

ELECTRONIC RESOURCES AND ITS APPLICATION IN COLLECTION
DEVELOPMENT PRACTICES IN ACADEMIC LIBRARIES: THE CASE OF UNITED
STATES INTERNATIONAL UNIVERSITY

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DECLARATION

This is my original work and has not been presented to any other university or college for an award of a degree or certificate.

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DEDICATION

I dedicate this project to my parents, brothers and sisters, friends, colleagues and all those who constantly encouraged and motivated me to undertake this studies.

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My sincere appreciation first and foremost is to God who has granted me the gift of life without which nothing could have been possible. To my supervisors Dr. Makori and Dr. Kingori for their guidance throughout this study. A special word of appreciation goes to my colleagues Winnie Morogo, Julius Mugoya, Elizabeth Mbulu, Daniel Ogenga, Rose Onyango, Penina Talam for the never-ending encouragement. Special mention goes to Arnold Mwanzu for his resourcefulness and patience in administering the questionnaires.

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ABSTRACT

The swift emergency and growth of information technology has fundamentally changed collection development practices in libraries. Academic libraries are tagging along this fast change by bringing more resources for developing and administering electronic resources. The purpose of this study was to examine electronic resources and its application in collection development and management practices in academic libraries using the case of United States International University. The study was guided by the following research questions: Which factors influence the application of electronic collection development practices in an academic library? What are the type of electronic resources acquired in an academic library? What are the perceptions of users towards electronic resources? What strategies are applied by the library in relation to acquiring electronic resources in the library? And finally, what barriers hinder the acquisition of electronic resources? The study used both qualitative and quantitative methods. Stratified random sampling was used to collect data from postgraduate students while purposive sampling was used to collect data from the library staff. The study used structured questionnaires to collect data from 110 graduate students and 25 library staff. Statistical Package for Social Sciences was used to analyse quantitative data collected and represented in form of tables. Findings from this study revealed that electronic resources are acquired and frequently used in the library. Electronic resources acquired in the library were user-friendly, easy to navigate and provide current information. The study also found that increasing the number of internet access, and providing remote access leads to high usage of electronic resources. Electronic resources are monumental in addressing challenges users face in relation to access and use of library resources. The study findings revealed that inadequate information communication technology tools and access terminals was hindering the adoption and usage of electronic resources. The study recommends that constant training, increasing number of access points and providing of key relevant information is key to a wider usage of the electronic resources

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LIST OF ABBREVIATIONS AND ACRONYMS

ACRL	Association of College Research Libraries
CDP	Collection Development Policies
CUE	Commission for University Education
ER	Electronic Resources
INASP	International Network for the Availability of Scientific Publication
EIFL	Electronic Information for Libraries
KLISC	Kenya Libraries and Information services Consortium.
USIU-A	United States International University-Africa

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter sets off by introducing the background of the study, elaborates the context of the study, and points out the problem statement. It further lays out the purpose of study alongside the study objectives. The main questions directing the research is highlighted in this section; linked with the significance, assumptions and scope of the study. The chapter winds up with a definition of operational terms and concepts and a short chapter Summary.

1.1 Background to the Study

Universities are a major contributor to the development of nations because of the teaching and training programmes targeted at meeting the demands of various sectors of the economy. The prevailing conditions surrounding individual institutions and countries has had an impact on the way the institutions are able to achieve their goals. The situation is more pronounced in developing countries like Kenya. Nyangau, (2015) abstracts the challenges that institutions of higher learning are facing as overcrowding, ever growing demand, declining funding, outdated curricula declining quality, crumbling infrastructure, poorly equipped libraries and rigid management structures. (Nyangau, 2015) further observes that although there have been efforts to expand the public higher education system, rapid growth in demand has consistently outpaced supply. There is a worldwide economic decline leading to financial cuts backs to institutions such as libraries. According to Rosenberg, (2006) no library is yet to find viable sustainable alternative to government funding and as such libraries are implementing income generating services like photocopying and inter-library loans to supplement their budgets, however this never meets the costs of running a library service.

Libraries play an important role in developing informed and educated, and empowered nations. However as observed by Fourie & Meyer, (2016) libraries are facing many realities and

challenges: poor infrastructures, lack of funding, lack of well-trained staff, policies and government support. Libraries come to life mainly because of collection which forms the nucleus of any libraries activity. Montano (2014) observes that collection development life cycle has fundamentally changed. This changes as noted by Khan & Bhatti (2016) present librarians with the challenge of having to deal with the enormous growth of information resource materials matched with fluctuating prices heightened with competition for the library budgets, limited space for preserving print collections and above all the ever-changing user expectations. There is no single library that can house a comprehensive collection that has been developed for all current and potential users, hence the need to provide users with access to information sources not locally held in the library collection (Buchholz, 2011). Having electronic access to information gives patrons of an option to access resources that are not owned by a specific library. Information Technology enables libraries to function effectively and efficiently. In the phase of increasing information resources available in various media and the increasing number of users; libraries are investing both financial and human resources to seize these advantages Kavulya (2006) asserts that paper library have great limitations that call for automated and electronic libraries. However, the author notes significant implications of digital information as a burden to libraries because of the quantity of information published online and the need to digitise printed documents. Libraries worldwide need to take advantage of technology in order to survive. According to Buchholz (2011) users can be served much better if there is access to other library collections through resource sharing and electronic databases

Collection development is influenced by technology both as a means for information creation, access, and delivery; but despite all the technological influence Peggy (2014) points out that collection development practices will change while the mission of libraries will remain constant and that libraries will still have to ensure that information of all kinds is acquired,

organized, accessible, and preserved. The library environment is undergoing a fast and dynamic revolution resulting in new forms of library collection like electronic resources.

Electronic resources make it possible for libraries to extend their collections beyond the confines of the physical walls leading to new community of resources and information seekers (Peggy, 2014). Libraries are turning to providing electronic resources because of decreasing budget, limited space, increasing cost of building new resources coupled with a higher cost of repair and replacement, demand from users for electronic resources, and the changing institutional mandates such virtual campuses and distance learning (Muya, 2014). According to (Khan. G & Bhatti.R, 2016) academic libraries are changing their mission and visions to realign themselves into the requirements of modern times. Academic Library patrons and mostly post graduate students use sources of information other than the library (Rosenberg, 2006). And increasingly to them these sources are more important than the library. The usage level is of electronic resources is still very low in comparison with student and staff population; availability is one thing while effective usage is another. Traditionally, academic libraries had the view that users will find their way to the library. This perspective according to Muya (2014) marginalized the need to find out user's needs resulting in the low usage of available resources.

Electronic resources have brought forth the need for information and digital literacy programmes. Information literacy is an important function amongst librarians as library processes are now offered electronically (Taiti et al, 2013). Information literacy is having the competency to find, evaluate, manage and use information from a range of sources. The present availability of electronic information available in different medias and the ease of searching for online information using search engines; it is important for users to evaluate this information sources. According to Kavulya (2006) in order to facilitate efficient use of available information librarians need to equip users with information literacy skills so as to

enable users to be efficient and effective in using print and electronic resources. The researcher further points out that the case for information literacy programmes is even stronger for undergraduates joining university with limited experience and information skills. Information literacy can be administered during student orientation or when conducting reference services.

Libraries are adapting new strategies by transforming the customary services through: automating library processes, developing user-driven collections by involving the faculty in the selection of information resources, instructional training and providing user orientation programs and altering the library operation hours. Convenience, time saving and system friendliness affect aspects of user information seeking. According to Muya (2014) selection of information resources by accessibility and use will be very critical because libraries are not the first port of call for users. For many students, libraries have been considered as the last resort because they think it is a waste of time and a place of last resort. From my own experience, the quality of resources is the major reason for visiting a library. According to Makori, (2010) academic libraries are modifying their existing infrastructures as a way of responding to the needs and demands of patrons. New products are being introduced including wireless services and electronic information resources. The university of Nairobi library recently installed and upgraded their wireless services necessitated by changing times and new user demands. Information Technology enables libraries to function effectively and efficiently. Academic libraries have not been singly affected by technological advancements. The changing shape of teaching and learning in higher education has been one of the key reasons for the changing approach of academic libraries. According to Tait et al (2013) studying is now offered in many different ways and libraries are no longer the traditional silent study rooms; libraries are transforming to more flexible and dynamic spaces suited to social and group learning.

In the phase of increasing information resources available in various media and the increasing number of users; libraries are investing both financial and human resources to seize these advantages Kavulya (2006) asserts that paper library have serious limitations that make automated and electronic libraries a matter of necessity. However, the author notes significant implications of digital information as a burden to libraries because of the quantity of information published online and the need to digitise printed documents. Libraries are forming consortiums in order to reduce the high cost of electronic journal subscriptions. According to Kavulya (2006) working through consortiums makes it possible for libraries to access and manage various electronic journals on a continuing basis. There is demand for comprehensive library collection in terms of quality and quantity because users are demanding for unlimited and current information from libraries; and on the other hand, publishers are publishing electronically (Peggy, 2014).

University libraries in Kenya are known for their quality of collection. For example, the USIU library is recognized as a modern library that can be compared to those in the developed world. It could be viewed as an ideal library with which other academic libraries in the region could benchmark with. Other academic libraries in Kenya like Strathmore, Kenyatta, JKUAT, Daystar, KEMU, UON, Nazarene, Kabarak, Maseno and Catholic have integrated electronic resources to their collections (Gathoni et al, 2011)). This has been heightened by the recommendations by the CUE for universities to incorporate electronic sources of information in their collections. We are seeing a trend where libraries are adopting strategies that necessitate for a comprehensive and inclusive collection in the changing times. Libraries in Kenya are being rebuilt with the concepts of ultra-modernism and postmodernism. Muya (2014) asserts that the growing trend of postmodern thinking in the academia is leading to further research and rethinking of the traditional librarian's tools and therefore academic librarians should be looking into the most acceptable ways to develop strategies and service to serve users better.

1.1.1 Context of the Study

United States International University-Africa (USIU-Africa) is a private, independent, non-profit university located on 120 acres of land in Kasarani, Nairobi. The university committed to offering students a worldwide school of thought through a modern curriculum which offers an understanding of the current global demands. Students enrolment stands at over 5000 students from different nationalities. About fifteen percent of total enrolments are international students. The University offers undergraduate and graduate degree programs through Chandaria School of Business, School of Humanities and Social Sciences and its School of Science and Technology. USIU-Africa is accredited in Kenya by the Commission for University Education (CUE, 2014). The University's vision is to be the leading institution of higher learning worldwide through advancing intellectual and knowledge discovery skills that enables students compete in impact this technological changing world. The university offers high quality undergraduate and graduate academic programs which results in high order thinking, literacy, global understanding and multicultural perspective, preparedness for career, leadership and ethics, community service and development. The University has three schools that offer various undergraduate and graduate degree programs including Chandaria School of Business, School of Humanities & Social Sciences, School of Science and Technology. USIU library is an ultra-modern facility that all the resources necessary to support teaching, learning and research. The Library considered an intellectual hub of the university has a seating capacity of 1200, and can accommodate over 300, 000 volumes of books as well as an inviting space that encourage collaborative learning. This is achieved through offering a variety of services and technologies such as circulation services, short loan services, user instruction services, multimedia services and online collaboration services. For research, the library provides a wide array of print, non-print, and electronic resources and users have access to more than 210, 666 volumes on site as well as electronic resources such as "AJOL (Africa Journal Online),

American Chemical Society, Annual Reviews, BioOne, Britannica, Business Monitor International, Cambridge Journals, Chicago Journals, Cochrane Library, Directory of Open Access Journals, and EBSCO host''. At the beginning of every semester the library conducts user training for various library services; this is circulated through the library website and newsletter's (USIU Catalogue 2015/2016; USIU Factsheet 2016)

1.2 Statement of the Problem

The discourse that has dominated the information science field for a long time is the impression that technology is a "disruptive innovation" moreover technological changes on key library processes and practices such as collection development and electronic resources have brought the spotlight on the role of physical libraries in the 21st century (Tait et.al, 2013). Collection development is regarded as an essential library function largely because it influences the scope of evaluating quality services that a library is providing Khan, (2016). According to (Muya 2014), through the years, libraries have been measured and valued for their collections. The trend of printed materials is decreasing while the need for electronic resources is increasing; this is heightened by the fact that most academic libraries will have to deal with the escalating cost of subscriptions for electronic resources as observed by (Connaway, 2009). Library budgets are shrinking while the cost of sheltering the collections is rising the physical space is becoming scarce.

