

**CONTRIBUTION OF CONSORTIUM OF TANZANIA UNIVERSITIES AND
RESEARCH LIBRARIES IN ACADEMIC RESOURCES DEVELOPMENT:
THE CASE OF SELECTED ACADEMIC LIBRARIES IN DODOMA,
TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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CERTIFICATION

The undersigned certify that he has read and hereby recommends for the acceptance by the Open University of Tanzania a dissertation titled, “*contribution of Tanzania Universities and Research Libraries in Academic resources development: the case of selected academic libraries in Dodoma, Tanzania*” in partial fulfilment of the requirements of the degree of Master of Library and Information Management (MLIM) of the Open University of Tanzania.

.....

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Date

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DECLARATION

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.....

Signature

.....

Date

DEDICATION

This research work is dedicated first to the Almighty God for his enabling strength he bestowed on me in completing this work. Furthermore, dedication goes to my lovely children Angel, Cecilia and Thomas for supporting me in one way or the other towards completion of my study.

ACKNOWLEDGEMENT

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May GOD bless you all in JESUS NAME, AMEN.

ABSTRACT

The study assessed the contribution of Tanzania Universities and Research Libraries in Academic Resources Development. The general objective of the study was to assess contribution of Consortium of Tanzania Universities and Research Libraries (COTUL) to academic library resources development with reference to selected Universities in Dodoma Region, Tanzania. The study specifically identified role played by COTUL to academic libraries, analysed ways in which COTUL works/cooperate with academic institutions, assessed views on relevancy and benefits of COTUL'S products and services in meeting users' needs and identified challenges that have been encountered in utilization of e-resources provided by COTUL. The study employed a case study design. The study area was Dodoma Region in Tanzania and the population under this study included library directors, library staff, academic researchers and post graduate students. The researcher selected the sample of two hundred from the whole population. Questionnaires and interviews were applied to collect data. Primary and secondary data were collected and analysed using SPSS and descriptive statistics such as frequency distributions and percentages in examining and analysing collected data. The study employed 145 respondents from CBE, UDOM, IRDP and IFM. The study revealed that, COTUL plays a big role in the development of e-resources to academic Universities and research libraries. The researcher recommended enhancement of ICT programs so as to make sure that students have adequate knowledge in accessing e-resources materials and training of library users concerning subscribed databases.

Keywords: *Universities and Research Libraries, Academic Resources Development, COTUL, Resource Sharing*

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ABBREVIATIONS AND ACRONYMS

CALICO	Cape Libraries Cooperatives
CALIS	China Academic Library & Information System
CARL	Colorado's Alliance of Research Libraries
CBE	College of Business Education
COTUL	Consortium for Tanzanian University and Research Libraries
COVID-19	Corona Virus Disease
EIFL	Electronic Information for Libraries
FAQs	Frequency Asked Questions
GALILEO	Georgia Library Learning Online
ICOLC	International Coalition of Library Consortia
ICT	Information Communication Technology
IFLA	International Federation of Library Associations and Institution
IFM	Institute of Finance Management
IMF	International Monetary Fund
INASP	International Networks for the Availability of Scientific Publications
IRDP	Institute of Rural Development Program
JSTOR	Journal Storage
MUHAS	Muhimbili University of Health and Allied Sciences
PERI	Programme for the Enhancement of Research Information
PPP	Pay check Protection Program
SABINET	South African Bibliographic and Information Network
SPSS	Statistical Package for Social Sciences
TARLA	Tanzania academic and research libraries

UDOM	University of Dodoma
Wi-Fi	Wireless Fidelity
WWW	World Wide Web

CHAPTER ONE

BACK GROUND TO THE STUDY

1.1 Introduction

This chapter introduces the study and covers background of the study, statement of the problem, research objectives, research questions, rationale, organization, scope and limitation of the study.

1.2 Context of the Study

Consortium is a Latin word for fellowship which mean coming together of separate groups for a purpose (Pal & Das, 2007). Homogenously it is used as alliance, coalition, collaboration, cooperation, partnership and the like. By definition a consortium is said to be a cooperative arrangement among groups or institutions or an association or society (Scepanski, 1998).

Website of an international consortium, Electronic Information for Libraries (EIFL) explains that, Consortia provide library users through their member libraries with cost-effective, essential electronic collections and services (EIFL Consortium Management, 2012). As a proven model in countries around the globe, consortia enable libraries to provide services that they could not provide on their own, and to share expertise and best practice amongst its members. Consortium is beneficial as there is reduction in the cost of e-resources, ability to negotiate favourable terms and conditions of use, expansion of services and resources, sharing of staff skills and expertise to strengthen library leadership, increased effectiveness of advocacy for policy change, cost effective and customer driven service

As pointed out by Maria Balenbin Fresnido & Marmol Yap (2014), a library consortium fulfils certain needs that may be difficult to achieve when undertaken individually. Similarly, it brings about issues and challenges that libraries seldom experience as an independent entity. Online resources are normally accessed unlike print resources which are housed in a controlled environment. The aforementioned characteristic associated with electronic information resources entails development of ways and means of evaluating and monitoring their use while at the same time ensuring their overall accessibility to the library users.

The emergence of the internet, particularly the World Wide Web (WWW), as a new medium of information storage and delivery in the 21st century has made the concept more come into sight than earlier (Hirshon, 1999). In the age of information explosion, the most challenging tasks for the information professionals and information centres all over the world is to supervise the huge information that are being produced and developed in the world. It is impossible for a single library to monitor all the explosion of knowledge fields and accumulate for the users. To cope up with this situation, the phenomenon of consortia has become very important (Hirshon, 1999).

