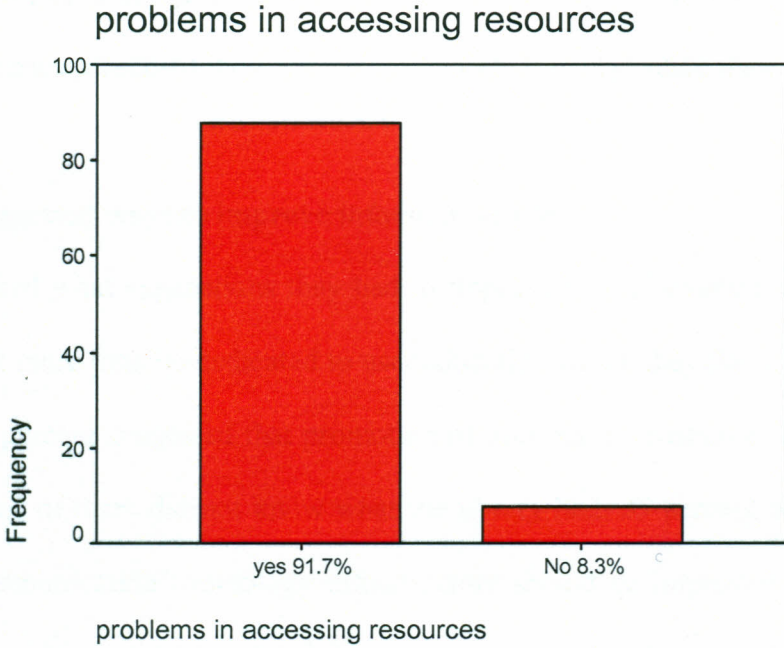
unaware or somehow aware of the resources available in their libraries. This category could fail to use resources due to lack of awareness. Asked why they were not aware of what the library had 100 percent said the library did not publicize their resources and services. A study done by Majid and etal (2001) on user's opinion on the adequacy of promotional activities undertaken by their library for introducing and publicizing library materials, services and facilities, in Malaysian Agricultural libraries, 48.5 percent of the respondents felt that their library was adequately promoting information resources, services and facilities, while the remaining 51.5 percent disagreed with them. This means lack of publicity of services could lead to non-use.

Those who were aware, were asked how they became aware of the resources, 25 percent said through the catalogue, 25 percent through lecturers' lists and 50 percent said through their friends. None of the respondents said that they knew through publicity of resources. This shows the selected libraries did not publicize their resources. There is need to create more awareness of what services and resources the library has through a marketing department in the library. This department should be fully involved with marketing library resources and services and should use all the available methods like brochures to promote services and resources.

4.5.2 Whether and what problems they faced accessing and retrieving resources

For the purposes of this study, users were asked what problems they faced when accessing and retrieving resources

Figure 9; problems faced when accessing and retrieving information resources



The above figure shows 91.7 percent of the respondents said they faced problems when accessing and retrieving resources, only 8.3 percent said they did not. This reveals that a very high percentage of the studied population faced problems when accessing information resources. It is important to know the nature of the problems users face as defined by them, so as to devise the right strategies to solve them.

Problems faced when accessing resources

The study sought to find out in general, what problems respondents faced when accessing and retrieving information resources. 50 percent said they lacked skills on how to access information resources, 25 percent said the use of technical jargons in describing resources, 15 percent said the problem of their colleagues hiding and mutilating materials and 10 percent said that library staff weren't helpful in assisting. These findings show most of the users barriers were on how to use information resources. Green, (1994)

observes that users of libraries had problems using services due to lack of skills and their perceptions about libraries. He found out that those users who had skills on how to use libraries perceived their libraries to be user friendly unlike their counter parts.

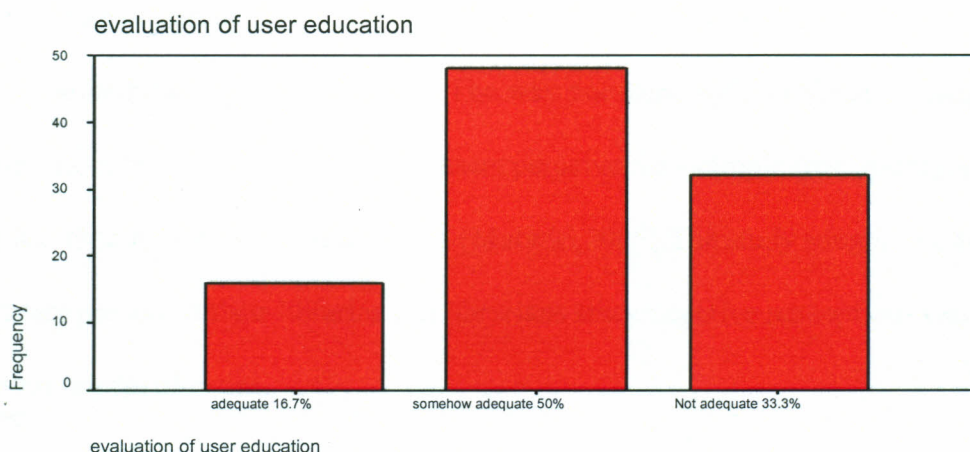
Suggested ways to improve information use

Asked what suggestions they had to improve the information use, 15 percent suggested that more time be dedicated to user education which they felt was not given enough time. 35 percent suggested that promotion of information resources should be improved since some of them did not know what the library had; 35 percent suggested that information communication technology infrastructure should be improved because Internet was too slow. 15 percent suggested that users caught hiding and mutilating resources should be barred from using the library.

4.5.3 The status of user education

The selected libraries had all admitted that Information literacy programmes were available in their libraries, but the researcher wanted to know whether the respondents found these programmes useful. The researcher was aware that the training was offered to first years for one semester. The researcher had also established from the relevant authorities that the library management did not take these programmes seriously. The study therefore sort to establish users view on the adequacy of these programme.

Figure 10:User education evaluation



From Figure 8; 50 percent said it was somehow adequate, 16.7 percent said it was adequate and 33.3 percent said it was not adequate. Thus 83.3 percent felt that, the user education was somehow and not adequate. Its clear that the user education was not satisfying users in these libraries to a very large extent. This programme is meant to equip users with various aspects on library and information use. If users felt this training was not adequate, then it implies that they missed some skills on how to access information. This denied them effective utilization of resources and services. In her study, Mutwiri (2005:123) found out that user education programmes were not well done and she recommended that library user instructions should be given continuously to all library users, she emphasizes the need for an evaluation of the library user instructions. It is important that Universities take the IL programmes seriously. It should be made compulsory so that all users can attend. If possible, it should be told in all years so as to keep reminding users what to do. Respondents were asked why they held such views about the IL, 50 percent said the user education was only provided once when they joined the university and did not cover all aspects on how to use the library, 50 percent said it was not very comprehensive and it omitted key areas.

4.5.4 Users perception on their library, librarians and information use

Oxford's student dictionary of English 2001, defines 'to perceive' as to understand or think of something in a particular way. The way one thinks of somebody or something determines how they relate to them. If users perceive for example their library as complex, then they may avoid to visit it (Mutwiri,2005).The study sought to establish how users perceived their libraries and librarians since negative perceptions can have effect on information use.

Table 4.7:Users attitudes to libraries and librarians

Statement	Str. agree	Agree	Uncertain	Disagree	St.disagree
Libraries are not easy to use	0	50%	16.7%	33.3%	0
Its easy to find your way in the library	8.3%	25%	58.3%	16.7%	0
Academic libraries only store books	16.7%	25%	8.3%	25%	33.3%
Libraries don't promote resources	25%	33.3%	8.3%	16.7%	16.7%
Librarians aren't friendly	8.3%	8.3%	16.7%	33.3%	33.3%
I wouldn't expect a library staff to be able to supply me with the information needed	0	8.3%	25%	50%	16.7%
If I can find a book I would ask library staff to assist	33.3%	41.7%	25%	0	0
Library staff are usually unavailable for assistance	0	0	41.7%	50%	8.3%

Source: Field data

The general feeling of the respondents on their libraries and librarians were that, the libraries were not properly guided with 50 percent saying it was not easy to find their way in the library. 33.3 percent felt that libraries did not promote their services. 25 percent felt that libraries just store books. On staff, the general feeling was that most of the staff,

50 percent were not sure whether staff were available to offer assistance. However, it should be noted that most respondents acknowledged that library staff were friendly, though 50 percent felt that library staff could not supply all the information they needed. This reveals that, the users saw their libraries as not well stocked and guided. They also found the librarians as not able to answer all their questions. With these perceptions, users may not seek the help of librarians since they think they cannot answer their questions. On the other hand, they may avoid to use the libraries since they perceive that they are not well guided and stocked. This concurs with Majid and etal (2001) study that found out that, negative users' perception on their libraries and librarians affected service use. The study reveals that there is need to improve on users perceptions on their libraries and librarians. Libraries need to guide their libraries and their stock well and librarians need to be more knowledgeable in order to remove the users perceptions that they cannot answer all their questions.