Emerging trend among academic libraries is combining both print and electronic resources as hybrid libraries are now favoured by users and publishers. The question that arises for libraries is finding a balance between paper and electronic information resources. Kiondo, (2004) points out the fact that many academic libraries have a healthy collection of print resources and therefore the need to adopt hybrid collections as a fair route to take. Majority of university students are already computer literate and are accustomed to electronic media, they crave

electronic resources and like students of every era their study schedules do not always conform to library hours, (Connaway, 2009). Due to this student are accessing online resources from various locations and at times outside the library operation hours. This has resulted into reliance on google and other search engines which compromises on scholarly standards. The conventional library processes have been impacted significantly by amount of electronic resources. Information communication and technology makes it possible to foresee a different way in academic library collection development process (Ali, 2014).

1.3 Purpose of the Study

The purpose of this study was to examine electronic resources and its application in collection development practices in academic libraries using the case of the United States International University-Africa.

1.3.1 Objectives of the Study

The study was guided by the following specific objectives to;

- i. Examine the potential application of electronic collection development practices in the selected academic library.
- ii. Establish the type of electronic resources acquired at the selected academic library.
- iii. Find out the levels of user satisfaction towards electronic resources in the academic library.
- iv. Find out the appropriate strategies for acquiring electronic information resources in the academic library.

1.4 Research Questions

The study was guided by the following research questions:

- i. Which factors influence the application of electronic collection development practices in an academic library?
- ii. What are the type of electronic resources acquired in an academic library?
- iii. What are the perceptions of users towards electronic resources?
- iv. What strategies are applied by the library in relation to acquiring electronic resources in the library?
- v. What barriers hinder the acquisition of electronic resources?

1.5 Significance of the Study

This study will serve as a useful resource for academic librarians in carrying out effective collection development of electronic resources. Acquiring information on user behaviour informs collection development decisions. Ascertaining the ability of a library in terms of its financial, technological and human resources can be a means of measuring the application of electronic resources in collection development. Having a combination of utility and availability continues to spur the migration to online resources and when faced with the decision to acquire a resource in print or digital, most librarians default to electronic resources.

Findings of the study could be a signal of what extent electronic resources have impacted the collection development process. The results could also be a pointer as to whether the current collection development practices are sufficient to cover the emergence of electronic resources. The study of electronic resources application in collection development provides for two crucial needs: for academic libraries, it provides a general review of an issue that is dominating the information profession; and for policy makers it is an indication of changing times necessitating revising and updating the collection development policy and collection development procedures.

1.6 Assumptions of the Study

- a) Academic library provides electronic resources that support teaching, research and learning.
- b) Customers in academic information organizations utilize electronic resources.

1.7 Scope of the Study

This study was grounded on an educational institution of higher learning centralizing on informational professionals and postgraduate students. The aim of the study was to electronic resources and its application in collection development practices in academic libraries using

the case of the United States International University-Africa. The targeted population of the study was 950 respondents with a sample size of 120. The findings allowed for a good representation and generalization to libraries of higher learning in Kenya.

1.8 Limitations of the Study

The study was conducted at United States International University which is a private institution. The outcomes of the study may not necessarily reflect the true situation in other institutions of higher learning in Kenya.

1.9 Definition of Operational Terms and Concepts

Academic Library

This refers to a facility that collects information resources both in print and electronic format and makes them available to the users who include the student and the faculty for academic and research purposes

Acquisition

Process of selecting, ordering, and receiving materials for library collections by purchase, exchange, or gift, which may include budgeting and negotiating with outside agencies, such as publishers, dealers, and vendors, to obtain resources to meet the needs of the institution's clientele in the most economical and expeditious manner.

Collection Assessment

Measuring the level with which available resources meet the organizational and clients demands.

Collection Development

Process of planning and building a useful and balanced collection of library materials over a period of years, based on an ongoing assessment of the information needs of the library's clientele, analysis of usage statistics, and demographic projections, normally constrained by budgetary limitations.

Collection Management

Process that covers collection development and decisions about withdrawal, cancelling serials, storage, and preservation

Electronic Resources

Resources that users access electronically via a computing network from inside the library or remote to the library

Library users

Users of the library services and resources offered by a given library. Users are also variously

referred to as patrons, customers and clients.

Selection

Process of determining which materials should be added to a library's collection.

User Centered

Assessment method that focuses on how the collection is being used and how well it meets user needs.

1.10 Chapter Summary

The chapter covered in great details the background to the study and also talked about the USIU library context. The chapter also dealt with the problem statement and also talked about the objectives of the study together with the research questions guiding this study. The chapter concludes with a definition of operational terms and concepts used in this study.

CHAPTER TWO LITERATURE REVIEW

2.0 Introduction

This chapter handles the review of literature and some of the prime areas that are covered in this section include electronic resources from a global context; electronic resources in academic institutions in Africa and Kenya. Another pertinent issue and guided by the research question include underutilization of electronic resources. The chapter details empirical and intellectual studies in this research area and spotlights the existing knowledge Gap. This is exhibited with a conceptual framework showing essential variables identified in the research problem, the chapter concludes with brief summary.

2.1 Academic Libraries

Libraries are organizations obligated with collecting information resources and making them available for users. The need for constant information postulated by the rate of change suggest a shift in processes and activities of the library (Walther, 2010). For a long time, academic libraries have been fostered by printed collections, but with the changing environment users are expecting libraries to offer places for study rather than places that collect and hold books and that old-time collection development practices have led to capacity filled shelves but not with quality and current resources (Thomas, 2011). An academic library should strive to provide quality and the most current information resources which supplements teaching and learning, this is a requirement by the commission of university in Kenya (CUE, 2014). Academic libraries in Kenya are now facilitating access to electronic resources by subscribing to various electronic journals and databases for all categories of users. New development amongst universities in Kenya is different style of teaching and learning; open and distance learning, virtual campuses are the current vogues in Kenya. According to Muya (2014)

academic institutions all over the globe are expanding their footprint in Kenya and suggests that globalization of education calls for reorganization of library services. The prerequisite for libraries is offering specialized services to accommodate different needs given the varied nature of the academic users according to Rosenberg, (2006) teaching staff and more so postgraduate are turning to other sources of information rather than the university library as they find that these sources are equally important.

Academic libraries are yet to find a sustainable option to government funding; and as observed by Makori, (2010), competition for funding has made most university libraries in Kenya to operate without basic information products and services. Information infrastructures, internet connectivity, and web portals that aid access to electronic resources are poor in most institutions of higher learning in Kenya (Makori et al, 2016). Rosenberg (2006) asserts that management policies and practices are the cause of complaints by library staff and students against the library and apparently, there is lack of communication amongst staff and users through available channels leading to poor management of existing resources. She further observes that most academic libraries have the purchasing power. Kiondo, (2004) asserts that African academic libraries have been providing electronic information for decades but the fundamental problem is finding out the extent of user satisfaction with the collections in terms of financial value, effective use of the resources and availability of necessary skills to use electronic resources. 'Availability is one thing, effective usage is another' according to (Were, 2010) though availability of e-resources has been well addressed in Kenya, usage level is still very low in comparison with student and staff population

2.2 Collection Development

The information and technology era characterised by globalization and increase in search for knowledge spotlights the importance of university libraries. Khan & Bhatti (2016) observe

that academic libraries have expanded and increased coupled with functional reorganization of key processes and practices. Collection development is one of the areas in the library that has significantly affected by technology. According to Johnson, (2009), collection development involves building a collection that is balanced through evaluating the requirements of users by analysing the available budget and the usage statistics. Evans & Saponaro, (2005) state that collection development starts with user needs assessment then formulating appropriate policy formulation. Dhanishtha, (2013) further augments this by saying that an effective collection development process should seek to address the present and future needs of a library. Khan & Bhatti (2016) observe that there is a universal agreement amongst librarians on the need for libraries to have a written collection development policy. They assert that collection a development policy “determines nature and scope of the collection, helps in weeding and evaluation of collections sets priorities, calls for commitment to organizational goals, provides inclusion and exclusion guides, eliminates personal biases in selection, helps to maintain consistency by orienting new staff and controlling staff and aids in resolving complaints.”

2.3 Collection Development and Information Technology Transformation

For a long period of time, users of libraries have been accustomed to the idea of libraries consisting of purely print collections. (Morgan, 2016) points out that libraries collected and developed what was called core collections and borrowed from another library to substitute their collections. With the coming of electronic resources user expectations has also changed. Users are expecting access to resources at any given time and in any location at the click of a button. According to Morgan, (2016) users get disappointed when instantenous access fails. The electronic environment is characterised by easy and faster communication between libraries, publishers, vendors and suppliers (Kiondo, 2004). Automation characterized by the use of computers in routine library services has changed the service delivery modes resulting in reduced resources processing time and improving efficiency of service delivery (Lisa M. &

Melissa H., 2004). The net effect of this is an enhanced user experience, better services and access to previously unavailable resources. One of the biggest changes in the collection development process is the composition and diversity of resources to include paper, and electronic resources (Johnson, 2009). According to Montano, (2014) the biggest changes in collections development include transformation of resources, origin of information materials, composition, ownership, volume and diversity of the materials. This means that libraries are no longer the custodian of physical products and all they are required to do is subscribe to licenced products for a certain period of time (Perrone, 2009). Electronic resources have also provided an avenue for a wider access. For a long time, libraries, have been habitual collectors, stores and disseminators of information meaning that users have been coming to the library physically to utilize information resources (Kebede 2000). According to Muya, (2014), convenience, time saving and system friendliness are affecting user information seeking behaviours and that selection of resources is very critical since libraries are not the first port of call for users.

Collection development is rationalized by the changing model information resources publishing and sales requiring processes such as online selection of resources, item verification, order preparation, collection evaluation and assessment, budget management, and subscription renewal. Papatheodorou (2006) points out that transformation of resources from print has brought forth new models of searching and delivery of information. According to Muya (2014) this is likely to continue since library users own smartphones iPad and tablets and are constantly seeking for information and as such tools such as social media, online and hybrid learning and mobile devices will be the defining factor in the new environment. The addition of electronic resources in academic library's collection has been increasing over the years across most subject disciplines. Several studies that have been done to find out how libraries are integrating information technology into their collection development practices. Lynch, (2009) opines that

the impact of the transition to electronic information goes far beyond the library and promises major changes in a wide range of social, institutional, economic, legal and political structures. Khan & Bhatti (2016), reckon the similarity between the old form of collection development and collection development of electronic resources. They paint a picture of the need to collaborate and improving of skills for collection development staff.