It is well known that; a library is an establishment at the crossroads in this age of information explosion age. Namoorthy and Urlsiddappa (1999), argue that, publishers are publishing electronically more than ever before courtesy of the associative cost benefits presented to them by the new technology. Equally, academic libraries are expected to keep pace with ever changing technological world if they are

to continue being relevant to their users and at the same time remaining focused in fulfilling their mission and vision to which they have been established

Historically, the use of academic libraries especially by undergraduates has been driven by convenience. In the days before online catalogues and searchable databases, much less before the advent of full-text digital collections, students used books and journals that came easily to hand in the college/university library. Researching an undergraduate term paper began, and frequently ended, in the reference room of the library. Little use was made of inter-library loan, because of time constraints. While the typical undergraduate paper lacked depth, it was based on sources that had been selected consciously to meet the institution's educational mission (Dorst, 2016)

Potter (1970), added that academic libraries have long formed consortia for the purpose of sharing existing physical resources principally books and journals held by member libraries. This is done in recognition of the fact that a group of libraries has a combined set of resources that is greater than the resources of any single member.

Biswas.et.all (2004), argues that academic libraries all over the world are established to support their parent institutions in actualizing their objectives of teaching, learning and research in different formats. No library, not even the largest and most comprehensive can fulfil all its users' information needs.

Yao and Zhu (2015), analyse that an academic library is an important hub of information exchange, gathering different kinds of information and academic resources. They do so by providing a variety of information resources to the users due to the fact that a well-stocked library system is vital to student's academic achievement. In order for the academic libraries to meet the growing needs of quality education, concerted efforts should be made towards the provision of the right information to the right library users by acquiring library information resources by various forms of library resource sharing (Mubofu, 2019).

According to Chadwell and Delpha (2011), academic library consortia in the United States have been in existence for decades, having gained momentum in the 1970s. The development of shared catalogues and later shared purchases of electronic resources in the 1990s has increased the need for libraries to come together in consortia. Colorado's Alliance of Research Libraries (CARL) and Georgia Library Learning Online (GALILEO) are good examples in the United States.

In Africa, the most vibrant and successful development of library consortia has occurred in South Africa. These are South African Bibliographic and Information Network (SABINET) and Cape Libraries Cooperatives (CALICO) (Alemna, 2002).

In Tanzania, the formation of the Consortium of Tanzania university and research libraries was triggered by a need to build capacity to enhance an effective and efficient information provision by acquiring research resources from various sources and other medias deemed critical in the attainment of academic excellence in learning, teaching and research. The **Consortium of Tanzania University and Research Libraries (COTUL)** is a formal association of academic and research

institutions for the purpose of engaging in joint information provision activities particularly, Acquisition of electronic information sources, Research, Training, Consultancy and others deemed critical in the attainment of academic excellence in learning, teaching and research in academic institutions. Its objectives are developing research collections, excellence in meeting information needs across all disciplines and supporting dissemination and access to local knowledge collections. However, due to global economic trends, individual libraries fall short in meeting all information needs of clients. To address the shortage, COTUL members agree to jointly pull their resource together and acquire research materials to satisfy the research community in the country (COTUL, 2019).

1.3 Statement of the Problem

Most of the Tanzania University and research libraries subscribe to the Consortium of Tanzania University Libraries and Research Institutes and all the study done by different researchers on COTUL does not mention its contribution to the development of their library resources. According to Msuya & Mungwabi (2016), in 2013 COTUL has 56 registered member libraries. To date, there are 76 active members of COTUL (COTUL, 2023).

According to Marilyn (2004), it is revealed that the academic library consortia play the crucial role in the development of academic libraries, particularly in the promotion of professional development and resource sharing. In order to achieve the goals of the perfect resource sharing, prompt document delivery systems, integrating collection and development process, access to the variety of reliable and enormous

sources of electronic information, the best and foremost solution for the academic libraries is library consortia. A study by Mubofu & Chaula (2020), mark the benefits of resource sharing in academic libraries as increased subscription power of individual libraries, minimizes demand for storage spaces, helps to keep up with publication pace and brings materials not in stock at a lower cost.

However, various studies discuss much on the roles, importance and benefits of resource sharing in academic libraries. The contributions of COTUL to academic libraries development in Tanzania have not been fully analysed. The studies of Msuya & Mugwabi (2016), Kiondo (2003), Mubofu and Chaula (2020) provide information on other areas concerning library resource sharing in the country and not about COTUL contributions. Therefore, due to this, a researcher was interested to find out the contributions done by COTUL to the development and growth of resources to its members as far as it is a resource sharing in Tanzania.

1.4 Objectives of the study

1.4.1 General objectives

The general objective of the study was to assess contribution of Consortium of Tanzania Universities and Research Libraries (COTUL) in academic resources development with reference to selected Universities in Dodoma Region, Tanzania.

1.4.2 Specific objectives

The following were the specific objectives

- i. To identify the role of COTUL to academic libraries' resource development;

- ii. To analyse way in which COTUL works/cooperate with academic institutions;
- iii. To find out views on relevancy and benefits of COTUL'S products and services in meeting users' needs; and
- iv. To identify challenges that COTUL have been encountered in enhancing resource development.

1.5 Research questions

The study was guided by the following research questions

- i. What are role of COTUL to academic libraries' resource development?
- ii. How COTUL does works/cooperate with academic institutions?
- iii. What are the users' views about the relevancy and benefits accrued so far by being supported by COTUL? and
- iv. What are the challenges that COTUL have been encountered in enhancing resource development?