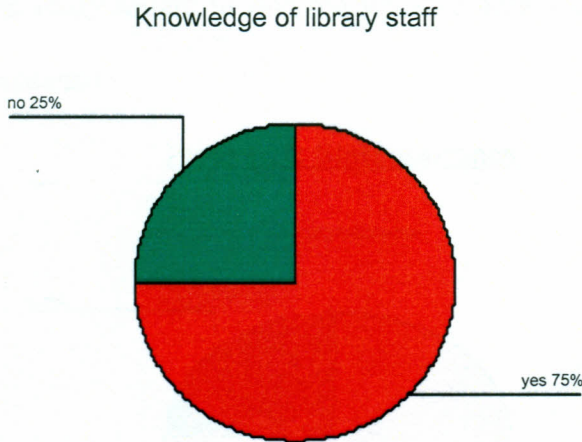
4.6 STAFF RELATED BARRIERS

Any organization's excellent performance is the living result of its people's efficiency, effectiveness, commitment and potential of her human resource. Hence, today, all types of organizations are facing the challenge of how to develop and manage their employees strategically in order to achieve more with less and make optimum use of their potential. (Jain, P 2005). He found out that, the main critical qualities required to provide efficient library services were: enthusiasm, positive attitude, innovative thinking, commitment and a feeling of self-worth.

4.6.1 Users perception on library staff knowledge

For the purpose of this study, the researcher sought to establish whether users found their librarians knowledgeable.

Figure 11:Staff knowledge



The above Figure shows that 75 percent of the respondents felt that library staff were knowledgeable while 25 percent felt they were not knowledgeable. This perception is above average and it is encouraging. But there is still room to improve on this perception for the 25 percent who felt that staff weren't knowledgeable. It is worthy to note that this response is just a perception and cannot be taken as the gospel truth. This should be counter checked with actual staff qualification. However, there is need to increase staff knowledge through training so as to instill them with skills that enable them perform their duties efficiently.

4.6.2 Approachability of staff and information use

Oxford students' dictionary of English (2001) defines 'approachable' as friendly and easy to talk to. If users view library staff as approachable, they will consult them to satisfy their information needs and vice versa.

The study sought to find out whether library users felt free to approach library staff for assistance.

Figure 12: Staff approach

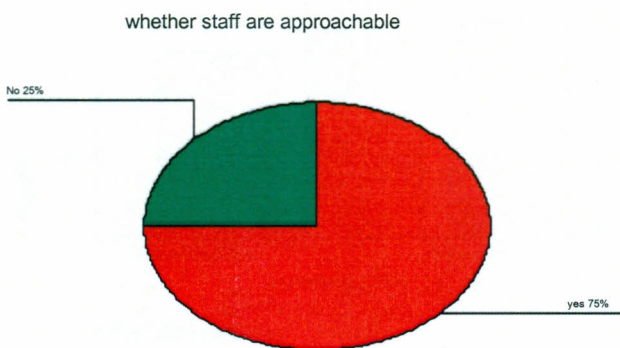
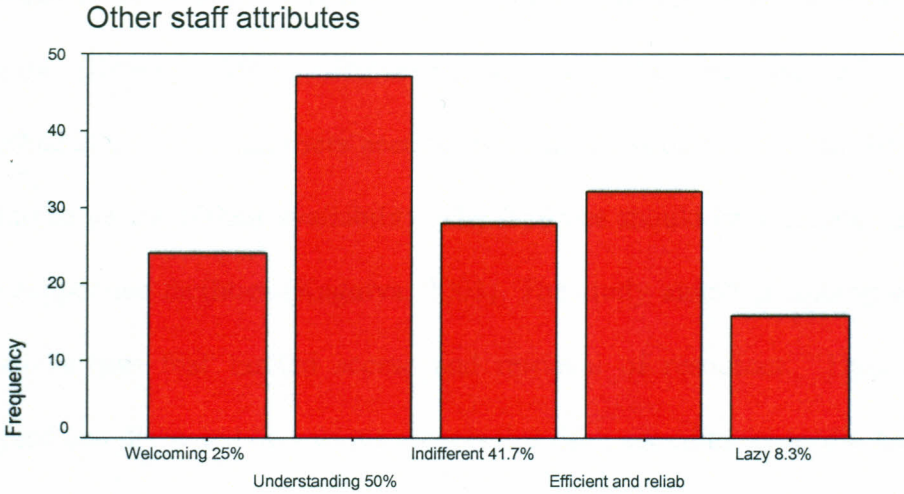


Figure 12, shows majority of the respondents, 75 percent found library staff to be approachable but 25 percent felt that library staff weren't approachable. Although the findings reveal that staff approachability was above average, 25 percent of those who felt that staff weren't approachable comprises a big percentage of respondents who may not use services since they consider staff not approachable. This being a perception, it can be true or false. The actual attribute can only be measured through actual service. However, there is need to improve on the relationship between users and staff because it can lead to information non-use if it is poor. Judith and Felice (2006) found out that staff did not have good relationship with their patrons. They said there was need in training staff in order to improve the relationship between information providers and users.

4.6.3 Evaluation of other library staff attributes and information use

For the purposes of this study, users were asked to evaluate some staff attributes

Figure 13:Other Attributes



Other staff attributes

From the above figure 50 percent said library staff were understanding, 25 percent said they were welcoming and 33.3 percent said they were efficient and reliable. 41.7 percent said they were indifferent and 8.3 percent said staff were lazy. These findings show that, users found staff understanding just average and the level of their efficient and reliability below average. Almost half of the respondents felt that staff were indifferent. Viewing staff along these attributes, users may not approach them for help thus affecting information use. (Mutwiri, 2005) and Jain P(2005) found negative staff attributes affected service delivery. They made users to assume that the librarians will not help them when there is need to seek help from them. Thus negative staff attributes should be modified to positive ones by focusing on the customer needs and fulfilling them.

4.7 MULTI-MEDIA RELATED BARRIERS

We are living in an information technology era. The advancement of technology has made possible to receive and store information in digital, optical and audio-visual forms. One can browse digital and traditional information in a shorter time by using latest information technology, thus the use of multi-media facilities has become panacea for libraries (Brophy, 2000). However, to maximize the use of these facilities, (Naushed,2005) says that users need to have the skills on how to use them and they also need to be aware of their availability .The facilities should be adequate, user friendly and have supportive facilities (Kagoiya, 2003). The study aimed at finding out Multi-media related barriers that limited access and retrieval of resources. Data was presented, analyzed and discussed on various aspects that limit use of multi-media facilities.

4.7.1 Status of multi-media facilities in the libraries and information use

For the purpose of this study, the researcher sought to establish the status of multi-media facilities in the selected libraries.

Figure 14:Status of multi-media facilities

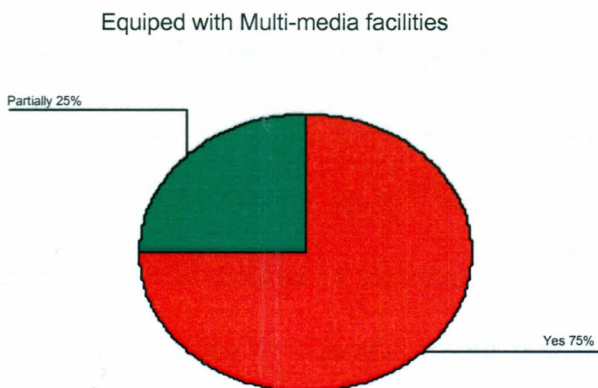


Figure 14 reveals that 75 percent of the surveyed libraries have multi-media facilities; 25 percent were partially equipped. Thus, the status of computerization is heading in the right direction and there is need to fully computerize the 25 percent, which were partially computerized. In this era of ICT, libraries cannot afford to be left behind by this technology that enables users to access and retrieve current information in a very short period.