2.4 Electronic Resources in a Global Context

Electronic resources offer many advantages to libraries; that of saving space and staff time; however as pointed out by (Johnson et. al; 2012), they are not the solution to all of libraries financial, space, access, and service problems but instead complicate collection development practices for libraries (Chen,2012). As the focus for collection development shifts to electronic resource management; it confirms to the increase financial and personnel allocation to electronic resource collection. The remarkable growth of electronic resources in academic libraries corresponds to technological advancements Kichuk (2010) points out that electronic resources consume a bigger share of materials acquisition's budget; and notes how internal and external factors affect the growth of electronic resources. Molteni (2007) did a study on electronic journals collections in 27 Argentine private academic libraries with a focus on selection & acquisition, human resources, technical processes, informatics, marketing, user services, library cooperation, and publishing. The research findings indicate a slow but steady increase in number of universities granting access to electronic journals.

Electronic resources are a very common among university students and many students and faculty prefer to use electronic resources as they have current and relevant information. Mostofa, (2013) study on the use of electronic resources amongst students in Bangladesh revealed a common understanding that electronic resources are prominent in the library and students are the majority users. Nevertheless; the study points on the need for Asian academic

libraries to update their infrastructure and training programs to support the new technologies. Chen, (2012) observes that university scholars conceive electronic resources as authoritative sources of information and that libraries academic libraries should make a point of providing information materials in electronic format. Students are not the only users of electronic resources in point of fact majority of library and academic staff members prefer electronic sources to print text. This was observed by Erdamar & Demirel (2014) in a study in Turkey at the university of Turkey. The study reveals that continuous access and electronic resources format as the main reason for faculty preference to electronic resources. Academic Law libraries in the united states are going the digital route because of the rewards that come with electronic collection. According to Lee et al, (2013) several factors influence the application of electronic collection in academic law libraries in the United States. The authors comment that print collections present logistical barriers resulting in increased acquisition and processing costs. They further affirm on additional shipping cost and delivery delays as factors necessitating a shift to electronic resources. For the first time, electronic resource sales have averaged out sales of printed text. (Lee et al, 2013). This is because of financial and time saving factor necessitating the shift in academic law libraries to licensing electronic resources rather than buying print resources. In spite of the predictable trend gravitating towards electronic and paperless resources; Lee et al, (2013) paint a different picture of a long way to go for academic law libraries in the United States. The advantages and disadvantages of purchasing subscriptions remains a balancing act for librarians compounded by the high cost of publishing in the face of declining budgets; this is the reality in most academic libraries across the world.

2.5 Electronic Resources in Academic Institutions in Africa and Kenya

Several studies have been done in African academic institutions on issues touching on electronic resources and collection development practices. A recent study done in Tanzania by Katabalwa (2016) indicates that electronic resources are an important and useful resources that

supports learning and research in higher learning institutions. The study suggests that that most postgraduate students in Tanzania use electronic resources because they are relevant and very useful for coursework and research. The highlight from his study is that electronic resources are up to date, some are freely available, accessible anytime, and anywhere within the University compound, and that they can be downloaded, printed and stored. Okello-Obura & Magara (2008) investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. The study revealed that users relished from the advantages provided from electronic resources and had a good time accessing quality information from a wide range of sources. The process of library mechanization and automation has significantly changed the conventional library practises to a more varied effective and efficient process. The automation of libraries in Nigeria according to Ahiauzu, (2008) has allowed for a business model of transformation in providing library services. There is a change from printed text to electronic resources amongst academic libraries in Nigeria signifying a fundamental change in collection development process however this transformation is cheaper and pertinent if libraries provide supporting infrastructure (Ahiauzu 2008). Academic libraries in Africa are in the process of developing technical infrastructure to support the new models of learning. A study done by Agboola, (2010) on how faculty and students use electronic and print resources found that most preferred electronic resources to print textbooks in spite of the lack in skills and supporting infrastructure. Subscription to online databases in Nigerian universities is the most effective way in providing access electronic resources. The National Universities Commission (NUC) in collaboration with Nigerian University Libraries Consortium (NULIB) have collaborated to ensure that university libraries in the country subscribe to relevant online databases to enhance learning, teaching and research in our universities (Ahiauzu,2008).

Academic faculty, information professionals and scholars are well informed on the existence and the integral role of electronic resources; however, in spite of this reality the level of use is relatively low. Several factors including lack of reliable power supply, high cost of internet and telecommunication networks, and restricted access are cited as reasons for the slow uptake of electronic resources among institutions of higher learning in Africa. (Malemia, 2014; Mutula 2008; Ndungu, 2016). The demand and broadening of university education in Kenya has given rise to a spike of student enrolments in academic institutions (Nyangau, 2015). This demand has necessitated a change in the modes of delivery to a more cost effective and sustainable model. The growth and development of technology has demanded for a change in library practices and services. Modern technologies have left libraries with no alternative but to adapt to new models such as the development of electronic resources.

According to Gathoni et al (2011), use of electronic resources increases when awareness levels are high and so marketing is an important component for academic libraries in Kenya. This is not the case in most libraries because the trainings carried out at the start of a semester are not sufficient and regular. Academic library users still prefer more quiet spaces for reading and computers, this is in spite of the fact that electronic resources can be accessed remotely and via libraries websites. Library websites inform users on what resources are available in the library and hence seen as an effective marketing tool. For example, USIU-A library website acts as a gateway for the library's collections, services, training programmes, electronic resources and digital repository. Kenyatta University subscribes to journals and databases, chat with an expert, ask a librarian, off campus e-resource access, extended library hours and a 24-hour reading area. The library conducts information literacy sessions to Postgraduates, Undergraduates and staff on a weekly basis. This is a picture that mirrors in many libraries of higher learning in Kenya as majority of libraries have library catalogues, subscribe to electronic journals & databases, and have developed institutional repositories.

2.6. Underutilization of Electronic Resources

Information technology influenced library practices in academic libraries resulting in a change in ways of conducting research and learning largely because of electronic resources. Garofalo, (2012) observes new developments such as smartphones and tablets as enablers of electronic resources use due to flexibility and off campus search capability. The unfortunate reality is that users are turning to search engines rather than libraries resources resulting in underutilization of electronic resources; this calls for the need for libraries to promote resources and services because many users are not aware of all that a library offers. Electronic resources offer several advantages to the students' academic performance and the larger institution. Makori et al. (2015), observe that through institutional repositories a university's intellectual output is visible both nationally and internationally resulting in a higher webometrics ranking. This notwithstanding; it is well known many institutions and patrons all over are not seizing the available opportunities due to lack of facilities, skills and general unawareness; resulting to underutilization of available resources. In the electronic world in comparison to the print environment; most patrons find it difficult to find relevant and quality information. This vast amount of electronic information brings forth the issue of provenance and legitimacy of information (Connaway, 2009).

2.6.1 Lack of Awareness of Available Resources

According to Johnson, (2009) collection development must consider not only the current users needs but also future needs. For this to happen libraries need to have constant communication with clientele in order to collect routine information on collection development. There is universal acceptance that users of academic libraries do not know on the existence of available resources. Kavyula, (2004) notes that libraries do not keep patrons informed of online resources because there is so much online information. Kennedy (2013) further observes that connecting users to relevant resources in the digital environment is becoming a pertinent issue for

academic libraries. Available literature has linked the unsatisfactory use of electronic resources to the general lack awareness (Ndungu, 2016). Garofalo, (2012) states that library staff need to demonstrate the value of a library in an institution by engaging in activities that increase the visibility of its resources. Institutions of higher learning are considering social media as a mouthpiece to communicate, engage and build associations patrons in the digital environment. Njoroge & Kang'ethe (2013) observe that social media incorporation at Kenyatta university library has enabled it to maintain the status quo as a postmodern library. Social media has benefited the library in many ways; there is constant communication with users, the library markets and enlightens users on electronic resources using social media and the library collection visibility has been enhanced to users far away from the library. According to Kamau & Symphrose (2008), marketing of available resources is the most certain way of maximising the use of electronic resources. Academic libraries are employing some marketing strategies such as through the library internet, brochures, posters and through conferences.

2.6.2 Lack of Training and Information Literacy

Electronic resources require users to carry out activities that require adequate computer and practical skills necessary to make use of the growing range of electronic resources, and hence in the digital era university students should have the ability to effectively explore digital resources (Tsakonas & Papatheodorou, 2006; Tella et. al. 2007; Obura & Magara 2008). According to Connaway, (2009) library patrons lack the necessary online searching skills and this could be attributed to the fact that searching success depends on the quality of indexing, keywords, and the effectiveness of the search engine. According to (Kamau & Symphrose , 2008) Information literacy programs enables patrons to utilize electronic resources as users that are information literate demand more information.

2.6.3. Licensing

The transition to electronic journal presents fresh administrative challenges to librarians, which include how to carry out processes such as selection, acquisition, cataloguing, and indexing of contents (Johnson 2009). Libraries are required to acquire the right subscription information, successfully place orders, retrieve and download the texts, and provide readers with adequate access information. E-Journals are acquired under licences for using the material over a specified period of time and under stipulated conditions and therefore some of the key issues is to ensure that links remain valid and active. Libraries are collaborating to purchase and negotiate for electronic resource subscriptions. Kenya Libraries and information services consortium aims at helping libraries manage the increasing cost of digital information through collective subscriptions. Electronic information for Libraries promotes electronic resources availability for library users in developing countries. According to Kamau & Symphrose,(2008) librarians in Kenya have taken initiative to form consortiums for purposes of improving the sharing and accessibility of resources. Through consortiums libraries in Kenya have been able to access resources that otherwise they would have been able to subscribe as individual libraries.

2.6.4 Connectivity and Bandwidth

Makokha & Mutisya, (2016) report on the status of e-learning in public universities in Kenya indicate that all public universities in Kenya have installed both fibre and wireless connectivity, however, the report indicates that bandwidth and hotspots are not sufficient. According to their findings this is largely attributed to high and prohibitive internet connectivity costs and poor internet signal to far off areas. This finding corroborates to those (Echezona & Ugwuanyi, 2010; Aluoch,2006) who observe that internet connectivity in Africa is expensive, scarce, unreliable and inadequate to support provision of electronic resources. Library patrons experience slow response time which is frustrating and more pronounced especially for remote

users trying to connect from outside the library, according Johnson, (2009) time and again technical problems arise with no assistance available.

2.7 Empirical and Intellectual Studies

Information and Communication Technologies has awakened the discussions on the possible challenges and opportunities for academic libraries. Automation of library processes and services has significantly improved users experience because the turnaround time required to access information materials. The reduction of physical text stocks and a subsequent shift in focus to electronic resources has been termed as integral transformation of the long-time collection development. Previous studies that have been done across the globe on electronic resources and collection development have touched on several key issues.

Empirical studies done have indicated that academic institutions are facing challenges of overcrowding, ever growing demand, declining funding, outdated curricula declining quality, crumbling infrastructure, poorly equipped libraries and rigid management structures (Nyangau, 2015). A hard fact accept is to the fact that libraries are yet to find viable sustainable alternative to government funding and as such many are resorting to cost recovery and income generating services like photocopying which never meets the costs of running a library service (Rosenberg, 2010). Other significant study done by Montano (2014) reports on the fundamental change in the collection development life cycle. This changes present librarians with the challenge of having to deal with the enormous growth of information resource materials matched with fluctuating prices heightened with competition for the library budgets, limited space for preserving print collections and above all the ever-changing user expectations (Khan & Bhatti (2016).