1.6 Rationale of the study

The study addressed the contribution of consortium of Tanzania Universities and Research Libraries development as most of the academic libraries in Tanzania are members of COTUL. The total number of active members is 76. The objective of COTUL is to develop and improve cooperation and understanding among member libraries towards the creation and promotion of virtual libraries, to enhance the provision of learning resources and access to information, to subscribe to electronic resources for consortium members, to encourage and support the professional

development of libraries and to forge cooperation with international library consortia and other relevant organizations and institutions. The study explained how far these objectives have fulfilled among member libraries and how so far have grown. The study also leads to the additional of literatures and new knowledge to the issues regarding Consortium in general.

Also, the findings of this study created awareness and COTUL takes considerations of the outcome of the findings to take measures on the contributions observed. Therefore, the consortium of Tanzania University and Research institutes acquires and meets its planned objectives. It is obvious that the findings gave direction on the best practices in information sharing environment and acted as a knowledge base for decision making to all universities in Tanzania in formulating marketing and training programs and to libraries intending to come together in a consortium. The study formed a base to ensure library services are improved and offered a framework for monitoring and evaluation of acquired e-resources and their usage in libraries and information centres.

1.7 Organisation of the Study

The study comprised into various chapters with chapter one focusing on its background, objectives, significance, scope and limitations. The second chapter focused on the literature review. The third section discusses the research methodology. Chapter four presented the study findings, analysis and relevant discussions while section five concentrated on the summary of findings, conclusions and recommendations.

1.8 Delimitations and Limitation of the study

COTUL has a total of 150 members and 76 members are active. It was difficult to conduct a study and cover all institution members due to constraints such as finance, location and time. The study was therefore conducted at Dodoma Region specifically to academic institutions. Because of limited available literatures on library consortia especially literatures concerning COTUL, the study was limited to inadequate literatures on library consortia building, cooperation and resource sharing in Tanzania. The information collected during field work enhanced a researcher to get information which was unable to be found in literatures. Limited and inadequate literature is due to consortium building in libraries has not been fully embraced in Africa in general and specifically in Tanzania.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the concepts on topics related to the need of library cooperation in academic libraries, objectives of library cooperation and the establishment of library consortia globally and Tanzania in particular. It entails evaluation of pertinent information in line with study objectives of addressing the contributions of COTUL to academic library development, the ways and means in which library consortiums works and cooperate with academic libraries, factors that in one way or another hinder the consortia and what measures are taken to let COTUL yield the planned objectives in flourishing the academic library institutions. The chapter also presents theories, and then a summary of research theoretical framework and research gap was identified.

2.2 Definition of Key Terms

D). Library Consortium: A library consortium is an alliance of libraries, typically academic or research-oriented, that come together to leverage their collective strength and provide enhanced services to their respective institutions and patrons (Fang, 2013). Kumar, 2014, indicated that these consortia serve as powerful networks, enabling libraries to access a broader range of resources, reduce costs, and promote cooperation in areas such as collection development, digitization efforts, and innovative technology solutions. Through their collaborative efforts, library consortia contribute significantly to the advancement of knowledge and facilitate

greater access to information, ultimately benefiting scholars, students, and the wider community.

Some of the features of a library consortium include, reduction in the costs of acquisition of information materials by individual libraries in a consortium and the provision of a greater number of information materials that ordinarily one library may not own to users, ensuring resource sharing and co-operative licensing of publishers' portfolios and Provision of uninterrupted access to electronic information materials which otherwise might not have been available if libraries were to negotiate separately (Ghosh,2011)

II). Library Cooperation: According to APT partnership (1995), library cooperation is defined as the creation and operation of equitable, that is mutually 'fair', collaborative arrangements between libraries and information providers which enhance the common good though making information available to all potential users that is without obstacle to access by reason of cost which is more extensive or more valuable to the user and or is of lower cost to the collaborating providers. Cooperation occurs at many levels from simple interlibrary loan services and to more direct resource sharing. The main objective of library cooperation is to maximize the availability of materials and services and to minimized expenses. The availability of a variety of electronic tools for documents identification and ever-expanding availability of electronic data, network access to online catalogues and electronic documents has enhanced the awareness of library users about literature produced in their areas of interest (Majid, S, Eisenschitz, T S & Anwar, M A 1999). (Tella *et al*, 2020)

III). Resource Sharing: The activities that result from an agreement, formal or informal, among a group of libraries (usually a consortium or network) to share collections, data, facilities, personnel, etc., for the benefit of their users and to reduce the expense of collection development (Muthu, 2013).

IV). Library: Chun (2009) expressed the meaning of library in four pillars as follows;

- Curation, by which I mean the selection, preservation, maintenance, collection and archiving of, and provision of access to, materials pertaining to the cultural record—for libraries, predominantly books and manuscripts, but often images and audio items also.
- Engagement with research and learning.
- Publishing, ranging from the most modest reproduction and dissemination of materials to full-blown editorial processes with peer review.
- Creating and managing spaces devoted to users and collections

V). Academic Library: According to Becher's (1989) organizational theory, academic libraries are an organization set within a larger organization – namely, within the academic institution and its various departments. As such, the attitudes of faculty members toward the academic library are influenced by various factors that are associated with the larger organization, including the size of the academic institution, its reputation, and, importantly, the organizational subculture of its faculty members (Becher, 1989). The latter is manifested both inside the faculties – i.e., in the behaviour of faculty members and in the connections that they maintain—and between faculties, i.e., in the relationships between faculty members of different fields Development.