4.7.2 Status of use of multi-media facilities and information use

Table 4.8 Level of multi-media use

Use	Number of respondents	Percentage
Yes	64	66.7
No	32	33.3

Source: Field data

Asked whether they used the multi-media facilities to access and retrieve information resources, 66.7 percent said they did while 33.3 percent said they did not use. The use of this facility was slightly above average but it needs to be improved. Those who did not use were asked to state why, 50 percent said they found the resources inadequate, 15 percent said they were not aware of the facility and 35 percent said they did not know how to use the facilities. A study done by Alison, K (2007) on the effect of information literacy on the utilization of electronic information resources in selected academic and research institutions in Uganda, found out that availability of information does not necessarily mean actual use. The study showed that some of the available resources had not been utilized at all. This meant that users were not aware of the availability of such

resources, they did not know how to access them, or they did not know what the resources offered. All this called for continued information literacy programmes. He says that IL (information literacy) is very vital in influencing utilization of e-resources. Information professionals were needed to pass on IL skills to library users, while library users should endeavor to find out what information is available online for their consumption. It can be concluded that, the use of electronic resources is still not up to the required level thus the reason for under-utilization of these e-resources.

4.7.3 Barriers when accessing electronic information resources

The study sought to find out in general, what barriers users faced when accessing electronic resources. 74.9 percent said that, few computers were connected to the internet, 74.9 percent said computers were very slow, 58.3 percent said short period was allowed for searching, 83.2 percent said nobody was available to assist them in searching and 41.7 percent said they did not know how to search, while 58.3 percent said that no services were attached to the facility. These findings reveal that the electronic resource use was affected by the mentioned barriers to a very large extent. The problem of lack of assistance in searching was too high, followed by few computers connected to the internet and slow connectivity. Almost half of the users said they did not know how to search e-resources. Lack of services like photocopying was above average. For effective utilization of e-resources, computers connected to the internet should be at a level to allow a large number of users to access information. The connectivity should be fast so that it does not take too long for users to search information that can cause fatigue. For those users who may lack skills, they need to ask for some help. Librarians should

always be available to offer the assistance. It is also important to have support services to this facility like photocopying. Internet information can be too much over the period the user is allowed to search. If photocopying services are available, users can photocopy this information to use later and for future use too. Naushed (2005pp.691-700) on the use of electronic resources at IIT Delhi Library: a study of search behaviors (The Indian Institute of Technology, Delhi) In India, found out that the major problems users faced while accessing electronic resources were, Lack of knowledge of the availability of the resources, lack of familiarity to search electronic information, inadequate telecommunication infrastructure, lack of printing facilities and untrained staff.

4.7.4: Evaluation of electronic information services and information use

Table 4.9 Evaluation of services

Source: Field data

SERVICE	Adequate	Inadequate	Somehow adequate
Number of personal computers	0%	91.7%	8.3%
Internet connectivity	25%	58.4%	16.6%
Assistance	16.6%	83.4%	0%
Support services	8.3%	83.4%	8.3%
Search time	16.6%	58.4%	25%
Skills in search	8.3%	83.4%	8.3%
Publicity of resources	8.3%	91.7%	0%

For the purpose of the study, the respondents were asked to evaluate electronic information services in their libraries. From the above analysis, it is clear that there is inadequacy with all the mentioned services. These services are very important in electronic information use. Their inadequacy would mean that users would not be able to use electronic information.

4.7.5: Training in use and information use

Naushed A (2005) says it is important that users of electronic resources are trained in how to access them. This will enable them retrieve information easily and also know how to evaluate the information accessed. The study therefore sought to establish whether the respondents had any training on electronic information access.

Table 4.10 Level of training

Trained	Number of respondents-96	Percentage
Yes	16	16.6
No	80	83.4

Source: Field data

From the above analysis, majority of the respondents, 83.4 percent were not trained on how to use electronic information resources while only 16.6 percent said they had such training. This reveals that training in electronic information access was done at a very small extent. Most respondents could fail to use electronic information due to lack of training. Kagoiya, R.G (2004) found out that, the use of electronic resources was hampered by lack of skills on how to use them. Other studies, Ali N (2005) and Dadzie PS (2005) had similar findings. There is need to offer training on electronic information use.

4.7.6 Table4.11: Ways to improve electronic information services

SUGGESTION	PERCENTAGE
Increase the number of computers	100
Teach users how to search electronic information	100
Increase bandwidth	58.3
Increase staff to offer assistance	66.7
Increase search time	75
Offer alternative services like printing	58.3
Allow use of individual passwords	33.3
Increase computer pools	66.7
Subscribe to external databases	50

Source: Field data

4.8 Library staff readiness analysis

Respondents were asked to suggest ways of improving electronic information services. All the respondents suggested increasing the number of PCs; 58.3 percent increasing bandwidth, 66.7 percent; providing staff to offer assistance, 75 percent; increasing search time, 58.3 percent ;offering alternative services like printing, 33.3percent; allowing use of individual passwords; 66.7 percent; increasing computer Pools and 50 percent suggested the subscription to external databases. The study reveals that all the services providing electronic information access needed to be improved. Increasing the number of personal computers and offering training received the highest suggestion, followed by increasing search time, providing staff to offer assistance followed, then offering alternative services

like printing while use of personal password came last. Katz and Aspden (1997) study on motivations for and barriers to Internet usage, found out major barriers include cost and difficulties in understanding how to use the Internet. They concluded that the results of the survey indicated that people strongly desire an easier-to-use Internet and users wanted traffic and navigation problems addressed. Results indicated that, the key concerns of users were primarily traffic and navigation problems, with cost a distant third. When asked, "If there could be one improvement in the Internet, what would that be?," respondents focused on making the Internet easier to use. Two-fifths of respondents said "make the Internet more user-friendly," or "easy/improved access," "having a map address" or "more powerful search commands." These improvements address the navigation problems mentioned above. One in nine users wanted "greater speed in accessing information," addressing the traffic problems.

4.8 Library staff questionnaire analysis

4.8.1 Introduction

To know the status of information access and retrieval in academic libraries (barriers that user face), the views of the library personnel were essential. Therefore, the library personnel were asked to provide the state of the art on access and retrieval of information and make their judgment on the aspects listed below.

The staff questionnaire was administered to 8 staff members, 2 from each library selected for study. They were staff specifically at service points and those who had the longest service. The questionnaires were self-administered to the 8 library staff. Data collected

was grouped in accordance with different aspects of the problem being explored as follows

- Library staff commitment
- Library staff training
- Library staff adequacy
- Library staff assistance to users
- Library staff perception of the library resources and use
- Library staff attitude towards library users
- Library staff communication skills
- Library staff customer care and public relations

4.9 Library staff training

4.9.1 Educational qualifications of library staff

Library personnel constitute an important component of the library, especially in dissemination of information. According to Feret B and Marzena M (1999) the present day librarianship is a highly complex profession requiring thorough scholarly and technical knowledge. They further observed that, the varied and complicated services of a modern research library need to be organized and managed by a person of competence and expertise, who has sound knowledge of the tools and techniques of the library profession e.g. cataloguing and classification skills, communication skills and reference services, to mention but a few. They concluded that the librarian must be familiar with different facets of modern technology like electronic information creation, storage and

dissemination. The right numbers and well- skilled staff is essential in promoting information access and retrieval by users in academic libraries (Rukwaro 1998).

The study sought to establish the professional background since their level of qualification can affect information use. When staff are highly trained, they acquire more skills which enable them to do their work well. Librarians with bachelors and postgraduate professional training have advanced training in information search for example and this can help users get the information they want, Jain P (2005).

Table 4.12: Professional qualifications of staff

Qualification	Total-8	Percentage
Post graduate degree in library studies	0	0
University degree in libraries	0	0
Diploma in library studies	4	50
Certificate in library studies	4	50

Source:Field data

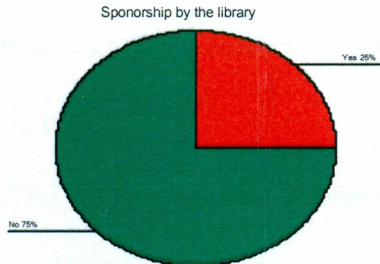
The above table shows that 50 percent of the library staff holds diplomas in library studies while 50 percent were certificate holders. From the study, it was revealed that none of the selected library staff had bachelor's degree and postgraduate qualification in library studies. This means that users most of the time interacted with paraprofessionals who lacked some higher training in library sciences which would mean that users may miss information due to the librarians lack of certain skills not available at their level of training. . For the library to increase information use, it needs to train more staff with

bachelor and post graduate degrees so as to increase library staffs' skills in library service delivery (Mutwiri, 2005).The management should also involve library staff with degrees to be at the service points to ensure that users also got the services of these personnel.