2.8 Knowledge Gap

From the above empirical and intellectual studies it is observable that there is a substantial amount of literature on various key issues as of the area of study at both the national and international level. However there still exists a great deal of intermediate literature on fundamental issues of collection development practices and electronic resources in academic libraries. From the examined literature and demonstrated above there is a healthy ground to argue that electronic resources are of crucial importance to users of an academic library. This study develops a cornerstone for measuring the application of electronic resources in collection development and management. This study intends analyse collection development, electronic resources in an academic library setup. Essentially the findings could open a floodgate into studying electronic resources and collection development in different types of libraries both at local and international level

2.9 Conceptual Framework

This study developed a conceptual model to show the association among essential variables identified in the research problem. The conceptual framework is essential in visualizing the relationship around the key areas concepts of the study. Figure 2.1 indicates the independent variable as E-resources while the dependent variables (technology, budget and finance, infrastructure, & human resources support). The Intervening variable are training, user awareness, licensing, connectivity, and marketing).

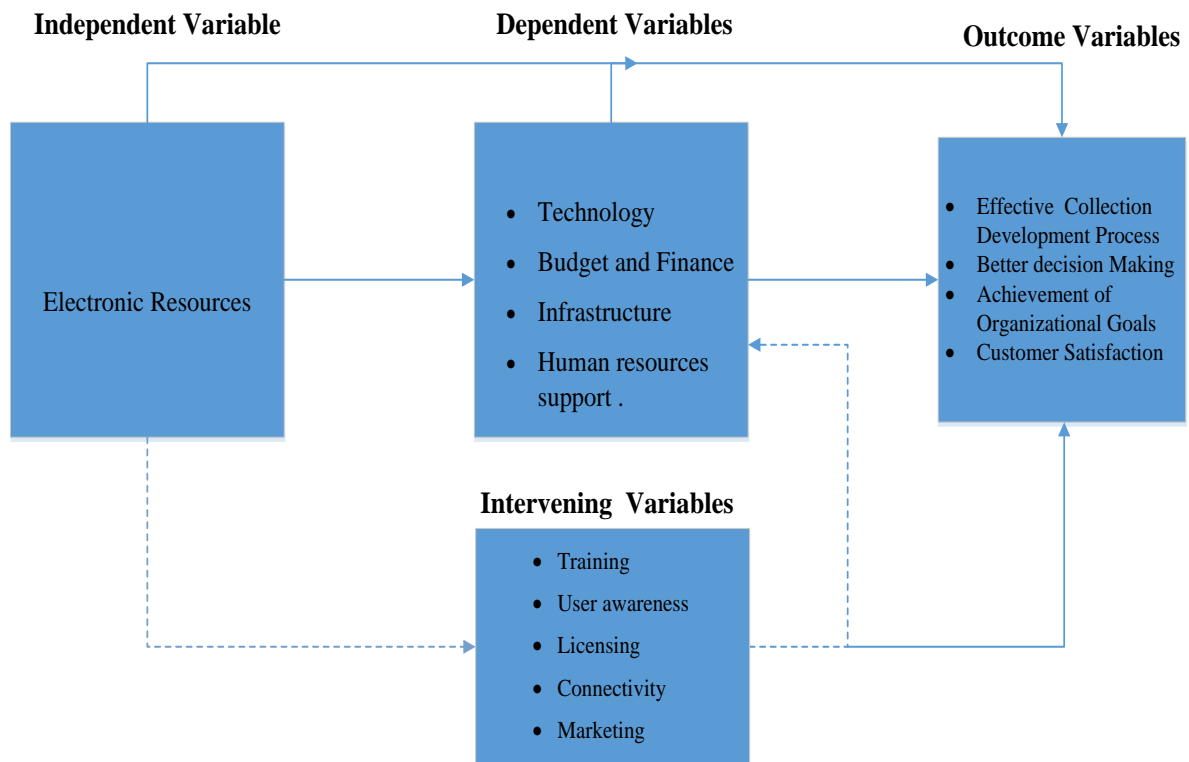


Figure 2.1: Conceptual framework (Researcher, 2016)

Manipulating the dependent variable for example allocating sufficient finances and budget could result in effective collection development process, assist in better decision making of collection development process and ultimately achievement of organizational goals. Additionally, training, creating awareness, licencing, and marketing are mooted as intervening variables

2.10 Chapter Summary

This chapter discussed collection development in its entirety. The chapter started by covering academic libraries, collection development and electronic resources practices at global level then the African and Kenyan context. Challenges of collection development also formed a segment under this chapter. Empirical and Intellectual studies are also highlighted. Knowledge gaps intended to be filled by this study is also highlighted.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter addresses the study's research methodology and centres around the research design used, various methodological issues including: population choice, sample size and sampling techniques, data collection methods and research instruments.

3.1 Research Design

According to (Cooper and Schindler, 2011) research design is a strategy for achieving the research objectives by answering the research questions. The study will employ a case study approach where both qualitative and quantitative research design methods will be used. Combining qualitative and quantitative methods enables for a greater validity and also ensure completeness and sufficiency in description. The USIU-A Library will be the case study and the target respondents will be librarians and postgraduate students drawn from the Chandaria school of business.

3.2 Area of Study

This study was conducted at the United States International University in Nairobi Kenya. The university is located in Kasarani area, off Thika road. The USIU-A library is one of the modern academic university library in Kenya with a comprehensive collection of print and electronic resources and hence it is most suitable representative of library institutions and by a large extent the findings of the study can be generalized as a view of Kenya.

3.3 Target Population

Cooper and Schindler (2011), report that a population is the total collection of elements whereby references have to be made. Bhattacharjee (2012) further states that a sampling frame is an accessible section of the target population from where a sample can be drawn. The target

population of this study comprised of USIU-A library staff who were divided into two categories namely: top managers and sectional heads. This study also used postgraduate students from the school of business registered for the fall semester of 2016.

3.4 Sample and Sampling Technique

Bhattacharjee (2012) notes that for stratified sampling technique, the sampling frame is divided into homogeneous and non-overlapping strata, and a simple random sample is drawn within each subgroup. The study used stratified random sampling technique to divide the sample frame into the different strata. These give every unit in the population a chance of equal selection for the study thereby increasing the statistical efficiency. Purposive sampling method was used to select the librarians that constituted top management and sectional heads. Snowball sampling technique was then used to select the respondents from each of the strata. According to Bhattacharjee (2012) in snowball sampling, the researcher identified a few respondents that match the criteria for inclusion in the study, and then asked them to recommend others they know who also meet the selection criteria in this case fellow classmates and other postgraduate students. The study relied on a library staff member and one student who identified and approach the other respondents.

3.4.1 Sample Size

In this study the sample size consisted of 10 library staff consisting of 2 top managers, 8 sectional heads and 110 post graduate students making a total of 120. The sample size selected was considered truly representative of the population, this was 12.6% of the total target population was a qualified percentage for research sample population according to (Snyder & Dillow, 2012). Exceptional consideration was made to ensure that the two categories of staff and the students were well represented. Table 3.1 Pg. 29 shows the percentage sample size of the study compared to the total target population.

Table 3.1: Sample Frame

Category	Target Population	Sample size	Sample size %
Top management	5	2	40%
Sectional heads	20	8	40%
Post graduate students	925	110	11.89%
Total	950	120	12.60%

3.5 Data Collection Methods

Primary data was collected through questionnaires. Data was collected with the help of research assistants. Two postgraduate students were engaged in data collection for a fee. In all, 110 copies of the questionnaire were randomly administered to postgraduate students registered during the fall semester of the academic year 2016. The period was purposely chosen because it was a time when students use the library more for their mid-term paper writing and other assignments. All the 10 Librarians were supplied with the questionnaires. The study also sought for secondary data from documented reports, newsletters and books.

3.5.1 Questionnaire

The primary data was collected by use of a self-administered structured questionnaire. Maholtra (2007) describes questionnaires as crucial tools for collection data within a short span of time. Student questionnaires were administered to those who visited the library and with the help of a research assistant where they were asked to fill the questionnaire either assisted by the research assistant or on their own and hand back the filled questionnaire.

3.5.2 Document Review

Documentary review was used to explore past and present documented experiences in the collection and management of library resources in university libraries in Kenya. This review enabled the study to investigate the factors that have influenced the collection development in university libraries in Kenya in terms of funding, management and usage. For this study, both

primary and secondary sources were used. This included annual reports, newsletters, and previous researches.

3.6 Research Instruments

Research instruments ensure that data collected is reasonably valid. For this study a pilot study was conducted to counter check errors on the questionnaires to assure for validity and reliability

3.6.1 Pilot Study

A pilot study was conducted on a similar population as the actual targeted population. This was conducted at the medical library that is situated at Kenyatta National Hospital. The purpose for the pilot study was to ensure that the reliability of data collection instruments. The population of the pilot study consisted of librarians and students of the library. 1 staff member and 5 students were purposively selected for the pilot study. The questionnaires were then tested for validity and suitability.

3.6.2. Validity

Validity refers to the ability of the questionnaire to represents the reality of what is being measured (Saunders et al,2009). This means that the questions set out in the questionnaire, provide an adequate coverage of the research questions. To ensure validity the instrument is achieved prior discussion with experiences researcher arranged, followed by colleagues who assessed the usefulness of each question in the questionnaire.

3.6.3. Reliability

Reliability denotes the extent to which the data collection techniques yields consistent findings (Smith et al. 2008). If the results of a study can be reproduced with similar methodology, then the research instrument is considered reliable. To reduce the prospects of participant error, questionnaires were administered early in the morning in the entire period of data collection.

Saunders et al, (2009) points out that questionnaires completed at different times of the week may generate different results.

3.7 Data Analysis and Presentation

Quantitative data was collected on collection development trends, user population size, collection size and expenditure, institutional funds, human resources and training. Data was analysed, summarised and presented in form of tables using totals and percentages. Qualitative data relating to users' experiences as well as information relating to practices and procedures and opinions by librarians was compared and summarised by use of charts and graphs. It is out of these discussions that conclusions were reached and recommendations made.

3.8 Ethical Consideration

The researcher obtained authorization from the department of Library and Information Science at the University of Nairobi in order to conduct this study: Annex IV-Letter for Data collection. Before data collection was carried out the researcher informed the respondents about the objectives of the study and the cardinal principle of secrecy and confidentiality in this study.

3.9 Chapter Summary

This chapter addressed the methodological analysis, detailing the approaches and procedures used in this research. It extended from the research design, the study area, the target population, the sampling technique, the sample size, data collection methods, data collection instruments, data analysis, pilot study, validity, reliability, and ethical issues concerning the research.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter outlines the data presentation, analysis, results and discussions of findings. The study used questionnaires administered to library staff and postgraduate students. The analysed results are presented in form of charts and tables. Quantitative data were analysed using Microsoft Excel while qualitative was labelled and examined through statistical Package for Social Sciences.

4.1 Response Rate of Participants

The response rate for this study was 72. % representing 86 respondents out of the 120 targeted as illustrated in Table 4.1 below. In the study, 2% (n=2) of the respondents were top management, 10% (n=8) were sectional heads and 88% (n=76) were post graduate students. This indicates that the primary respondents were adequately covered so key data was provided.