V). Research Library: Wilms (2021), define a research library as a library that contains an in-depth collection of material on one or several subjects. A research library will generally include an in-depth selection of materials on a particular topic or set of topics and contain primary sources as well as secondary sources. Research libraries are established to meet research needs and, as such, are stocked with authentic materials with quality content. Wilms (2021) continues to explain Research libraries that are typically attached to academic or research institutions that specialize in that topic and serve members of that institution. Large university libraries are considered research libraries, and often contain many specialized branch research libraries. The libraries provide research materials for students and staff of these organizations to use and can also publish and carry literature produced by these institutions and make them available to others. Research libraries could also be accessible to members of the public who wish to gain in-depth knowledge on that particular topic.

2.3 Library Cooperation and Consortium

Ossai (2010), state that, globally the development of new technologies with a concomitant exponential increase in the amount of information available has made the building and expansion of library consortia an imperative. Since information now can be readily digitized and delivered electronically, this rapidly is becoming the preferred means of information retrieval. Given this trend, in order for libraries to meet expectations they must develop new strategies to obtain and use shared digital resources and services.

According to Feather (2015), the International Coalition of Library Consortia (ICOLC) is an informal group comprising approximately 200 library consortia from around the world. It is an informal group of library consortia globally that exists for strategic planning and for discussion of issues of interest to members. It has been in existence from 1996 and serves all kinds of Libraries world over. The benefits which comes from being members of the ICOLC are greater ability to advocate for library needs, encouraging resource sharing (content, technology, expertise, and funding), Creating opportunities for joint advocacy, marketing, and fundraising for libraries, and Undertaking special initiatives for the group, such as digitization, technology implementation, information sharing, or creation of a union catalogue together with improving expertise through professional development programs for library staff Consortia (COC).

In Africa the most vigorous and successful development of library consortia has occurred in South Africa and neighbouring states. While there were some cooperative library initiatives prior to 1990, it was during the period from 1992 to 1999 that saw the most significant advances, although some consortia may have been more conceptual and less operational (Ossai, 2010)

2.4 Library Consortium in Tanzania

COTUL was formed in 2002, at the time when Kenya and Uganda were also establishing their consortia (Msuya & Mungwabi, 2016). The original idea was that each country (Kenya, Uganda and Tanzania) would build its own consortium, and when they become fully fledged, they would unite to form a bigger and more

powerful consortium of East African universities and research libraries. This means resource sharing would be at regional level, implying a more vibrant and cost-effective consortium. By comparison, Kenya and Uganda have made significant progress. For example, these countries started subscribing to e-resources much earlier, using their own resources, unlike the Tanzanian consortium which has lagged behind and largely depends on donor grants (Msuya & Mungwabi, 2016)

Although the East African countries are characterized by the same socio-economic and political conditions, the gap between Tanzania and its counterparts in terms of consortium development is huge. In Uganda, EIFL has supported national and institutional open access awareness raising and advocacy workshops that have resulted in the launch of open access publishing platforms and the creation of a number of open access repositories in the country. The Consortium of Uganda University Libraries (CUUL) is a combination of university libraries, college and polytechnic libraries, research libraries and special libraries. Its total, member is only 48 (EIFL, 2011).

In Kenya, EIFL has supported national and institutional open access awareness raising and advocacy workshops that have resulted in the launch of open access publishing platforms and the creation of a number of open access repositories in the country. Types of members include University libraries, college and polytechnic libraries, public libraries, national libraries and special libraries. Total members are 141 (EIFL, 2008).

COTUL is a voluntary, non-profit making association formed in Tanzania, that brings together university and research libraries for the purpose of sharing electronic resources. The idea of establishing the consortium started in 2002 and COTUL started realizing its objectives in 2009 (Msuya & Mungwabi, 2016). EIFL has supported national and institutional open access awareness raising and advocacy workshops that have resulted in the launch of open access publishing platforms and the creation of a number of open access repositories in the country. University libraries, college and polytechnic libraries, research libraries and special libraries COTUL active members are 65 (EIFL, 2009).

2.4.1 COTUL and INASP

According to Belcher (2012) International Networks for the Availability of Scientific Publications (INASP) aims at people accessing and giving their contribution in terms of information and knowledge for development in all sector of economy globally. INASP works to improve access, production and use of research information and knowledge so that countries are equipped to solve their development challenges. INASP initially worked to strengthen library consortia in developing countries through the Programme for the Enhancement of Research Information (PERI, 2001–2013) (INASP, 2015).

Tanzania, as one of the INASP partner countries (INASP,2013), has been exploiting this opportunity as well as subscribing to a number of journal databases available under the PER ii programme, making them available to researchers, students, faculty members and others to access and use.

Manda (2005) in Katabalwa & Underwood explains that the INASP's PERI project initiative in 2001 was the first attempt to introduce the use of full-text electronic journals to support research and academic activities in Tanzania. The University of Dar es Salaam is one of the institutions that has benefited from this initiative and its library has continued to serve as a co-coordinating centre in Tanzania. Utilization of PER ii electronic information resources in Tanzania have been maximized through the Consortium of Tanzania Universities and Research Libraries (COTUL). COTUL has facilitated the acquisition and availability of these resources on behalf of 41 universities and research institutions (EIFL, 2013)