4.10 Sponsorship for courses

The library should continuously sponsor library staff for short courses like seminars and conferences. Frequent attendance to courses imparts new knowledge to staff that enhances their performance. Frequent short courses act as reminders to staff on what is expected of them unlike long-term training where staff forget what they have been taught over time. These frequent short-term courses act as refreshers and keep skills at staffs' figure tips.

Figure :15 Status of staff sponsorship



Asked whether they had been sponsored for any courses, seminars and conferences, the indication was that 75 percent hadn't been sponsored while 25 percent had been sponsored as depicted in the figure above. These findings show that the attendance of staff to short courses was below average. This means that staff may lack current knowledge that is taught in these courses to improve service delivery. According to Mutwiri (2005) staff who attended these courses were able to dispense their duties better

than those who hadn't attended since they had extra knowledge on service delivery. This calls for libraries to increase sponsorship of staff to these courses.

4.11 Customer care/public relations training

Judith and Joan (2006) say the customer should be treated well so as to come back. They say that it is important that library staff are trained on how to handle users with care. The way the customer is handled can make him or her use or not use the services of a library. In cases where staff use bad language for example, this can discourage a customer from using the service.

Asked whether they were trained on customer care, all the respondents said they were not trained. This implies that staff lacked skills on customer care and users would in most cases fear to go back to them to consult. Mutwiri, 2005 noted that lack of customer care/public relation skills could affect service use. There is need to offer training to library staff on customer care. This course should also be taught in library training schools.

4.11.1 Suggestions on promotion of good staff-customer relations

Respondents gave the following suggestions for the promotion of good staff-patron relation:

- All the respondents said that library staff should be sponsored for customer care courses.
- 50 percent said frequent in-house training should be introduced.
- 25 percent said staff should be re-trained to bring in new skills which were omitted in their earlier training.

4.12 : Library staff shortage

According to Jain P (2005) libraries need to have right numbers of staff. This should be according to their user population. When staff are few compared to their user population, there is a likelihood of them being overworked which may reduce their morale thus affecting their service delivery. Asked whether they considered their numbers enough with relation to their workload, the findings were as below

Table 4.13:Staff shortage

Adequacy	Number of respondents-8	Percentage
Adequate	0	0
Somewhat adequate	4	50
Not adequate	4	50

Source: Field data

The above table shows that 50 percent of the personnel felt that they were somewhat adequate, while 50 percent felt that they were not adequate, none felt that they were adequate. This reveals that according to the respondents view, staff weren't adequate. From the researcher's observation, library staff in the selected libraries were few compared to the number of students they served. The University had introduced parallel degrees, thus increasing the number of students by almost double without contracting new staff. The implication here is that staff were serving twice the number of students. There is need therefore for the Universities to employ more staff to create the right ratio between users and staff.

4.12.1 : Suggestions of solving the staff shortage problem

When asked what should be done to improve on the problem of staff shortage, respondents gave the following suggestions,

- All the staff said new staff should be employed.
- 50 percent said work-study students should be involved in some library duties.

However, it should be noted that existing staff could get used to a system and become less productive over time. Though the problem of staff shortage cannot be ruled out, the available staff could do more than they are doing. Library management can device other methods of motivating staff, like recognizing what they are doing, delegating duties and improving their work environment.

4.13 : Staff assistance to library patrons

Library staff should always be there to assist users access and retrieve information; they should not wear faces that users will fear to approach them for assistance, (Mutwiri, 2005). Library staff were asked whether users approached them for assistance. All the respondents said users approached them for assistance. This is a very positive behavior and should be encouraged. Asked the kind of assistance patrons mostly approached them for: 40 percent said in providing individualized education, 35 percent to help the users on search skills, 50 percent said helping the users locate materials through a variety of services and 25 percent said in doing literature search on the users areas of study. This reveals that users approached staff on issues related to information literacy. This means that user's were not adequately

taught how to use their libraries. Thus there is need to review the IL programmes and ensure that users are well trained in information literacy.

4.14 : Library staff relationship with users

Majid S and etal (2001) emphasizes that, for effective delivery of services, good relationship between users and staff should be enhanced. This can be done by involving users in decisions pertaining to their service delivery, or consulting users on their views about the library. Users will feel appreciated by the library staff and develop in return good relationship with them. They will always feel free to approach staff for assistance. The study then sought to establish the nature of the relationship that existed between library staff and users, for good relationship will make users approach staff for assistance. 75 percent said it was good while 25 percent felt it was very good as depicted in the table below. This indicates that the relationship between the two was above average and therefore these meant users would approach staff for assistance. However, this was staffs opinion.

Table 4.14 Staff vs. user relationships

Rate	Respondents –8	Percentage
Very good	2	25
Good	6	75
Bad	0	0
Very bad	0	0

Source: Field data

4.15 : Problems faced by staff when serving users

Library staff views on the problems they face when serving users are important. When staff find that their views are taken into consideration by management in making policies on how to improve service delivery, they feel accepted and recognized. In return, staff improve their productivity thus enhancing service delivery. The management can also use the staff views for management purposes like how to improve services. The study sought to find out what problems staff faced when serving users.

Table 4:15: Perceived problems when accessing resources

PROBLEM	Total	Percentage
Users are not able to express their needs precisely	6	75
They do not know how to use the catalogue	6	75
They do not know how to use reference resources	6	75
They have low regard for librarians	4	50
They do not know how to use electronic resources	6	75

Source: Field data

The problems could be grouped according to their nature as follows: Lack of information skills, according to Majid S and etal(2001) users who didn't have skills on how to use the library considered the library as in effective. This category of users had problems of how to use the catalogues to access information and also had difficulties in accessing electronic resources. The other problem with library was due

to their low regard to their librarians. Majid and etal (2001) found out that those users who had low opinions on library staff avoided library use. Table 4.15 indicates that 75 percent of staff faced the following problems with regards to users. Users were not able to express their needs precisely; they did not know how to use the catalogue, they did not know how to use reference resources and they did not know how to use electronic resources while 50 percent of staff said that users had low regard for librarians. This figures show that staff felt that users of academic libraries are not properly trained in library use. This could mean that the user education was not preparing them fully for library use. Thus, the need to review this programme and make it user friendly.

4:16. Status of information literacy (User education)

The American Library Association (ALA) defines information literacy as “recognizing when information is needed, and having the ability to locate, evaluate and use effectively this needed information. Nyamboga, (2003) states that it is essential that students and staff be provided with opportunities to learn not only how to access information sources but also how to evaluate, manage and use them effectively. She further observes that information literacy forms the basis for lifelong learning and enables learners to master content and extend their investigations to become more self-directed, thus assuming greater control over their own learning. The end result of such a programme leads information literate individuals to be in a position to:

- Determine the extent of information needed;
- Access the required information effectively and efficiently;

- Evaluate information and its sources critically;
- Incorporate selected information into their knowledge base; and
- Use information effectively to accomplish a specific purpose.

The study sought to find out from the library staff whether their libraries offered library user education and its usefulness. All the library staff surveyed said that their libraries had information literacy programme, which were offered only in the first semester when students join the University. It is also offered one day in the library-by-library staff when new students are given general orientation. Asked how useful it was 50 percent said it was useful, 25 percent said it was very useful and 25 percent said it was not useful. These findings show that the IL programmes are average; they are not very useful. Those who gave the response very useful had the reason that the user education programme enables the user to acquire skills on how to use the library. Those who said not helpful said that the programme was done haphazardly and in a hurry and thus it didn't meet its purpose. This meant it was not well coordinated and sometimes lectures did not turn up for the classes. This analysis reveals that, although user education is available in all the selected libraries, it is not meeting the expected results. Observation by the researcher showed that these programmes weren't compulsory in the university and not all students attended. The course outline showed that many aspects of IL hadn't been incorporated and this could explain why staff felt that they (programme) were not useful. A study done by Nyamboga (2003) in Indian Universities found that, IL provided wasn't comprehensive enough and not all users participated in it. She recommended that all Indian universities unify and undertake a programme in information literacy and further make it compulsory for all students whether undergraduates, postgraduates or research scholars. There is need

to overhaul the curriculum of these programmes and make them compulsory to all students. People trained in information sciences at postgraduate level should teach them.