Table 4.1: Response Rate

Respondents	Frequency	Percentage %
Top management	2	2%
Sectional heads	8	10%
Post graduate students	76	88%
Total	86	100

4.2.1 Work Experience

In the respect to work experience by the librarians; the study established the following as shown in figure 4.2 below. Majority (70%) of the respondents had 6 years and above, followed by 20% 3-5 years, while the rest 10% had 0-2 years as indicated in figure 4.1 Pg. 35.

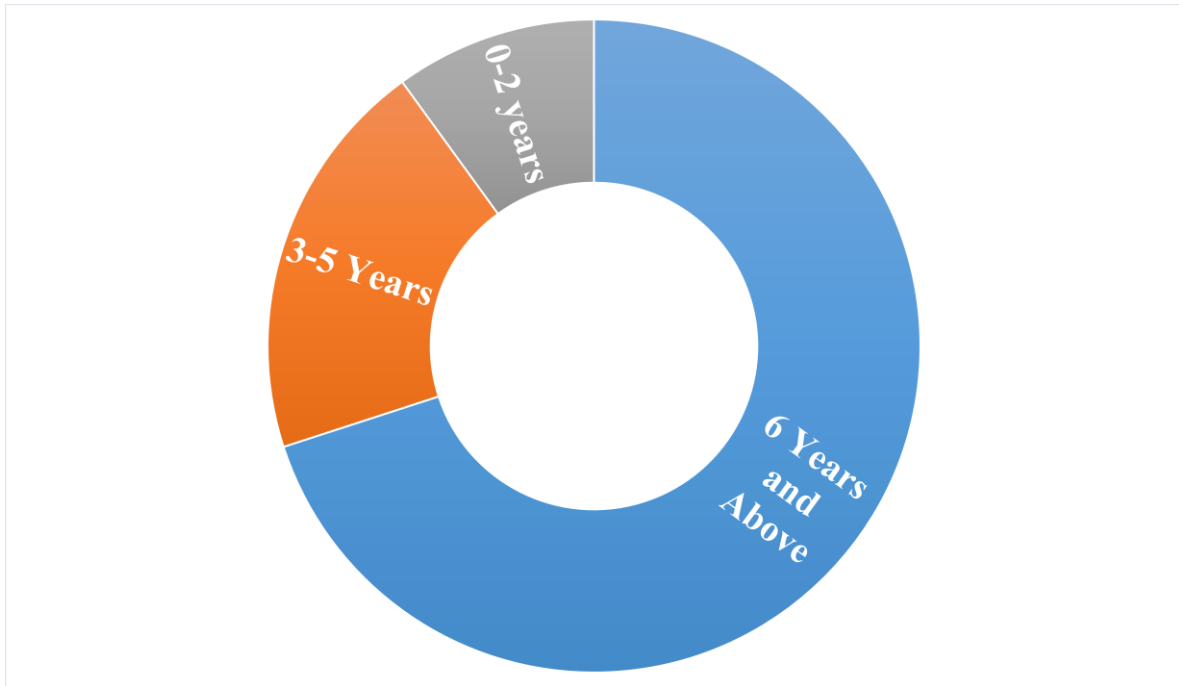


Figure 4.1: Work Experience

4.2.2 Position Held

Figure 4.3 below shows the position held by information professions at respondents in USIU-A Library. From the figure, majority of respondents come from acquisition, cataloguing and reference sections representing a cumulative of 70%. The library administration was represented 20% finally bindery had 10% as indicated in Figure 4.2 below.

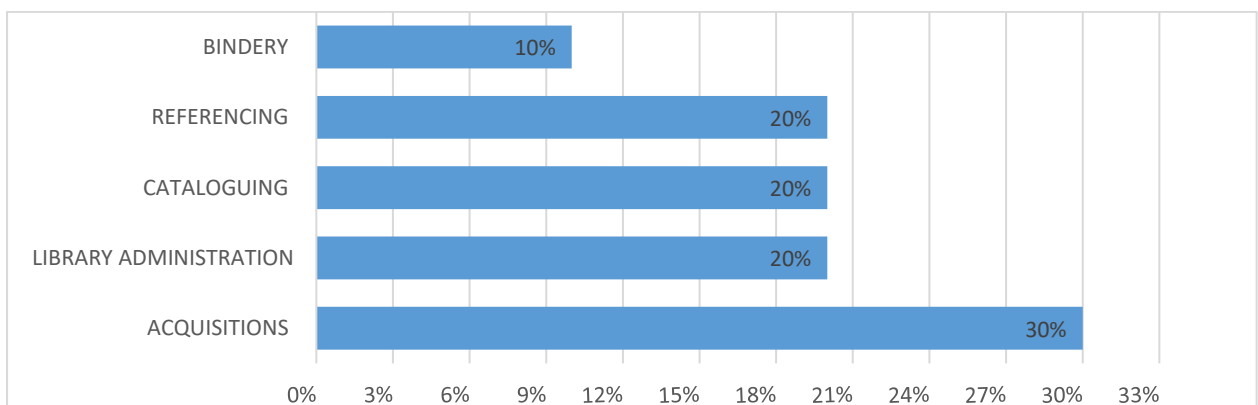


Figure 4.2: Position Held

4.2.2 Types of Electronic resources in the Library

The information sought here was on the types of electronic resources acquired in the library. The respondents were asked to acknowledge whether the following electronic information resources was available in the library: online catalogue; electronic books; electronic journals; online databases; ask a librarian; internet and digital repository. Table 4.2 below shows the responses from the respondents. From the table, all the respondents acknowledged that all resources are available in the library accounting for 100% responses. This shows that Graduate students are frequent users of library electronic resources, and they understand that the resources are important to their studies. This affirms to Connaway, (2009) views that majority of university students are computer literate and are accustomed to electronic media and many of them crave electronic resources.

Table 4.2: Types of Electronic Resources available in the Library

Item	Frequency	Percentage%
Online catalogue	86	100
Electronic books	86	100
Electronic journals	86	100
Online databases	86	100
Ask a Librarian	86	100
Internet	86	100
Digital repository	86	100
Total	86	100

4.3 Application of Electronic Collection Development Practices in an Academic Library

The study sought to find out the factors influencing the application of electronic collection development practices in an academic library. Respondents were asked to indicate the level of agreement or disagreement to various statements. The responses gave different results indication that some electronic resources are frequently used while others were not used frequently; Wema, & Manda, (2011) point out that a determining factor for electronic resources selection is relevance and user awareness. This contributes to a high frequency of use.

4.3.1 Use of Online Catalogue

Regarding use the online catalogue majority respondents indicated that they use online catalogues on a weekly basis accounting for 46.5%, daily accounted for 22.1%, monthly 10.5% and never accounted for 20.9% as shown in Table 4.2 below. The online catalogue is the key to finding resources held in the library. For this study majority of users (46.5%) use online catalogue on a weekly basis. This confirms to Ahmed, (2011) view that users are not aware of the functions the catalogue and for those who know how to use it do not consult it frequently hence the need for the library to do more training on the importance of online catalogue.

Table 4.3: Frequency of Use of Online Catalogue

Statement	Frequency	Percentage%
Daily	19	22.1
Weekly	40	46.5
Montly	9	10.5
Yearly	0	0
Never	18	20.9
Total	86	100

4.3.2 Frequency of Use of Electronic Books

On how frequently the respondents used electronic book, 45.3% of the respondents used them monthly, another 45.3% weekly whereas only 8.1% used them daily as illustrated in Table 4.4 below. This corresponds to Jeong, (2014) findings that 45% exploit e-books once or twice in a month while less than 20% consult e-books on a daily basis.

Table 4.4: Frequency of Use of Electronic Books

Statement	Frequency	Percentage%
Daily	7	8.1
Weekly	39	45.3
Montly	39	45.3
Yearly	0	0
Never	1	1.3
Total	86	100

4.3.3 Frequency of Usage of Electronic Journals

The information sought here was on the frequency of the usage of the electronic journal. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how frequently the respondents used electronic journals, majority of the respondents used them monthly accounting for 73.3% of the respondents, 17.4% weekly whereas only 8.1% used the daily as shown in Table 4.5 below. This finding supplement Katalwa, (2016) study that 69% of postgraduate students use electronic journals weekly and so electronic journals are highly in supporting print resources.

Table 4.5: Frequency of Usage of Electronic Journals

Statement	Frequency	Percentage%
Daily	7	8.1
Weekly	15	17.4
Montly	63	73.3
Yearly	0	0
Never	1	1.3
Total	86	100

4.3.4 Frequency of Usage of Online Database

The information sought here was on the frequency of the usage of the online database. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how frequently the respondents used online database, majority of the respondents used them weekly accounting for 53.5% of the respondents followed by 27.9% who used them monthly whereas only 17.4% used them daily as shown in Table 4.6 pg.36. This finding correspond to a study by Oyieke & Dick (2010) where it was found that between 27-30% of students at the university of East Africa Baraton and Kenyatta university used online database on a monthly basis.

Table 4.6: Frequency of Usage of Online Database

Statement	Frequency	Percentage%
Daily	15	17.4
Weekly	46	53.5
Montly	24	27.9
Yearly	0	0
Never	1	1.3
Total	86	100

4.3.5 Frequency of Usage of Library pocket Guide

The information sought here was on the frequency of the usage of Library Pocket Guide. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how frequently the respondents used ask a librarian platform, 45.3% of the respondents used it monthly followed by 53.5 % who used them weekly whereas only 17.4% used it daily as shown in Table 4.7 below.

Table 4.7: Frequency of Usage of Library pocket Guide

Statement	Frequency	Percent%
Daily	15	17.4
Weekly	46	53.5
Monthly	39	45.3
Yearly	0	0
Never	1	1.3
Total	86	100

4.3.6 Frequency of Usage of Internet

The information sought here was on the frequency of the usage of internet. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how frequently the respondents used internet, 61.6% of the respondents used it daily followed by 18.6% who used them weekly and another 18.6% used it monthly as shown in Table 4.8 pg. 37. This study findings confirms Idoko, (2016) suggestions that the internet is an emerging issue and that there is an increase in the use of library services majorly because of the provision

of internet services. However, the frequency of internet use in the library has had an effect on physical resources resulting in the need to have more space.

Table 4.8: Frequency of using the Internet

Statement	Frequency	Percent %
Daily	53	61.6
Weekly	16	18.6
Monthly	16	18.6
Yearly	0	0
Never	1	1.3
Total	86	100

4.3.7 Frequency of Usage of Institutional Repository

The information sought here was on the frequency of the usage of institutional repository. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how frequently the respondents used institutional repository, 19 (33.7.) % of the respondents used it monthly followed by 25(29.1 %) who used them weekly whereas majority 31(36%) used it daily as shown in Table 4.9 below. These findings could be an indicator that institutional repositories are a growing concept in academic libraries and students are embracing as a source of knowledge.

Table 4.9: Frequency of Usage of Institutional Repository

Statement	Frequency	Percent%
Daily	31	36
Weekly	25	29.1
Monthly	29	33.7
Yearly	0	0
Never	1	1.3
Total	86	100

4.4 Factors influencing the application of Electronic Resources in Collection Development

In this section, the information sought was on the factors influencing the application of electronic collection development practices in an academic library. Respondents were asked to indicate their level of agreement or disagreement to various statements.

4.4.1 User-Friendly

The information sought here was on how user-friendly the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how user-friendly the electronic resources acquired and used in an academic library was, majority of respondents accounting for 61.6% remained neutral, 27.9% agreed and 9.3% disagreed as shown in Table 4.10 below.