2.4.2 Electronic Information for Libraries (EIFL)

EIFL (Electronic Information for Libraries) is an international not-for-profit organization that works with libraries in developing and transition countries to enable access to knowledge for education, learning, research and sustainable community development. Tanzania benefits EIFL through the Consortium of Tanzania University and Research Libraries (COTUL). MUHAS as of the academic institution, since its faculty members at MUHAS have a number of professional ranks including tutorial assistant, assistant lecturer, lecturer, senior lecturer, associate professor, and professor. These members of academic staff are working in academic unit or departments or school such as School of Medicine, School of Nursing, School of Pharmacy, School of Public Health and Social Sciences, School of Dentistry, and Institute of Allied Health Sciences. Further, MUHAS library subscribes to e-resources via COTUL. Generally, faculty members in the country have access to

over 34 subscribed scholarly databases. In addition, faculty members have access to 12 scholarly databases that are made available to COTUL members by Electronic Information for Libraries (EIFL) (Lwoga & Sukums, 2018)

2.4.3 International Federation of Library Associations and Institutions (IFLA)

Resource sharing is one of the challenges for effective library operation. Resource have always been a constraint to development in many African countries Tanzania being among them. If libraries from Europe and United States of America who have many resources do cooperate and share resources, there is a great need for university libraries from developed countries to collaborate especially Tanzania which has severe constraints in resources. Tanzania academic and research libraries (TARLA) has started and the Consortium of Tanzania University Libraries is nearby to start (Msuya & Mungwabi, 2016)

2.5 The Need for Collaboration

The benefits of collaboration, consortia, networks and peer support have been emphasized in information science literature for a long time. Most of the success stories reported by African University Librarians revolve around collaboration and networking within institutions to lobby policy makers, within the country to form consortia and share the subscription of e-resources, build capacity and get professional support. The actual and potential of networking, cooperation and digitization is to modify the functions of acquiring, storing and disseminating information and knowledge, hence the need to be supported (Musoke & Kinengyere, 2008). Because of limited resources there is, therefore, need to build on the

achievements, share experiences and best practices through collaboration and networks.

2.6 Resource Sharing

The concept of resource sharing has been used in the developed countries as a means to alleviate the resource inadequacies of individual libraries. In Africa, it has been seized upon as a way of sustaining information services. Rosenberg (2001) recommended that resource sharing programme have a significant role to play in developing countries, given the problem of scarce resources and if libraries are to continue to meet the demands of other users, increased cooperation and resource sharing are vital. Consortia can bring economy, efficiency and equality in information availability and use. Participant institutions in a consortium have access not only to their own resources but sources in the other institutions as well. This can allow the gap between information resource rich libraries and those, which are resource deficient to be bridged (Pandian *et al.*, 2002).

2.7 Role of Library Consortium in Resource Sharing

Verma & Lalthanmawii (2016), it is obvious that consortia are basically serving as buying clubs than consortia in the real sense. But with little initiatives these can be developed into platforms for sharing valuable resources available in different libraries of the country, both in print and non-print media. Not only so, these consortia can also take up several other activities for the mutual benefit of the participating libraries. It is not possible for one libraries or information centres to hold the full stock of information resources or to procure all information, which may

be in demand by its clientele. Even not a single library or information centres can meet the thrust of knowledge of all the readers from its holdings. To solve this problem, library cooperation started long ago, such as Inter-library loan, document delivery, library networks and the like. At present the more accepted system of resource sharing is library consortia. Consortia approach is one of the many ways of maintaining cooperation and coordination among the libraries and in fact it has emerged as the 'state of the art' in library cooperation in recent years. Consortia link libraries into an effective network of cooperative entities that benefit the users. Every library is liable to send their respective holdings to other libraries under a resource sharing program. The main purpose is to improve the ability of libraries to serve their users through interlibrary cooperation. Consortia are ambitious network of both electronic and non-electronic resources and services.

2.8 Role of COTUL in Tanzania

The formation of the Consortium of Tanzania university and research libraries was triggered by a need to build capacity to enhance an effective and efficient information provision by acquiring research resources from various sources and others media deemed critical in the attainment of academic excellence in learning, teaching and research in Tanzania (EIFL, 2009)

EIFL has made COTUL to meet these roles it since their joint in 2009. It supports the development of COTUL, and through this partnership, libraries in Tanzania are providing access to a wide range of scholarly e-resources. In Tanzania, EIFL has supported national and institutional open access awareness raising and advocacy

workshops that have resulted in the launch of open access publishing platforms and the creation of a number of open access repositories in the country. EIFL also engaged with public libraries in Tanzania resulting in innovative pilot projects that are helping libraries meet the information needs of their communities (EIFL, 2009)

2.9. Theoretical Framework

According to Kombo and Tromp (2006), a theoretical framework is a collection of interrelated ideas based on theories which accounts for or explains phenomena. A theory is an interrelated set of constructs or ideas constructed to explain, predict or make clear a phenomenon by way of relationship, behaviour or events. It follows then that theoretical framework is the structure that can support or hold a theory of a study or research. The study used this theory since it is an explicit statement of theoretical assumptions that permits the reader to evaluate them critically (Nature, 2018). Again, it connects the researcher to existing knowledge. The study used the Consortium Model

2.9.1 Consortium Model

The Consortium model was developed by Tim Jiping Zou and Elaine Xiaofen Dong in the year 2007. This model was a directive to the government of China in forming the consortia to academic libraries, public library consortia, Special library consortia and multi-type consortia. As described by Zou & Dong (2007) the model was mandated to achieve the following objectives;

- i. Creating a virtual catalogue that includes the total holdings of the consortium

- ii. Establishing a state wide borrowing and delivery network as a cost-effective alternative to ILL service
- iii. Beginning group purchasing of e-databases, e-journals, and e-books
- iv. Offering training and workshop in new practices and technology.