4.17: Library staff commitment

Library staff need to be committed to their work, this means they will be concerned with the users needs. They should be there to assist the users to get the information they want (Priti, Jain 2003). The study aimed at finding out whether library staff were committed to their work. Asked how they viewed staff commitment to duty 25 percent said library staff were very committed, 50 percent said they were committed and 25 percent said they were not committed as depicted below

Table4.16; Level of staff commitment

Commitment level	No. of respondents-8	Percentage
Very committed	2	25
Committed	4	50
Not committed	2	25

This shows that the level of staff commitment was just average. According to Jain (2005) some of the barriers to productivity by library staff were job dissatisfaction and lack of commitment. He notes that this was due to poor remuneration and lack of recognition of their services by management. Asked why they thought staff were not very committed, those who said very committed and committed think that staff were always available to offer assistance and also engaged in other library duties. Those who said staff were not committed, 50 percent of them cited poor pay, and 50 percent

said it was due to lack of promotion and 25 percent said tribalism was being practiced when promoting staff.

4.17.1: Suggestions for improving staff commitment to duty

Staff surveyed were asked what they think could be done to improve their commitment to work and the following were their suggestions; 50 percent said that management should recognize staff and promote them and 100 percent said that their terms of service should be reviewed. In order to improve staff productivity, they should be motivated, this can be done through better pay and promotion etc.(Jain 2005).However, it has been observed that even when staff were promoted or paid better, this did not automatically increase productivity. Staff may just give these as excuses for lack of commitment. Management should use other methods of motivating staff to be more productive like appreciating their services, recognition, delegation and devising a reward system.

4.18 : Staff attitude towards library users

Staff attitudes determine how they deliver services to users. These attitudes act like their guidance on how to respond to the users when they seek help from them. When they have positive attitudes towards users, they will willingly assist them in their varied needs. When they have negative attitudes to users they may ignore and assume users needs. Staff who are trained and motivated may have positive attitudes towards users while untrained and unmotivated staff may have negative attitudes towards users.

Table 4.17 staff attitude to users

Users attribute	Strongly agree	Agree	Somehow Agree	Disagree	Strongly disagree
Library users are difficult to handle	0	50%		50%	0
Library users are very friendly	0	50%	25%	25%	0
Library users are knowledgeable in library use	0	25%	50%	25%	0
Library users are unrealistic in their demands	25%	25%	25%	25%	0
Library users have bad behaviors of mutilating resources	0	25%	25%	50%	0
Library users are naïve and ignorant	0	0	25%	50%	25%

Source: Field data

The study found out that the feelings of staff about their users were mixed with 50 percent feeling that users are difficult to handle, 50 percent said users are friendly, 50 percent said users were somehow knowledgeable on how to use the library. 25 percent agreed that users were unrealistic in their demands. 50 percent felt that users have some bad behaviors of mutilating resources while 75 percent of staff disagreed that users were

naïve and ignorant. These findings show that some of the views the staff have on users were negative and this would sometimes determine how they deliver their services. Those who felt that users were difficult to handle are more likely to ignore users. A study done by Broady-Preston and Felice (2004) found that attitudes affect the way service is delivered. Therefore, there is need for staff to change these negative attitudes towards users to enhance service delivery.

4.19: Status of library staff communication skills

According to Jain (2005), effective communication skills are especially necessary for an information service manager and all the library staff. He says this is because, information service personnel are required to communicate with all levels of staff and users within the organization as well as outside the organization in order to disseminate, share, select, manage and disseminate information to meet customer needs .The study sought to find out how communication was between users and staff. 75 percent of library staff said it was good while 25 percent felt that it was poor, non- said it was very poor or very good. This reveals that communication between users and staff in the selected libraries was above average. However, there is need to improve on the 25 percent of the total population who felt it was poor. This can be done through training staff and users in communication skills.

Table 4.18 Status of communication

Nature	No. of respondents-8	Percentage
Good	6	75
Poor	2	25

Asked to offer suggestions on what can be done, staff had the following suggestions; 100 percent said that both users and staff should be imparted with skills on how to communicate effectively through training, 75 percent said that the existing communication should be improved by offering continuous training in communication skills. 25 percent said that users should have positive attitude towards staff that will make them feel free to communicate with them.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

For effective information communication, Shannon and Weaver recommends that all the distortions in the information flow process should be minimized or eliminated altogether. In the study, the distortions were the barriers that deter information access and retrieval. The information channels were the information retrieval tools, the library services, library staff and multi-media facilities. According to the theory this study is based on, these channels should be barrier free. All efforts should be put in place to ensure that no noise comes between the source and the destination so that information can flow effectively. The conceptual framework, show how these information channels relate to one another to determine information access and retrieval. It shows that for effective information communication, all the variables should be effective. The conclusion and recommendation of this study will be based on the theories recommendation on how to remove the distortions (noise) in order to facilitate information flow.

The main focus of this study was to explore the barriers that users face when accessing and retrieving resources in academic libraries. Information resources are for use and users of academic libraries know the importance of these resources in order to accomplish their needs. Unlike in the past when Libraries were seen as store houses of resources, the present library is a service industry, it is expected to disseminate information at the most convenient terms and save the users time. The existence of other alternative information providers, libraries have to ensure that the process of accessing and retrieving resources is

very friendly. Barriers that make this process stressful should be minimized or eliminated altogether.

This chapter summarizes the findings of the study, which are analyzed and discussed in Chapter 4, and makes conclusions and recommendations based on these findings. Views of the researcher formed from the literature review were taken into consideration. The findings will be discussed according to the study objectives as follows

5.2 Use of information resources and satisfaction with the process of accessing the same

5.3 Use of other information providers

5.4. View about the library related barriers

5.4.1 Satisfaction with information retrieval tools (the catalogue)

5.4.2 Status of library services

5.4.3 Status of stock organization and nature of scheme used

5.4.4 Satisfaction with library signage and guidance

5.5 View about the user related barriers

5.5 View about the multi- media related barriers

5.6 View about the library staff related barriers

5.2: Use of resources and satisfaction with the process of access and retrieval

Major findings:

On the use of library resources, the results presented in figure 2 shows that a very high percentage of users use library resources (90%), apart from 10% who said they didn't use and attributed this to lack of skills.

On satisfaction with the process of information access and retrieval however, it was established that majority of the respondents 75% were not satisfied. This is in accordance with the results presented in table 4.2.

The findings of the study indicated that several factors were responsible for this state of dissatisfaction, these factors were, - un shelved materials, slow Internet connectivity and lack of personnel assistance

Conclusions

It is evident that users were not satisfied with the process of accessing and retrieving resources. This could be the reason why they turned to other information providers

It should be noted that users who find the information access process friendly would not go elsewhere. What this means is that if libraries do not create a more user-friendly access process, users will move to other information providers.

Recommendations

Libraries should:

1. Make the information access user friendly
2. Know what the users want
3. Know how they can satisfy the users' information needs

5.3 Use of other information providers

Findings

The increase of the number of users using other alternative sources of information besides their libraries can mean dissatisfaction with information access process. The

study revealed that 90.6% of the respondents used other information providers. This is due to;

- a) Ease of access
- b) Well guided libraries
- c) Currency of resources

Conclusions

Users have to a very large extent used alternative information providers. The implication is that, resources in their libraries will be underutilized and thus libraries will not accomplish one of their most important goals of information dissemination.

Recommendations

For academic libraries to retain their users, they need to be user friendly. This can be achieved by a comprehensive approach of making their resources accessible. It can also be achieved by improving on all the key areas that users use to access and retrieve information. This will ensure that users get the information they want easily and timely.

5.4 The library related barriers

5.4.1 The information retrieval tools

Findings

Information retrieval tools are very important in guiding the user to access and retrieve resources. Chief among these tools is the library catalogue. The study found out that 77% of the respondents felt the catalogue was not effective because of the following reasons

- a) Cards were misfiled
- b) Cards were missing

c) It was complicated to use

Library catalogue remain an important tool in academic libraries that house thousands of materials.

Conclusions

It is evident that the catalogues in the studied libraries were not effective. This could lead to users missing important resources or even assuming they are not available if they do not appear in the catalogue due to missing cards or misfiling.

Recommendations: For this tool to be effective, Libraries need to monitor and evaluate its performance. There is need to ensure it is updated accordingly when new resources are added up. Filing should be properly done and uniformity maintained. They should also be crosschecked to ensure missing cards are replaced immediately with new ones. Users should be explained how the filing system works on a continuous basis. Libraries should create systems that are easy to use like encouraging users to use the OPAC, which is easy to use and provides multiple search strategies.

5.4.2 View of Library Signage and Guidance

Findings

The selected libraries had buildings with more than one floor; this means that these libraries are big. In today's virtual competitive world, the library cannot ignore its image. University libraries are complex organizations, often confusing to their users.