Table 4.10: User-Friendly

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	8	9.3
Neutral	53	61.6
Agree	24	27.9
Strongly Agree	1	1.2
Total	86	100

4.4.2 Easy Navigation

The information sought here was on how easily it was to navigate the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how easy navigation the electronic resources acquired and used in an academic library was, majority of respondents accounting for 70.9% remained neutral, 18.6% strongly agreed and 9.3% agreed as shown in Table 4.11 below. According to the study findings ease of navigation had a minor effect of the effective use of electronic resources as over 70% of the respondents were neutral in their

responses. This could be attributed to other factors such as those noted by Barhoumi, (2016), where ease of use and navigation is tied to years of experience.

Table 4.11: Easy Navigation

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	61	70.9
Agree	8	9.3
Strongly Agree	16	18.6
Total	86	100

4.4.3 Fast Access to Information Upload and Download

The information sought here was on fast access to information upload and download of the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On fast access to information upload and download of the electronic resources acquired and used in an academic library was, 38(44.2%) strongly agreed, 31(36%) agreed and 16(18.6%) remained neutral as shown in Table 4.12 below

Table 4.12: Fast Access to Information Upload and Download

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	16	18.6
Agree	31	36
Strongly Agree	38	44.2
Total	86	100

4.4.4 Multiple Language Options

The information sought here was on whether there were multiple language options for the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On whether there were multiple language options for the electronic resources acquired and used in an academic

library,40(46.5%)agreed, 30(34.9%) disagreed and 15(17.4%) strongly agreed as shown in Table 4.13 below.

Table 4.13: Multiple Language Options

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	30	34.9
Neutral	0	0
Agree	40	46.5
Strongly Agree	15	17.4
Total	86	100

4.4.5 Options to Save, Share and Edit Information

The information sought here was on whether there was an option to save, share and edit information for the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On whether was an option to save, share and edit information for the electronic resources acquired and used in an academic library, 38(34.2%) agreed and 47(54.7%) strongly agreed while 46(53.5%) disagreed as shown in Table 4.14.

Table 4.14: Options to Save, Share and Edit Information

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	46	53.5
Neutral	0	0
Agree	38	34.2
Strongly Agree	47	54.7
Total	86	100

4.4.6 Currency of Information

The information sought here was on currency of information of the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On whether the information of the electronic resources acquired and used in an academic library was current, majority of

respondents accounting for 54.7% strongly agreed and 44.2% agreed as shown in Table 4.15 pg. 41. The fundamental reason for embracing electronic resources to those of printed text is the currency of information available in electronic resources. This finding strengthen Katabalwa, (2016) views that electronic resources provide up-to-date resources and so many postgraduate students frequently use this resources.

Table 4.15: Currency of Information

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	0	0
Agree	38	34.2
Strongly Agree	47	54.7
Total	86	100

4.4.7 Unlimited and Multiple Access

The information sought here was on unlimited and multiple access of the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On whether the information of the electronic resources acquired and used in an academic library was unlimited and multiple access, 45.3% strongly agreed, 34.9% agreed and 18.6% remained neutral as shown in Table 4.16 below. The fundamental reason for embracing electronic resources to those of printed text is the currency of information available in electronic resources. According to Katabalwa, (2016) the importance of electronic resources is their currency of information and that they can be accessed at any given time and location within and without the vicinity of the university.

Table 4.16: Unlimited and Multiple Access

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	16	18.6
Agree	30	34.9
Strongly Agree	39	45.3
Total	86	100

4.5 Users' Perceptions towards Electronic Resources

The study also sought to find out users' perceptions towards electronic resources. Respondents were asked to indicate their level of agreement or disagreement to various statements.

4.5.1 Rating Online Catalogue

The information sought here was on how respondents rate the online catalogue majority of the respondents 52.3% felt it was important, 26.7% felt it was essential, 9.3% felt it was average importance, 1.2% felt it was little importance and finally 9.3% felt it was of no importance as shown in Table 4.17 below. This indicates that a majority of library users value the online catalogue since it is the gateway to the library's holdings. The corresponds to Thanuskodi, (2012) study findings that users consults OPAC to check on the availability of resources in the library.

Table 4.17: Rating Online Catalogue

Statement	Frequency	Percent%
Essential	23	26.7
Very important	45	52.3
Average importance	8	9.3
Little Importance	1	1.2
No Importance	8	9.3
Total	86	100

4.5.2 Rating of Electronic Books

The information sought here was on electronic books of the electronic resources acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the electronic books acquired and used in an academic library, 36% felt it was important, 25.6% felt it was essential, 18.6% felt it was average importance, 9.3% felt it was little importance and another 9.3% felt it was of no importance as shown in Table 4.18 pg. 43. This is an indication of the important role of electronic books amongst researchers in academic institutions even though the uptake is still low this is a pointer on the need for libraries to do more in educating students to make

them utilize electronic books. This finding corresponds with Jeong, (2014) discovery that there has been a perception change on the use of e-books however the low uptake of e-books has led to underutilization of available resources and hence libraries need to do a lot of sensitization to bridge this gap.

Table 4.18: Rating of Electronic Books

Statement	Frequency	Percent%
Essential	22	25.6
Very important	31	36
Average importance	16	18.6
Little Importance	8	9.3
No Importance	8	9.3
Total	86	100

4.5.3 Rating of Electronic Journals

The information sought here was on electronic journals acquired and used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the electronic journals acquired and used in an academic library, 33.7% felt it was very important, 26.7% felt it was essential, 19.8% felt it was of average importance, 9.3% felt it was little importance and another 9.3% felt it was of no importance as shown in Table 4.19 pg. 44. This study findings indicated that electronic journals are an important source of information that support collection development. The study findings validate a study done by Ahiauzu, (2008) in which libraries in Nigerian Universities felt that electronic journals provide a cost-effective means to collect, access and distribute in comparison to print text.

Table 4.19: Rating of Electronic Journals

Statement	Frequency	Percent%
Essential	23	26.7
Very important	29	33.7
Average importance	17	19.8
Little Importance	8	9.3
No Importance	8	9.3
Total	86	100

4.5.4 Rating of Online Databases

The information sought here was on online database used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the online database acquired and used in an academic library, 53.5% felt it was important, 25.6% felt it was essential, 1.2% felt it was average importance and 18.9% felt it was little importance as shown in Table 4.20pg 45. There were two significant results for this particular question. On one hand over 80% of the respondents indicated a positive response while 19% indicated a negative respond that of little importance. This could be an indicator to show that majority of the respondents are well aware of online database and rate it highly while on the other hand some users rated online databases probably because they have had difficulties in access them at a particular point in time. Online databases are developing as a new concept in academic libraries to supplement collection development so libraries have to do more to educate users about online databases. This finding underpin the study conducted by Ahiauzu, (2008) which points out databases as the new trend for electronic collection development.

Table 4.20: Rating of Online Databases

Statement	Frequency	Percent%
Essential	22	25.6
Very important	46	53.5
Average Importance	1	1.2
Little Importance	16	18.6
No importance	1	1.2
Total	86	100

4.5.5 Rating of Library Pocket Guide

The information sought here was on library pocket guide used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the library pocket guide used in an academic library, 43% felt it was important, 18.6% felt it was essential, another 18.6% felt it was average importance, 9.3% felt it was little importance and another 9.3% felt it was of no importance as shown in Table 4.21 below.

Table 4.21: Rating of Library Pocket Guide

Statement	Frequency	Percent%
Essential	16	18.6
Very important	37	43
Average importance	16	18.6
Little Importance	8	9.3
No Importance	8	9.3
Total	86	100

4.5.6 Rating of Digital Repository

The information sought here was on digital repository used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the digital repository used in an academic library, 52.3% felt it was important, 8.1% felt it was essential, 10.5% felt it was average importance, 9.3% felt it was little importance and 18.6% felt it was of no importance as shown in Table 4.22 pg. 46.

Table 4.22: Rating of Digital Repository

Statement	Frequency	Percent%
Essential	7	8.1
Very important	45	52.3
Average Importance	9	10.5
Little Importance	8	9.3
No Importance	16	18.6
Total	86	100

4.5.7 Rating of Ask a Librarian

The information sought here was on ask a librarian used in an academic library was. Respondents were asked to tick to various statements as per their level of agreement or disagreement. On how the respondents' rate the digital repository used in an academic library, 33.7% felt it was important, 17.4% felt it was essential, 29.1% felt it was average importance, and 18.6 % felt it was little importance as shown in Table 4.23 below.

Table 4.23: Rating of Ask a Librarian

Statement	Frequency	Percent%
Essential	15	17.4
Very important	29	33.7
Average importance	25	29.1
Little importance	16	18.6
No importance	39	45.3
Total	86	100

4.6 Strategies Applied by the Library in Acquisition of Electronic Resources

In this section, the information sought was on the strategies applied by the library in acquisition of electronic resources. Respondents were asked to indicate their level of agreement or disagreement to various statements.

4.6.1 Increase the Number of Internet Access Points

The information sought here was on whether the increasing the number of internet access points will lead to high adoption and usage of electronic resources. Respondents were asked to tick to

various statements as per their level of agreement or disagreement. From table 4.24 below. 47. majority of respondents accounting for 52(61.2%) strongly agreed that an increase in the number of internet access will lead to high usage of electronic resources, 28.2% agreed and 9.4% strongly disagreed.

Table 4.24: Increase the Number of Internet Access Points

Statement	Frequency	Percent%
Strongly Disagree	8	9.3
Disagree	0	0
Neutral	0	0
Agree	24	28.2
Strongly Agree	52	61.2
Total	84	100

4.6.2 Provide for Remote Access

The information sought here was on whether providing remote access will lead to high adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.25 below, majority of respondents accounting for 52.9% agreed that providing remote access will lead to high usage of electronic resources, 9.3% strongly agreed and 36.5% remained neutral.

Table 4.25: Provide for Remote Access

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	31	36.5
Agree	45	52.9
Strongly Agree	8	9.3
Total	85	100

4.6.3 Subscribe to More Databases

The information sought here was on whether subscribing to more databases will lead to high adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.26 pg. 48, about 46%

strongly agreed that subscribing to more databases will lead to high usage of electronic resources, 43.5% agreed and 9.4% disagreed.

Table 4.26: Subscribe to More Databases

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	8	9.3
Neutral	0	0
Agree	37	43.5
Strongly Agree	39	45.9
Missing value	1	1.3
Total	85	100

4.6.4 More Training on Use of Electronic Resources

The information sought here was on whether more training on use of electronic resources will lead to high adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.27 below, majority of respondents accounting for 56.5% agreed that more training on use of electronic resources will lead to high usage of electronic resources and 42.4% strongly agreed.

Table 4.27: More Training on Use of Electronic Resources

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	0	0
Agree	48	56.5
Strongly Agree	36	42.4
Missing value	1	1.2
Total	85	100

4.6.5 Increase Library Operating Hours

The information sought here was on whether increasing library operating hours will lead to high adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.28 pg. 49, majority of respondents accounting for 51.8% strongly agreed that increasing library operating hours will

lead to high usage of electronic resources, 28.8% agreed and 18.8% remained neutral. In this study the library operates for 80Hours cumulatively in a week. This finding affirms to Kavulya, (2006) assertion that library operating hours is an important factor in an academic library service provision.

Table 4.28: Increase Library Operating Hours

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	16	18.8
Agree	24	28.2
Strongly Agree	44	51.8
Missing value	1	1.2
Total	85	100

4.6.6 Holding Library Open Days

The information sought here was on whether holding library open days will lead to high adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.29 below, majority of respondents accounting for 55.3% strongly agreed that holding library open days will lead to high usage of electronic resources, 35.3% agreed and 8.2% remained neutral.