China Academic Library & Information System (CALIS) as a management centre, CALIS was established in 1998 when it began to plan, design and implement a nationwide academic library system. CALIS aims at promoting and improving resource sharing among academic libraries, optimizing the methods of assembling, accessing, and delivering resources and information through the national platform. It also aims at helping participating libraries achieve cost-effectiveness, as well as offering the information and research support to advance the high education in China and colleges in China.

COTUL acts as the coordinating body of all the member libraries in the consortium. In addition, COTUL foundation objectives are in tandem with CALIS model objectives. This theory will be relevant to this study in that, acquisition and selection of Information resources is facilitated by a central organization committee, also Promotion and training on access and utilization of information resources to members are conducted centrally thereby ensuring uniformity of training in usage of products and services provided to cooperating libraries. Therefore, Consortium model is a model containing all possible quantitative and qualitative variables related to the research objectives and therefore it was sufficient for the study (Kombo and Tromp (2006)

2.10. Conceptual Framework

According to Kumar (2011), a concept is a word or phrase that symbolizes several related ideas that are used as a vocabulary for understanding the research problem. He further says that a conceptual framework is a set of ideas and principles that represents specific direction by which the research would have to be undertaken. In other words, it describes the relationship between variables identified in the study and forms the basis of the research. A conceptual framework was applied in this study as it was a roadmap of this study, it helped to visualise the research project and put it into action. It defines the relevant variables and mapped out how they related each other

By considering the research topic that is contribution of consortium of Tanzania Universities and Research libraries in academic resources development, the independent variables are COTUL contribution and acquired knowledge together with performance while dependent variables are academic resources development and its availability that leads to increased number of libraries joining the consortium. This means that COTUL enhances libraries to access e- resources, it is expected that, since resources are available users would acquire knowledge which would lead to high performance development. This then influenced more libraries to join the consortium.

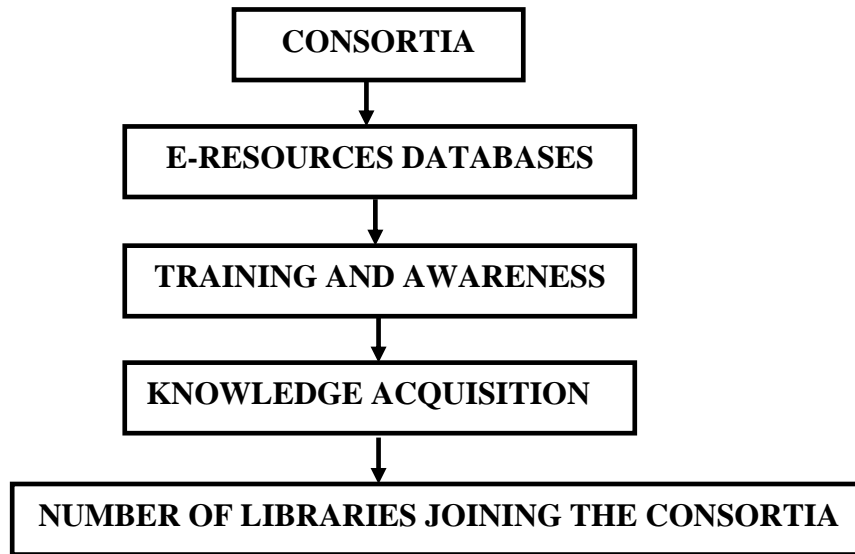


Figure 2. 1: Conceptual framework

Source: Researcher, 2023

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methods that were used in the collection and analysis of data to answer the primary and secondary research questions of the study. It explained the research design, sampling techniques and data collection methods that were used and described how data were collected from the research. Both qualitative and quantitative research methods were applied in carrying out this research. However, the overall approach was qualitative because qualitative methods focus on the experiences of people involved, and attempt to understand the reasons behind certain behaviour description. The evaluation was carried out using three systems of data collection techniques, literature review, interviews and questionnaires. The literature review and interviews were used to collect qualitative data while questionnaires were used to collect both qualitative and quantitative data thus the two complemented each other.

3.2 Research design

According to Kumar (2011), research design is a procedural plan that is adopted by the researcher to answer research questions validly, accurately, objectively, and economically. The research design in this research used a case study. David and Sutton (2011), defines a case as an individual unit being studied and could be a person, an institution, a household, and organization and so on. It is an intensive analysis of an individual unit stressing developmental factors in relation to

environment. This method was suitable in this study because it is a flexible of all research designs and equally it allowed the researcher to maintain the holistic characteristics of real-life events while investigating empirical events.

3.3 Study Area

The study involved four academic university libraries found at Dodoma region in Tanzania. Specifically, the academic universities were UDOM, CBE, IFM and IRDP. The study location was purposively chosen due that they fall under the category of academic institutions and are registered members of The Consortium of *Tanzania* University and Research Libraries (COTUL). In other wards they are subscribers to the consortiums' services as well as users of the product. The name of Consortia is the Consortium of Tanzania Universities and Research Libraries. This study is all about its contributions to academic resources development. Therefore the four academic universities were thought to be assessed instead of academic universities found in Tanzania

3.4 Study Population

According to Pandey & Pandey (2015), population is the entire mass of observations, which is the parent group from which a sample is to be formed. It also means characteristics of a specific group. The population under this study included library directors, library staff (librarians), academic researchers and postgraduate students since they are associated with the use of e-resources accordingly. Library staff does train on technical aspects, retrieval and use of e-resources. Library staff in turn trains library users during orientation of new students and on a continuous basis. In

addition, they also offer other varied services to library patrons ranging from troubleshooting of the publisher's available databases, monitoring and evaluation of these resources and are involved in promotion of COTUL products and services to their University Community. Postgraduate students who are library patrons utilize e-resources from COTUL on their day to day academic and research activities.