The study found out that majority of the respondents did not find it easy to go around their libraries, (they were 91.7% as shown on table 4.4.) Those who found it easy,

majority said the signage and guidance was fair and poor respectively 75%, as shown in figure 5.

Conclusions

It can be concluded that signage and guidance in these libraries was below average. When the libraries are not well guided, users can fail to find where the needed resources are kept, hence unable to access and retrieve them. This will lead to unsatisfied information needs to the users.

Recommendations: Libraries need to improve on library signage and guidance, by providing guidance of stock and around the libraries. They can put stacks and shelve guides on the materials to improve on stock location. Maps can be put on each floor indicating what is found where. Library tour guides can be conducted frequently to show users around the library and show where each subject collection is kept. Brochures and guide pamphlets can be provided to further guide the library and its stock. Whatever is written should be clear and bright enough for visibility purposes. In doing this, users will be able to locate materials with ease and thus improving information access and retrieval.

5.4.3 Assessment of the state of the art Library Services

Findings

Libraries exist to disseminate information to their users. This is done through various services which include: Reference, literature searches, current awareness, indexing and abstracting, selective dissemination of information, photocopying, individualized guidance and library user education to name but a few. If information access is user friendly, then users must perceive these services as being excellent, very good or good.

The study found out that users were not happy with most of the services. In evaluating them, they ranked them as either below average or poor and only a few were average. (See table 4.5). For example 80% of the respondents ranked photocopying as poor as machines had broken down and took too long to be repaired.

Conclusions

It can be concluded that the available services were not satisfying to users. These services enhance easy information access and retrieval, if they are not available or not very helpful, then users can miss important information.

Recommendations: Libraries have to do something to improve the quality of these services. Libraries need to find out what the users want. On the basis of that, staff will deliver relevant services. On staff shortage, libraries can outsource and contract the services so as to improve delivery. The delivery of these services should be timely, accurate and friendly. Reference librarians should be adequately skilled and always available since reference librarians run most of these services. Libraries should promote the use of electronic services e.g. electronic reference services available on line.

5.4.4 View of stock organization and scheme used.

Findings

All the selected libraries used library of congress classification scheme to organize their stock except the Law library that combined it with Moys classification scheme. It is very important that users know how these schemes code mean so that they can access information easily. These schemes can be complicated and confusing to users unless some education is done to users on how it works.

The study found out that almost half of the respondents, 41.7% (Figure 7) did not know how the scheme worked. Of those who knew how it works 35.5% said it was confusing and unfriendly.

Conclusions: It can be concluded that, most users did not understand how the classification scheme in their libraries work. Failure to understand can lead to fear and negative attitude towards information use.

Recommendations: In the user education programme, a unit of the library's classification scheme should be incorporated. This will ensure that users are taught in details how the scheme works thus enabling them to use the collection more effectively. The library personnel should explain to the users how the scheme is applied and what the code or call marks means. Libraries should develop in-house schemes that are user friendly especially to materials that are constantly in use.

5.4.5 Status of stock shelving

Findings

It's said, "an unshelved book is a lost book." Its important that materials are shelved back once they are returned from use. It is not only returning back but also returning it to the right place. Users have always missed resources just because they are lying somewhere on the desk or on top of others.

The study found out that the status of shelving was average and poor respectively, (66.7% table 4.6). This figure is very high thus shelving needs to be improved. Staff in these libraries cited inadequate staff as the reason as to why this situation was that way.

However, the situation cannot be justified since there is no need of stocking what cannot be accessed.

Conclusions

It is evident that shelving of materials in these libraries is not in a good state. The users can fail to get resources due to poor shelving or misshelving. Users will also avoid searching for resources if they notice that they aren't properly kept. All this leads to information non-use.

Recommendations

Libraries need to improve the status of shelving by increasing the number of hours this exercise is given (it was one hour in the selected libraries). If possible, library can contract these services over the weekend when usage is not very high. Staff can also be paid over time and thus any extra hour above the agreed time is paid. Students on work-study can also be contracted to help in shelving. When the stock is properly shelved, its usage will be easy thus improving information access and retrieval.

5.5 User related barriers

The users of academic libraries can have attributes that can act as barriers of accessing and retrieving information resources. In order to facilitate the access process, these attributes should be in the positive direction

5.5.1 User awareness of resources

Findings

Users should be made aware of information resources available in their libraries in order to fully use. Although the catalogue is supposed to show all what new materials

the library has, studies have shown that some users don't use the catalogue. Unless the library vigorously uses all other means of creating awareness of the resources they have, most of her users will not be aware of what exist.

The study found out that 58.3% said they were aware of resources available in their libraries but almost half of them 41.7% said they were somehow aware or not aware of resources available in their libraries (see figure 8)

Conclusions

From the findings, it can be concluded that the level of resource awareness was low. This could lead to non-use of resources since one cannot seek what they are not aware of.

Recommendation

Libraries should have a marketing programme. This programmed will inform users what new services and resources are available in the library .The library has to continually market itself and its resources at the market place, as this is the only way it can let people know what it has. The marketing program will ensure that the library markets all her resources. This can be done through displays of all new materials, through brochures and even use of informal communication. The program should be evaluated and monitored to ensure it meets the set objectives.

5.5.2 Users Perceived problems when accessing information resources

Findings

It's important to establish users satisfaction with information use. Users perceptions on what they find as barriers of accessing and retrieving information resources should be taken into account and something done to improve on the situation.

The study established that Users faced several problems when accessing information resources. Chief among them was that they lacked skills on how to use resources, they said that jargons were used to describe materials and also complained that library staff weren't helpful. Other problems were that their colleagues had bad behaviours of hiding and mutilating materials. Other problems were that the libraries weren't well guided and shelving was not good.

Conclusions

It is clear that information access and retrieval faced by various barriers. Unless these barriers are minimized, users will continue seeking resources in other barrier free information providers. Eventually the libraries may remain as mere storehouses.

Recommendation: Libraries should carryout frequent user satisfaction surveys to know what their problems were. User education programs should be continuous to ensure that users are imparted with skills on how to use the libraries. Strict measures should be taken on those users who mutilate materials, like they can be barred from using the libraries for a certain period or even told to buy several copies of the mutilated materials. The user education programme should be part of the examinable units so that all users attend and seriously follow it up. This will ensure that all users attend this program and are all equipped with the necessary library user skills

5.5.3 The user education programme

Findings

User education program is the backbone of information use in academic libraries. University libraries store a lot of resources, they are complex and hard to use. These programs ensure that users of these libraries can maneuver their ways around the library easily and can get the resources they want. However, to be effective, these programs need to be comprehensive and done continuously. They should involve all the stakeholders so as to ensure that there is no gap in the chain.

The study found out that only 16.7% of the users found this program adequate .All the 83.3% found it somehow adequate or inadequate at all. (Figure: 10). It is worthy to note that in the selected libraries, these programmes were taught by personnel who weren't trained in Library science.

Conclusions

It is evident that IL programme did not satisfy the users in the selected libraries. This could explain why users turned to browsing as a way of getting resources, as they did not know the right methods of accessing resources.

Recommendations; For these Programmes to be effective, library management should convince the University to allow these courses to be taught by librarians. The librarians should have postgraduate training so as to be conversant with all the areas in information science. They should also request the Universities to allow the course be included as core units so that users take it seriously and participate fully. The library should evaluate, update and monitor the programme to make it user friendly

and to keep pace with the rapid change in Information and Communication technology.

5.5.4 User attitudes towards libraries and librarians

Findings

The nature of the attitudes that users have towards librarians and libraries is a key determinant to library use. If users have a bad attitude towards libraries they will avoid using it and its resources. From the time the user checks in the library, all the available services including the librarians should be friendly to the user. Any bad opinion the user forms from these two (the library and the librarian) will be printed in his mind all the time he thinks of using the library.

The study found out that most users felt that libraries weren't easy to use (50%), that libraries did not promote their resources (58.3%), That Librarians weren't knowledgeable (50%), that Libraries only stored books (41.7%) but 75% felt that Librarians offered assistance (Table 4.7). This indicates that most users have bad attitudes towards their libraries and librarians

Conclusions

From the findings, it can be concluded that users found their libraries complicated to use and librarians not available for assistance. These attitudes are negative and can discourage the users from using their library's services.

Recommendations:

The right perception of libraries and librarians can only be developed by a positive change of the prevailing situation. If libraries improved their services, users will feel

attracted to the same and thus start using the library. Librarians need to be user friendly and approach the user with courtesy and respect. They should always try to answer the users questions and when they don't know they tell them so but guide them to possible sources.