Table 4.29: Holding Library Open Days

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	7	8.2
Agree	30	35.3
Strongly Agree	47	55.3
Missing value	1	1.2
Total	85	100

4.7 Factors Hindering the Acquisition and Usage of Electronic Resources

In this section, the information sought was on barriers hindering the acquisition and usage of electronic resources in an academic library. Respondents were asked to indicate their level of agreement or disagreement to various statements

4.7.1 Inadequate Information Technology Tools and Access Terminals

The information sought here was on whether inadequate information communication technology tools and access terminals was hindering the adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.30 pg. 50 majority of respondents accounting for 54.1% strongly agreed that inadequate information communication technology tools and access terminals was hindering the adoption and usage of electronic resources, 27.1% agreed and 17.6% remained neutral. This finding confirm to Wema, & Manda, (2011) remarks that accessibility is central to effective use of electronic resources.

Table 4.30: Inadequate Information Technology Tools and Access Terminals

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	15	17.6
Agree	23	27.1
Strongly Agree	46	54.1
Missing Value	1	1.2
Total	85	100

4.7.2 Inadequate Training

The information sought here was on whether inadequate training was hindering the adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.31 below, about 45% strongly agreed that inadequate training was hindering the adoption and usage of electronic resources, 36.5% agreed and 17.6% remained neutral. This finding confirms to Islam (2010), study that noted a need for high quality user education as a solution to the problems encountered by students in using the electronic information resources available in the library.

Table 4.31: Inadequate Training

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	0	0
Neutral	15	17.6
Agree	31	36.5
Strongly Agree	38	44.7
Missing value	1	1.2
Total	85	100

4.7.3 Poor Internet Connectivity and Low Bandwidth

The information sought here was on whether poor internet connectivity and low bandwidth was hindering the adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.32 below, about 45% strongly agreed that poor internet connectivity and low bandwidth was hindering the adoption and usage of electronic resources, 44.7% agreed and 9.4% remained neutral. This finding correspond to Katabalwa (2016), study where 67% of the respondents indicated that power outages and insufficient ICT infrastructure were affecting the use of electronic journals. Wema, & Manda, (2011) also observed that low bandwidth makes it difficult for users to access electronic resources and recommends increasing of internet connectivity and bandwidth in academic institutions.

Table 4.32: Poor Internet Connectivity and Low Bandwidth

Statement	Frequency	Percent %
Strongly Disagree	0	0
Disagree	0	0
Neutral	8	9.4
Agree	38	44.7
Strongly Agree	38	44.7
Missing value	1	1.2
Total	85	100

4.7.4 Password Restrictions

The information sought here was on whether too password restrictions was hindering the adoption and usage of electronic resources. Respondents were asked to tick to various

statements as per their level of agreement or disagreement. From table 4.33 below 52, majority of respondents accounting for 52.9% strongly agreed that too many password restrictions that was hindering the adoption and usage of electronic resources, 18.8% agreed, 17.6% remained neutral and 9.4% disagreed. This conforms to Wema and Manda, (2011) observation that password based access are sometimes challenging to users as the passwords are often changed from time to time and this is not communicated and availed to users bearing in mind that access is allowed via institutional IP addresses.

Table 4.33:Password Restrictions

Statement	Frequency	Percent %
Strongly Disagree	0	0
Disagree	8	9.4
Neutral	15	17.6
Agree	16	18.8
Strongly Agree	45	52.9
Missing value	1	1.2
Total	85	100

4.7.5 Preference to Use Printed Text

The information sought here was on whether preference to use printed text was hindering the adoption and usage of electronic resources. Respondents were asked to tick to various statements as per their level of agreement or disagreement. From table 4.34 pg. 53 only 16.5% strongly agreed that preference to use printed text was hindering the adoption and usage of electronic resources, 27.1% agreed, 17.6% remained neutral and 28.2 % disagreed. This finding indicate amongst library users there are those that have preference to printed text. Usability of electronic resources impacts on users' information seeking behaviour because electronic resources rely on facilities available whereas printed materials in less dependent on technology (Chandel & Saika 2012).

Table 4.34: Preference to use printed Text

Statement	Frequency	Percent%
Strongly Disagree	0	0
Disagree	24	28.2
Neutral	15	17.6
Agree	23	27.1
Strongly Agree	14	16.5
Missing value	9	10.6
Total	85	100

4.8 Impediments to Effective Electronic Collection Development

In this section, further information sought was majorly from the main respondents on the impediments to effective electronic collection development. Respondents were asked to indicate their level of agreement or disagreement to various statements as indicated in Table 4.35 below.

Table 4.35: Impediments to Effective Electronic Collection Development

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Growth of student population	3(30%)	5(50%)	2(20%)	0	0
Low level of awareness	7(70%)	3(30%)	0	0	0
Inadequate funding	2(20%)	7(70%)	1(10%)	0	0
Unreliable power supply	2(20%)	3(30%)	4(40%)	1(10%)	0
High cost of electronic resources	7(70%)	2(20%)	1(10%)	0	0
Inadequate human resources with required skills and competencies	3(30%)	5(50%)	1(10%)	1(10%)	0
Lack of adequate bandwidth	6(60%)	4(40%)	0	0	0

Majority of the respondents (50%) agreed that the growth of student population was and impediment to the effective collection of electronic resources. This could be as a result of the ever-changing needs of students and emergency of new courses. 70% of the respondents indicated that low level of awareness among the user community was an impediment to effective use of electronic resources. Low level of awareness is a big contributing in the use of electronic resources. This conforms with Were, (2010) study report in the case study of

university of Nairobi where awareness levels were reported as low. The study also found out that inadequate funding was an impeding factor to effective electronic resources collection development. 7(70%) of the respondents agreed with this statement. This finding confirms to Ghalib (2016), affirmation that although, universities do allocate budget for their libraries, most of the budgets allocated is channelled to different packages with only a small and inadequate amount assigned for collection development acquisition and selection of materials. The study also sought to find out if internet connectivity and bandwidth impeded the use of electronic resources. (6) 60% of respondents strongly agreed with the statement, (4) 40% agreed, 0 % were neutral. These results indicate that the majority agreed that internet is a problem. This shows that a common problem as noted in the literature review, that internet connectivity is a problem in many institutions in developing countries.

4.9 Chapter Summary

In this chapter, the results and findings on the study on electronic resources and its application in collection development practices in academic libraries: the case of United States International University was presented. The results and findings were presented as per the research questions. Tables and figures were used in the presentation of the results and findings. In the next chapter, the summary of the findings, conclusions and recommendations will be covered.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the summary and discussions of the study findings including conclusion and recommendations. The study further makes recommendations regarding electronic resources and its application in collection development practices in academic libraries. Suggested areas for further study are also portrayed in this chapter. The purpose of this study was to examine electronic resources and its application in collection development and management practices in academic libraries using the case of the United States International University-Africa.

Objectives of the study included to:

- Examine the potential application of electronic collection development practices in the selected academic library.
- Establish the type of electronic resources acquired at the selected an academic library.
- Find out the levels of user satisfaction towards electronic resources in the academic library.
- Find out the appropriate strategies for acquiring electronic information resources in the academic library

5.2 Summary of the Findings

The study's findings are summarized as follows:

5.2.2 Types of electronic resources acquired at the selected an academic library

One of the study objectives was to find out the types of electronic resources acquired in the library; In this section, the information sought was on type of electronic resources acquired and used in an academic library and principally all the respondents indicated that the library collects a wide range of electronic information sources to support collection development and as such were considered an important resource as analysed in Table 4.2 pg. 33. Regarding the application of electronic collection development practices in an academic library the study

established that various variables under this objective were significant to the study. This shows that students are frequent users of library electronic resources, and they understand that the resources are important to their studies. Similar views were presented by Connaway (2009); Muya, (2014) that majority of university students are computer literate and are accustomed to electronic media and many of them crave for electronic resources and that convenience, time saving and system friendliness are affecting user information seeking behaviors and that selection of resources is very critical since libraries are not the first port of call for users.

5.2.3 Levels of User Satisfaction Towards Electronic Resources

The other objective was to find out levels of user satisfaction towards electronic resources at the United States international university. The study analyses this from three perspective; one was on frequency of use, two was on users rating of electronic resources and the third was on user's perception towards resources. The findings as indicated on Table 4.9 pg. 37, shows that majority of users make use of digital repository 31(36%) on a daily basis while 39(45.3%) use electronic books and 15(17.4%) use journals on a weekly basis. A corresponding study done by Katabalwa, (2016) found that that 69% of postgraduate students use electronic journals weekly and so electronic journals are highly in supporting print resources. This shows that at postgraduate level students carry out more research in their studies because student projects are carried out during this time of semester. The analysis on Table 4.3 pg. 34 also found out that 18(20.9%) of the respondents never use the online catalogue. This conforms to Ahmed, (2011) view that users are not aware of the functions the catalogue and for those who know how to use it do not consult it frequently hence the need for the library to do more training on the importance of online catalogue. The level of user satisfaction was also analysed using the rating of electronic resources by users and so respondents were asked to indicate their level of agreement or disagreement to various statements as presented on Table 4.6 pg. 36. 46(53.5%) of the respondents indicated that online databases as very important; Table 4.19 pg. 44,

29(33.7%) indicated that same for electronic journals. This could be an indicator to show that majority of the respondents are well aware of online database and rate it highly while on the other hand some users rated online databases probably because they have had difficulties in access them at a particular point in time. At the same time, as is indicated on Table 4.23 Pg. 46, 39(45.3%) of the respondents felt that ask a librarian was of no importance. Currency of information as analysed in Table 4.15 Pg.41 indicates that 38(34.2%) agreed, 47(54.7%) strongly agreed to the fact that electronic information resources in the library are current. The fundamental reason for embracing electronic resources to those of printed text is the currency of information available in electronic resources. The importance of electronic resources is their currency of information and that they can be accessed at any given time and location within and without the vicinity of the university Katabalwa, (2016)

5.2.4 Appropriate Strategies for Acquiring Electronic Information Resources

The other important element that formed the basis of this study was to find out on the appropriate strategies used in acquisition of electronic resources. Respondents were asked to indicate their level of agreement or disagreement to various statements. Majority of respondents as indicated in Table 4.24 pg. 47 strongly agreed 52(61.2%) that an increase in the number of internet access will lead to high usage of electronic resources as well as the majority 45(52.9%) agreed that providing remote access will also lead to high usage of electronic resources. It was also established that training 48(56.5%) on use of electronic resources was a good strategy that could change the use of electronic resources. The study also established that increasing library operating hours and holding library open days was another avenue that library should employ to enhance resources utilization. A similar study conducted by Kavulya, (2006) suggested that library operating hours is an important factor in an academic library service provision.

5.2.5 Impediments to Effective Electronic Collection Development

Another significant question that the research wanted to find out was the potential impediments to effective collection of electronic resources. Majority of the respondents as analysed in Table 4.35 pg53, 5(50%) agreed that the growth of student population was and impediment to the effective collection of electronic resources. This could be as a result of the ever-changing needs of students and emergency of new courses. Table 4.35 pg. 53 shows that 7(70%) of the respondents indicated that low level of awareness among the user community was an impediment to effective use of electronic resources. Low level of awareness is a big contributing in the use of electronic resources. This conforms with Were, (2010) study report in the case study of university of Nairobi where awareness levels were reported as low. The study also found out that inadequate funding was an impeding factor to effective electronic resources collection development. 7(70%) of the respondents agreed with this statement. This finding confirms to Ghalib (2016), affirmation that although, universities do allocate budget for their libraries, most of the budgets allocated is channelled to different packages with only a small and inadequate amount assigned for collection development acquisition and selection of materials. Internet connectivity and bandwidth impeded the use of electronic resources (6) 60% of respondents strongly agreed with the statement. his shows that a common problem as noted in the literature review, that internet connectivity is a problem in many institutions in developing countries.