3.5 Sample and Sampling Techniques

According to Singh and Masuku (2014), sampling is associated with the selection of a subset of individuals from within a population in order to estimate the characteristics of a whole population. In other words, sampling is the process of selecting a few respondents from a bigger group for the purpose of data collection. A sampling technique therefore is the exact method used to select a sample for a study. Purposive sampling method was used to select respondents for this study. Kumar (2011) noted that the major consideration in purposive sampling technique is the researcher's judgment as to who can give the best information to realize the objective of the study. He noted that, inferences drawn identified samples can be generalized to the total sampling population. The researcher purposively included academic researchers due to that they are researchers who need variety of literatures or materials from different sources. When their library is well equipped with resources, their work of research becomes easier. Library directors also were purposively thought first of all most of them are leaders of COTUL. To provide information concerning resource development of their library through COTUL was perfect. The same reason was thought to librarians. Postgraduate students are user or consumers of library resources, they have a full picture of the availability of their library

resources especially those utilizing library e-resources subscribed via COTUL. A total sample of two hundred (200) was selected from the whole population of the four academic libraries. Academic researchers and post graduates' students do conduct research, this ensure that they interact with a number of e-books and e-journals at various stages during their research writing period. Also, librarians from the four academic libraries were considered.

3.6 Data Collection Methods and Instruments

3.6.1 Data Collection Methods

Rose and Baffoe-Djan (2020), defined data collection as the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcome. Karim, A. (2014), states the importance of data collection that accurate and systematic data collection is critical to conducting scientific research, allows us to collect information that we want to collect about our study objects and depending on research type, methods of data collection include documents review, observation, questioning, measuring, or a combination of different methods.

3.6.2 Data Collection Instruments

Abawi (2013) analysed that, accurate and systematic data collection is critical to conducting scientific research. Data collection allows us to collect information that we want to collect about our study objects. Depending on research type, methods of data collection included documents review, observation, questioning, interview, measuring, or a combination of different methods. Data collection instruments that

were used in this study comprised questionnaires and interview. These were formulated through the guidance of the study objectives and the research questions of the study.

3.6.2. 1 Questionnaire

A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Questionnaires provide a relatively cheap, quick and efficient way of obtaining large amounts of information from a large sample of people (Mcleod, 2023)

The questionnaires consisted both closed and open-ended questions and were distributed by the researcher to the respondents both to academic researchers, librarians and to post graduate students then was corrected from them within a stipulated period of time. Academic researchers, librarians and post graduate students filled the questionnaires accordingly. Questionnaires were used in this research for they are fast, efficient and inexpensive means of gathering large amount of information from sizeable sample volumes. They are also particularly effective for measuring subject behaviour, preferences, intentions, attitudes and opinions. Therefore, this instrument was suitable to academic researchers, librarians and post graduate students.

3.6.2.2 Interview

According to Easwaramoorthy & Zarinpoush (2006), an interview is a conversation for gathering information. Research interview involves anointer viewer, who

coordinates the process of the conversation and asks questions, and an interviewee, who responds to those questions. Interviews can be conducted face-to-face or over the telephone. The internet is also emerging as a tool for interviewing. An interview schedule was prepared basing on the research objectives and was used to interview library directors from the four academic university libraries. During the interview sessions, data was recorded in hand written notes which then later were transcribed in the computer for analysis. Interview was used in this study due to that it allowed a researcher to prompt interviewee by providing a set of example responses, has the potential to be quick and easy to conduct, easy to obtain specific data related directly to research topic therefore a researcher can ask further questions to gain more in depth and collect respondent's ideas, opinions, values and beliefs about a certain topic.

3.7. Data Quality Assurance

3.7.1. Reliability

Kumar (2011) defines reliability as the capability of a research instrument to yield similar results when used repeatedly under similar environment. It indicates constancy, accuracy and predictably of the research instrument. Reliability aids in the establishment of internal consistency, interpretation of data and predicting of the value scores (Pharm, 2008). In order to maintain reliability in this study, the researcher ensured that, respondents were purposively selected to participate in the study hence, this ensured the provision of best information thus therefore, lead to the achievement of the objectives of the study. This was done hand in hand in formulating the questionnaires and the interview schedule by considering the

objectives. This helped to maintain and kept the focus of the study. All in all, the researcher presented the same type of questionnaire to all members, that is, all COTUL members who participated in the research. The assumption here is that all respondents had the same interpretation of the questions; however, the researcher made sure that all questions were constructed in the English language so as to be easily to be read and understood by all members involved in the research.

3.7.2 Validity

As mentioned, an instrument is valid if it measures what it was intended to measure and covers all research issues both in terms of content and detail (Taole, 2008). The content validity of the research instruments will be established to reflect the research content. The researcher employed more than one instrument of data collection to ensure validity is maintained in this study. Questionnaire and interview schedule were used to collect data and was professionally constructed to eliminate errors.

3.8 Data Analysis and Presentation of Findings

Data analysis is defined as a process of cleaning, transforming, and modelling data to discover useful information for business decision-making. The purpose of Data Analysis is to extract useful information from data and taking the decision based upon the data analysis (Ashirwadam, 2014). The analysis of quantitative data from the study, Statistical Package for Social Sciences (SPSS) version 22 for Windows was used. Descriptive statistics such as frequency distributions and percentages were used in examining and analysing the collected data while interpretation of data was presented in form of tables, pie charts and graphs. Various categories of qualitative

data were established and their relationships. Themes and categories were also generated and relevant codes were done manually. Qualitative data from the open questions on both instruments were analysed qualitatively by categories, themes and patterns.