5.6 The Multi- Media related barriers

The use of multi-media systems to disseminate information is gaining popularity in academic Libraries. This method involves the use of information communication technology to deliver information and it is considered to be the fastest way in doing so, thus turning around the world of information and creating a big challenge to the printed information. The university libraries of the twenty-first century are challenged to be digitized through the application of ICT facilities to their libraries. This is aimed at ensuring quick and easy access of the large numbers of library users to relevant accurate and current information from both remote and immediate databases to facilitate learning, teaching and research in the universities. Its good to note that all the studied libraries had taken the initiative to computerize.

Findings: 75% of them had been equipped with these facilities (Figure 14). While 25% were partially computerized

5.6.1 Problems of electronic information access.

For these facilities to deliver information services to users, they need to meet the expected standards.

Findings: The study established that users were not able to adequately access electronic information services and ranked the problems as follows,

1. Nobody was available to assist them 83.3%
2. Few computers were connected to the Internet 74.9%
3. Computers were very slow 74.9%
4. Short period was allocated for search 58.3%
5. No services were attached to this service 58.3%
6. Didn't know how to access 41.7%

5.6.2 View of adequacy of resources

Findings

The study established that services related to this mode of information delivery weren't adequate, with 91.7% citing inadequate personal computers, 83.4% lack of assistance, and 58.4% citing slow connectivity and limited search time respectively.

See table 4.9

5.6.3 Training in use

Findings

The study established that users weren't trained on how to access electronic information resources with only 16.6% saying they were trained. Table 4.10. Its important that users are equipped with methods of accessing electronic resources.

Conclusions

From the findings, it is evident that though the adoption of ICT in these libraries is commendable, users had problems accessing and retrieving electronic information resources. These problems were, few personal computers; slow connectivity; lack of services attached to the facility; lack of skill to search; lack of assistance by staff;

short period allocated for search and few computers connected to the internet. Most of the users were not trained on EIS search. This implies that the use of electronic information services in these libraries was not satisfying, yet this is a period of ICT, and users need current, easily accessed and more user-friendly resources.

Recommendations;

Library should encourage users to share information accessed electronically among themselves. Library can be photocopying requested electronic information and put the same in reserve to allow all users to have a chance to use them. They can also establish a user profile and send electronic information to the users via e-mail. This will minimize the problem of inadequate PCs.

Library management should convince their parent organizations the importance of ICT in the libraries so as to increase their funding in the area of electronic resources. This will enable them to increase the number of computers and also increase bandwidth to make connectivity faster. By increasing the number of PCs, the number of users who access electronic information will increase.

There's is need to incorporate electronic search training in the user education programs to train users on how to search electronic resources. Services that go along with electronic search like printing should be provided for or outsourced .The time for searching should be considerable and user surveys should be conducted to determine what is "considerable".

Library staff should be trained continuously to acquire new skills in electronic information services and in turn they train the users. There should be librarians who

are specifically trained in electronic information dissemination and should always be available to offer assistance to the users.

5.7 Library staff related barriers

Human resources are defined as “the available talents and energies of people who are available to an organization as potential contributors to the creation and realization of the organization's mission, vision, strategy, and goals” (Jackson and Schuler, 2000, p. 37). Any organization’s excellent performance is the living result of its people's efficiency, effectiveness, commitment and potential. That is why it is vital to manage and develop human resources effectively in libraries and information services. To facilitate information access and retrieval, library staff needs to be trained and adequate. They should be committed, approachable and have public relations. This is mainly acquired through continuous training.

Findings

The study however established that sometimes, users did not feel free to approach any member of the library staff for assistance, though this did not apply to all library staff. Some admitted being put off by unfriendliness of the library staff, their indifference and laziness. (See figure 13). It was also established that majority of the libraries did not train their staff on customer care and public relations, 75% hadn't been sponsored for seminars figure 15. This could explain why staff weren't friendly to users.

On staff numbers, it was found that staff felt that they weren't enough (Table 4.14) this may explain why users said they were unavailable to assist them when they needed assistance. If library staff have to be facilitators of information access and retrieval, they have to focus on the user. They should have the necessary skills, available and approachable otherwise being a key entry point to information, users will avoid them.

Conclusions;From the findings it can be concluded that the level of staff training was average and users most of the time interacted with paraprofessionals. Staff were also not trained in customer care and public relations. Most of their attitudes towards the users were negative. The number of staff was not in the right ratio to the number of users. The effect of this situation is that users may in most cases miss information as most of them (users) use staff to assist them in getting information.

Recommendations:Staff should create a friendly attitude towards users by promoting good customer care. Libraries need to constantly train their staff on issues of public relations. Libraries should also offer continuous training to staff to improve their skills. They (libraries) should also motivate staff to be able to deliver their services well There should be a reward based objective staff performance appraisal system, where the excellent performers can be rewarded and the poor performers can be developed to their optimum potential in the line with library mission, vision and individual goals. A concrete feedback should be provided to each staff member about his or her performance followed up with implementation programme.

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**APPENDIX 1:
INTRODUCTORY LETTER TO QUESTIONNAIRE RESPONDENTS**

Department of library studies
Kenyatta University
P.O box 43844
Nairobi
1.06.08

Dear sir/Madam.

QUESTIONNAIRE TO EXPLORE BARRIERS THAT USERS FACE WHEN ACCESING AND RETRIEVING RESOURCES IN ACADEMIC LIBRARIES.

I AM A 2Nd year postgraduate student at Kenyatta University, Department of Library Studies. I am carrying out a study on the barriers which users face when accessing and retrieving resources in academic libraries. The research aims at finding out library related barriers, user related barriers, staff related barriers and multi-media related barriers and how they affect information use. From the findings, I hope to draw broad conclusions so as to recommend on what should be done to promote information access.

You have been selected to participate in this important research. I consider your response invaluable to this research. Therefore, I kindly request you to complete the attached questionnaire as fully as possible. All information that you provide will be treated with confidentiality and will be used solely for research purposes.

Thanking you for your co-operation

Yours faithfully,

Angela M. Mumo.

APPENDIX 2

QUESTIONNAIRE FOR STUDENTS

SECTION A: GENERAL INFORMATION

Note for every question, please indicate your answer by ticking appropriately in the space provided)

1.Name of your Faculty

Course of study e.g Law, M.A.....

Year of study.....

SECTION B: INFORMATION ACCESS, RETRIEVAL AND USE

2.Do you use information resources in your library (Both print and electronic)?

Yes[]

No []

3.If No, please state why

Materials are poorly arranged []

I don't know how to access materials []

I find library staff unfriendly[]

Electronic materials are complicated to use[]

Others (please specify).....

4.If yes to question 2,how satisfied are you with the process of accessing and retrieving information resources in your library

Very satisfied []

Satisfied []

Somewhat satisfied []

Dissatisfied []

somewhat dissatisfied []

Very dissatisfied[]

5.Do you use information resources from other information providers apart from your University Library(ries)

Yes []

No[]

6.If yes please state why

Ease of use []

Currency of information []

Well guided stock[]

Speed in searching electronic resources[]

Others (Please specify).....

SECTION B: LIBRARY RELATED BARRIERS

Information Retrieval tools

7. Do you use information retrieval tools (catalogue, index and abstracts) to locate information resources in your library?

Yes[]

No[]

8. If yes, how would you describe the effectiveness of the above retrieval tools?

Very effective[]

Effective[]

Just effective[]

Not effective[]

Please explain.....

9. If your answer to Question 7 is No, how do you obtain what you want from the shelves?

Browsing from shelves[] Asking library staff[] Asking friends[]

Others (please specify).....

Signs and guides

10. Do you find it easy to locate information resources around your library?

Yes[]

No[]

11. If your answer to q.10 is yes, how do you find signage (guidance) in your library?

Very good[]

Good[]

fair[]

poor []

very poor[]

Please explain.....

12. What would you suggest to be done to improve guidance of information resources?

Use large brightly colored signs[] Have a guidance librarian[]

Have a map at the door[]

Others please specify.....

Services

13. Does your library have services that assist you in locating information resources?

Yes []

No []

Not aware []

14. If your answer to q.13 is yes, how do you find these services?

Very Helpful[]

Helpful[]

Not helpful[]

14. Below is a list of services that may be offered in your library to assist you locate information. Please evaluate the services by ticking appropriately. In this case, Excellent =80% and above, Very good=70-79%, Good=60-69%, Average=50-59%, below average=40-49% and poor=39% and below

SERVICE	Excellent	Very good	Good	Average	Below average	Poor
Reference services						
Library tours and guides						
Current awareness						
Selective dissemination						
Literature searches						
Photocopying						
Individualized guidance						
Abstracting and indexing						
Others(please specify)						

Stock organization

15. Do you understand the system (classification scheme) used to arrange resources in your library?

Yes []

No []

16.If your answer to Q15 is yes, how do you find the system?