5.3 Conclusion

Based on the findings and discussions presented in the preceding sections, this study makes the following conclusion:

- The study concludes that electronic resources is widely used in the library and that Students, and researchers at the United States International University- Africa have access to a wide range of high-quality electronic resources.

- The study concludes that electronic resources is widely used in the library and so the library should carry out intensive training for and providing of key relevant information is key to the widely usage of the electronic resources.
- Electronic resources acquired and used in the library were user-friendly, easy to navigate, fast access to information upload and download and had options to save, share and edit information for the electronic resources. The study conclude that more adoption and usage of electronic resources needs to be encouraged.
- Increasing the number of internet access will lead to high usage of electronic resources as well as providing remote access will also lead to high usage of electronic resources.
- Inadequate information communication technology tools and access terminals was hindering the adoption and usage of electronic resources as well as too many password restrictions. The study concludes that some unnecessary passwords and restriction in not relevant in access of the electronic resources.
- User access to computers is improving, Internet connectivity and bandwidth is better and hence the library should market and promote its service and products through the library website.

5.4 Recommendations

From the study's findings on the electronic resources application in collection development the following recommendations are made:

5.4.1 Policy Recommendations

Formulation of comprehensive collection development policies will help the library in the selection and acquisition decisions in order to achieve a balanced collection between electronic and print resources.

5.4.2 Marketing and Promotion of available resources

The Library should strive to promote and market of electronic resources in the Library in order to increase the level of awareness amongst users. This could be achieved through Information Literacy training, communication skills classes especially to students who join the institution at first year. Continuous training of users and library staff is key to the widely acceptance and usage of the electronic resources. The study recommends that more training and dispatching of relevant information be carried out.

5.4.3 Finance and budget

Alternative source of finance should be obtained to enrich the available technological infrastructure. This will enable the library to be at par with changing nature of technology hence aid in bringing more students to the library.

5.5 Suggestions for Further Research

Electronic resources are relevant and aid in solving the numerous challenges users and librarians face in trying to accessing recent relevant information within a short time. In spite of the numerous benefits linked to collection of electronic resources there hasn't been enough done to maximize on the electronic resources. Underutilization of available resources remains a big challenge for the library in spite of the huge investments done to acquire these resources. The following area is suggested for further study.

5.5.1 Role of consortia in collection development among academic institution in Kenya

Academic libraries are embracing the consortia model of acquiring resources in response to subscription costs associated with electronic journals and other external demands. The study therefore suggests that further research is done on the role of consortia in collection development among academic institutions in Kenya.

5.5.2 Electronic Resources and Collection Development Practices in Public Libraries

Few studies have been done on electronic resources and its application in collection development practices libraries. This study acknowledges that case study is on a private university and the findings might not be a true reflection of the public universities. It's through this limitation that the study recommends that a similar study should be carried out on a public university. The study therefore recommends that further research should be carried out on factors determining the adoption and acceptance of electronic resources.

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APPENDIX I:

INTRODUCTION LETTER

James. K. Sisimwo
P.O. Box 43844-00200,
Nairobi, Kenya.
Email: jameskibet@gmail.com

Dear Respondent,

RE: INTRODUCTION LETTER TO ALL RESPONDENTS

I am a student at the University of Nairobi pursuing a master in library and information science. I am currently undertaking a research project on Electronic resources and its application in collection development in academic libraries the case of United States international university-Africa.

The objectives of the study are to:

- i. Examine the potential application of electronic collection development practices in the selected academic library.
- ii. Establish the type of electronic resources acquired at the selected an academic library.
- iii. Find out the levels of user satisfaction towards electronic resources in the academic library.
- iv. Find out the appropriate strategies for acquiring electronic information resources in the academic library.

The purpose of this questionnaire is to collect data that will be used for academic purpose only. I am requesting for your assistance in conducting this research by answering all the questions in this questionnaire. The information you give shall be treated as confidential. Your assistance will be highly appreciated

Yours Sincerely,
James Sisimwo
Registration Number: C54/60466/2013

APPENDIX II

LETTER FOR DATA COLLECTION



UNIVERSITY OF NAIROBI

FACULTY OF ARTS

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Telephone: +254 20 318262, Ext. 28095
Telegram: Varsity
Fax: +254 20 2245566

P.O. Box 30197- 00100 GPO
Nairobi, Kenya.
dlj@uonbi.ac.ke

Our Ref: UON/CHSS/DLIS/303

Date 30/08/2016

Address

Dear Sir/Madam,

RE: JAMES KIBET _____ REG NO. C54/60466/2013

The above named is a bonafide student at the University of Nairobi undertaking a Master of Library and Information Science (MLIS). He is currently in the process of collecting data as part of the requirements for the course.

His topic is **"Impact of collection electronic resources on development on in academic libraries in Kenya with reference to United States International University of Africa"**

Any assistance accorded to him will highly be appreciated.

Regards,

A handwritten signature in blue ink, appearing to read 'Dorothy Njiraine'.

Dr. Dorothy Njiraine
Ag. Chairperson
Department of Library & Information Science (DLIS)

APPENDIX III

QUESTIONNAIRE FOR INFORMATION PROFESSIONALS

INSTRUCTIONS

Please respond by ticking (✓) against your preferred response for questions with options. For questions that require suggestions or comments, please use the provided space.

1. Professional role:
 - a) Acquisition
 - b) Cataloguing
 - c) Referencing
 - d) Collection development
 - e) Bindery
 - f) Any Other(s) (please specify)
2. Working experience:
 - a) 0-2 years
 - b) 3-5 years
 - c) 6 years and above
3. To what extent do you agree or disagree with the following statement. Use the following scale of Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1.

NO	STATEMENT	5	4	3	2	1
STATUS OF ELECTRONIC RESOURCES						
1.	The library is well equipped to support electronic resources.					
2.	The library subscribes to electronic resources					
3.	The library has adequate finances to support electronic resource					
4.	The library has adequate human resources to support electronic resource					
5.	The Library has a collection development policy for electronic resources					
STRATEGIES FOR FACILITATING COLLECTION DEVELOPMENT OF ELECTRONIC COLLECTION						
1.	Provision of adequate ICT facilities in the library					
2.	Subscribing to more electronic journals					
3.	Formulate comprehensive collection development policy					
4.	Marketing of existing electronic resources					
5.	Digitization of research publication					
6.	Formulating institutional repositories.					
STRATEGIES FOR ENHANCING ELECTRONIC RESOURCES USE						
1.	Increase computers and internet access points in the library					
2.	Automating library Processes-Acquisition, Referencing					

3.	Providing remote access to collection					
4.	Collaboration and consortium purchasing					
5.	Evaluation of electronic resources and facilities usage.					
6.	Training of librarians and users on use electronic resources					
7.	Promote digitization and institutional repository use.					
8.	Provide specific budgets for electronic resources					
9.	Providing more space for users in the library					
IMPEDIMENTS TO EFFECTIVE ELECTRONIC COLLECTION DEVELOPMENT						
1.	Growth of student population					
2.	Low level of awareness					
3.	Inadequate funding					
4.	Unreliable power supply					
6.	Lack of adequate bandwidth and internet connectivity					
7.	Poor access materials for acquisition					
8.	Lack of proper commitment by the Library management					
9.	Lack of adequate human resources with required skills and competencies					
10	High cost of acquiring and maintaining electronic resources					

4. Indicate from the list below the possible Influence of electronic resources on library use. Select the one that applies to you: **5=Strongly Agree, 4=Agree, 3= Neutral, 2= Disagree, 1=Strongly Disagree.**

NO.	INFLUENCE OF ELECTRONIC RESOURCES ON LIBRARY USE	5	4	3	2	1
1.	Increase in library visitors/Patrons					
2.	Decrease in library visitors/Patrons					
3.	Decreasing use of print journals					
4.	Increasing use of electronic resources					

5. Suggest the best approach regarding the collection of electronic information resources in the Library
-
-

Thank you very much

APPENDIX IV

QUESTIONNAIRE FOR STUDENTS

INSTRUCTIONS

Please respond by ticking (√) against your preferred response for questions with options. For questions that require suggestions or comments, please use the provided space.

Background Information

1. Highest Educational Level.....

ELECTRONIC INFORMATION RESOURCES AND COLLECTION DEVELOPMENT

2. Select the information resource available in the Library

- a) Online catalogue
- b) Electronic books
- c) Electronic journals
- d) Online databases
- e) Ask a Librarian
- f) Internet
- g) Digital repository

3. How frequently do you use the following electronic resources information using the following scale: 5=Daily, 4=Weekly 3= Monthly 2=Yearly, 1= Never?

NO	Frequency of use	5	4	3	2	1
1	Online catalogue					
2	Electronic Books					
3	Electronic Journals					
4	Online Databases					
5	Ask a Librarian					
6	Internet					
7	Institutional repository					

4. How would you rate the following types of electronic information sources using the following scale: 5=Not Important, 4=Little importance 3= Average importance 2=Very important, 1= essential?

NO.	Types of electronic Information Resources	5	4	3	2	1
1.	Online catalogue					
2.	Electronic Books					
3.	Electronic Journals					
4.	Online Databases					
5.	Library pocket guide					
6.	Digital repository					
7	Ask a Librarian					

5. Indicate from the list below the purpose of using the library electronic resources using the following scale: 5=Strongly Agree, 4=Agree, 3= Neutral, 2= Disagree, Strongly Disagree.

NO.	PURPOSE OF USING ELECTORNIC RESOURCES	5	4	3	2	1
1	User-Friendly					
2	Easy Navigation					
3	Fast access to information upload and download					
4	Multiple Language Options					
5	Options to Save, Share and edit information					
6	Currency of information					
7	Unlimited and Multiple access					

6. Indicate the extent to which the following approaches can improve the level of awareness and use of electronic resources in the library using the scale: 5=Strongly Agree, 4=Agree, 3= Neutral, 2= Disagree, 1=Strongly Disagree.

NO.	STRATEGIES AND AREAS OF IMPROVEMENT	5	4	3	2	1
1.	Increase the number of Internet access points					
2.	Provide for remote access					
3.	Subscribe to more databases					
4.	More training to be done on use of E-resources					
5.	Increase library operating hours					
6.	Marketing of available resources					
7.	Holding library open Days					
8.	Information and communication skills classes					

7. Indicate from the list below factors you consider as a reason for not using of electronic resources? Select the one that applies to you: 5=Strongly Agree, 4=Agree, 3= Neutral, 2= Disagree, 1=Strongly Disagree.

NO.	Reasons for not using electronic resources	5	4	3	2	1
1.	Inadequate Information communication technology tools and access terminals					
2.	Inadequate training					
3.	Lack of knowledge and skills on how to use electronic resource					
4.	Poor Internet connectivity and bandwidth					
5.	Lack of relevant information					
6	The library hours are inconvenient for me					
7	Too many password restrictions					
8	Inability to access electronic resources from home					
9	I prefer to use printed Text					

8. Suggest possible solutions to the identified challenges.
-

Thank you very much