Friendly [] Unfriendly [] Confusing []

Others(please specify).....

17.How would you describe the status of shelving of information resources in your library?

Very good [] Good [] average [] Poor [] Very poor []

18. What do you suggest to be done to improve the status of shelving?

- Increase time for shelving[]
- Contract staff []
- Involve students on work-study[]
- Others (please specify)

SECTION C: USER RELATED BARRIERS

19. Are you aware of the information resources (Both print and electronic) available in your library?

- Yes [] No [] Somehow []

20. If yes, which of the following has guided you to know?

- The catalogue[]
- Lecturer's lists[]
- Comrades[]
- Display of new arrivals on library's notice boards[]
- Others please specify.....

21. Do you face problems when accessing information resources in your library?

- Yes[] No[]

22. If your answer to q.21 is yes, which among the following problems do you face?

- Lack of skills on how to use the library[]
- Use of jargons in describing materials[]
- Colloquies hiding and mutilating materials[]
- Unhelpful staff in directing us to the stock[]
- Others (please specify)

23. In your opinion, do you consider the user education offered to you on how to use the library adequate?

- Adequate[] Somehow adequate[] Not adequate[]

24. What would you suggest to the library to do to enable you have full use of its resources

- Increase the time dedicated to library use education programs[]
- Improve promotional activities on new arrivals[]**

- Improve infrastructure facility []
- Bar users who hide and mutilate materials from using the library when caught []
- Others (please specify).....

USER ATTITUDE TESTING

25. Below are some statements about the library and librarians. Please indicate whether you strongly agree, agree, uncertain, disagree, or strongly disagree with them

Statement	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Libraries are not easy to use					
It is easy to find your way in the library					
Academic libraries only store books					
Libraries don't promote their materials					
Librarians are not friendly					
I would not expect a library staff to be able to supply me with the information I need.					
If I cant find a book I would ask library staff to assist					
Library staff are usually unavailable to offer assistance					

SECTION E: STAFF RELATED BARRIERS

26. Do you find the library staff knowledgeable in their work?
 Yes[] No[] Somehow[]

27. Do you feel free to approach any member of the library staff on how to get information?

Yes []

No []

28. If your answer to the above is no, why?

.....

29. Which of the following statements is true in your experience

The library staff can always answer my questions []

The library staff can sometimes answer my questions []

The library staff can never answer my questions []

30. Below is a list of some attributes of library staff. Give an evaluation of the staff by ticking appropriately

Attribute	Tick
Very welcoming	
Very efficient and reliable	
Approachable	
Understanding	
Indifferent	
Lazy	
Unavailable	
Others (please specify)	

31. How do you view the character of your library staff?

Very helpful []

Helpful []

Indifferent []

Unhelpful []

32. When you need help when looking for information, who do you ask for help? Use the scale

4-Mostly ask, 3-sometimes ask, 2- Rarely ask, 1-Don't ask

Library staff []

Students/friends []

Teacher/Lecturer []

Other, (Please specify)

SECTION F: MULTI-MEDIA RELATED

33. Is your Library equipped with Multi-media facilities (e.g. computers, Cd-rom, internet, fax e.t.c)

Yes []

No []

Partially []

Not aware []

34 If yes or partially, do you use the above facilities to access information?

Yes[]

No []

35. Please indicate the state of the following electronic information search services in your library

Electronic service/facility	Adequate	inadequate	Somewhat adequate
Number of personal computers			
Internet connectivity			
Available assistance			
Printing services			
Search time			
Skills in search			
Publicity of electronic resources			
Others ,please specify			

36. What barriers do you face in accessing electronic information resources?

REASON	TICK
Passwords and frequent changes of the same	
Few computers connected to the internet	
Computers very slow	
Short period allowed for searching	
Nobody to assist me in searching	
Don't know how to search	
No services attached to this facility like printing	
Others(please specify)	

37. Are you given any training on how to use multi-media facilities?

Yes []

No[]

THANK YOU

38. What would you suggest to the library to improve in the Multi-media facility?

SUGGESTION	Tick
Increase the number of computers	
Teach users how to search information	
Increase bandwidth	
Increase number of staff to assist users in searching	
Increase search time	
Offer alternative services like printing	
Allow use of individual passwords	
Increase computer pools	
Subscribe to external data bases	
Others ..(please specify)	

THANK YOU

APPENDIX 3
QUESTIONNAIRE FOR LIBRARY STAFF

SECTION A: GENERAL INFORMATION

(For all questions, please tick appropriately)

1. Name of the library.....
2. Respondent's position /designation.....
3. Number of years you have worked at the institution's library.....

SECTION B: LIBRARY STAFF TRAINING

4. What is your professional background? []
 - Post graduate degree in library studies []
 - Bachelor's degree in library studies []
 - Diploma in library studies []
 - Certificate in library studies []
 - Other, (Please specify).....

5. Have you ever been sponsored for any library -related courses, seminars and conferences by your library?
Yes [] No []

6. Are there training programmes within the library on customer care?
Yes [] No []

7. If your answer to question 6 is yes, how useful do you think the programmes are?
Very useful [] Useful [] Not useful []

Others (please specify).....

8. In your opinion, what should be done on the issue of training, to promote information use in academic libraries?
Sponsor staff for external training [] Introduce frequent in-house training []
Others Please specify.....

SECTION C: STAFF SHORTAGE

9. How many are you in your library?

10. Do you consider this number to be adequate in connection with your duties?
Adequate [] Somehow adequate [] Not adequate []

11.If your answer to question10 is not adequate, what in your opinion can be done to improve the situation/

- Employ more staff []
- Contract staff []
- Introduce over time []

Others ,(please specify.....)

STAFF ASSISTANCE TO USERS

12. Do users often approach library staff for assistance?

- Yes []
- No []

13.If your answer to q12 please

Indicate what kind of assistance they give from the list below.

- Locating materials for them through a variety of services offered by the library []
- Doing literature search on their areas of study []
- Providing individualized user education to help them search information independently []
- Any other, (please specify).....

14.How do you view library staff relationship with library users?

- Very good []
- Good []
- Bad []
- Very Bad []

15.The following are some problems you may have encountered while dealing with patrons. Please tick the ones you have encountered

PROBLEM	TICK
Users aren't able to express their needs precisely	
They don't know how to use the catalogue	
They don't know how to use reference sources	
They have low regard for librarians	
They don't know how to use electronic resources	

Evaluation of Information Literacy programme

16 Does your library offer library user education?

- Yes []
- No []

17. If your answer to q.18 is yes, what are your views on the quality of user education offered to your library?

- Very Useful []
- Useful []
- Not helpful []
- somehow useful []

Please give your reasons for your answer of the above.....

LIBRARY STAFF COMMITMENT

18. How do you view library staff commitment to work?

Very committed [] Committed [] Not committed []

If your answer above is not committed, what are the reasons for that?

.....

19. In your opinion, what can make library staff more committed to their work?.....

LIBRARY STAFF ATTITUDE TOWARDS LIBRARY USERS

20. The following are some attributes of library users. Indicate using a tick whether you strongly agree, agree, somehow agree, Disagree, Strongly Disagree

Users attribute	Strongly agree	Agree	Somehow agree	Disagree	Strongly Disagree
Library users are difficult to handle					
Library users are very friendly					
Library users are knowledgeable in library use					
Library users are unrealistic in their demands					
Library users have bad behaviors of mutilating resources					
Library users are naïve and ignorant					

LIBRARY STAFF COMMUNICATION

21. Communication is a very vital skill in assisting users to access and retrieve information. How do you view library staff communication with users?

Very good [] Good [] Poor [] Very poor []

22. In your opinion what can be done to improve communication between staff and users?

Train both users and staff communication skills []

Improve existing communication by motivating staff []

Include communication skills course in academic Units []

Others (please specify).....

THANK YOU

APPENDIX 4

Content Analysis guide

The following was under observation by the researcher

The library systems: their nature, how they operate and their present status with reference to service provision.

The User systems: Who the library users are, their frequency use of libraries, how they use library services and their attitudes to library services, what they say about each unique service.

The Library staff systems: how they carryout their day to day duties, what they say about users, what they say about their duties and the way they relate to users.

The Multi-media systems: The status of the facilities, their availability and key issues in service delivery.