3.9 Research Philosophy and Ethics

Research ethics to be observed in this study will be in accordance with those stated by Polit and Hungler (1995), namely the principles of beneficence, of respect for human dignity and of justice.

3.9.1 The Principle of Beneficence

The principles of beneficence include freedom from harm, freedom from exploitation and the risk benefit ratio. With regard to the freedom from harm, there was no physical harm produced by participants in the study.

3.9.2 The Principle of Respect for Human Dignity

This principle includes the right to self-determination and the right to full disclosure. The right to self-determination was followed by providing the participants with the right to refuse to participate in the study, the right to discontinue the study if they felt uncomfortable, the right not to answer specific questions if they didn't want to disclose the information and the right to ask for clarification if they were not sure about any aspect of the research project and to any specific question.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretations and discussion in line with the objectives of the study. The respondents comprised of library directors, library staff, academic research staff and post-graduate students of the four academic libraries which are CBE, IFM, UDOM and IRDP. The researcher carefully considered the data collected during fieldwork at the University of Dodoma, Institute of Finance Management, College of Business Education and Institute of rural Development Planning both found in Dodoma Region. Data were collected and analysed concurrently throughout fieldwork and was presented in form of tables, charts and graphs. The researcher then drew inferences from the findings so presented.

4.2 Demographic Information

4.2.1 Response Rate

The sample was comprised of 4 library directors, 8 library staff, 40 academic researchers and 148 post-graduate students. Interview schedule was used to gather information from the library directors while library staff, academic researchers and post-graduate students were issued with structured questionnaires to fill. The first category comprised of 4 library directors. All were available for interview during data collection period thus forming 100%. The category of library staff, 8 responded and the questionnaires were properly filled and returned thereby forming 100% response rate. For the category of academic researchers only 29 filled the

questioners out of 40 thus forming 72% and the last category which included post graduate students only 108 out of 148 answered the questioners, this formed 72.97% of respondents. According to Mugenda & Mugenda (2003), 50% response rate can be used to establish the research objectives and answer the research questions. In this case the response rate in this study is very appropriate.

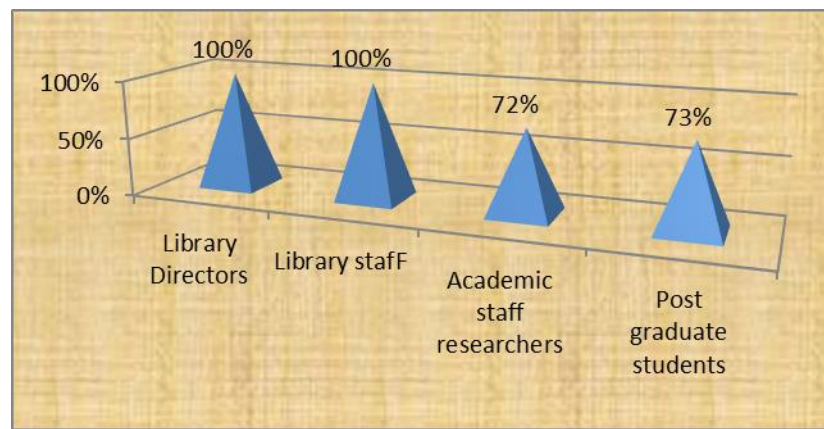


Figure 4. 1: Response rate

4.2.2 Demographic data

This section presents findings on the respondents' background information of importance in the study which included; gender and Information Communication Technology (ICT) proficiency. Table 4.1: Below indicates category one of respondents by gender from the four academic University libraries which are found in Dodoma Region specifically UDOM, CBE, IFM and IRDP. Male respondents formed only at 25% while female respondents formed the majority at a rate of 75%. These results imply that, position of library directors is highly possessed by females hence gender imbalance.

Table 4. 1: Library Directors by Gender (N=4)

Gender	Frequency	Percentage
Male	1	25
Female	3	75
Total	4	100

Source: Field Data, 2023

The second category of respondents comprised of library staff from the four academic university libraries. Table 4.2 indicates frequency of respondents in this study. Majority of them were male respondents at 63% while female respondents were at 37%. In this category the male response rate is higher than female rate. This means that at this level of male library staff are many than female library staff.

Table 4. 2: Library Staff by Gender (N=8)

Gender	Frequency	Percentage
Male	5	63
Female	3	37
Total	8	100

Source: Field Data 2023

Another category of respondents comprised of academic researchers from the four academic university libraries Table 4.3 indicates frequency of respondents in this study. Female respondents were at a rate of 55% while male respondents were at a rate of 45%. There is only a different of 5%. This was considered vital because it would help the researcher arrive at conclusions which are not skewed based on gender of respondents.

Table 4. 3: Academic Researchers by Gender (N=29)

Gender	Frequency	Percentage
Male	13	45
Female	16	55
Total	29	100

Source: Field Data, 2023

The last category of respondents comprises post-graduate students from the four academic university libraries Table 4.4 indicates frequency of respondents in this study. Majority of them were female respondents at 54% while male respondents were at 46%. In this category there is a different of 10% between male and female. From table 1, 2, 3 and 4 the difference in gender balance is minimal, so there was no biasness.

Table 4. 4: Postgraduates students by gender (N=108)

Gender	Frequency	Percentage
Male	50	46
Female	58	54
Total	108	100

Source: Field Data, 2023

4.2.3 ICT Skills Levels

According to Oluwasey (2012), in this age of globalization, the importance of ICT to people generally and information professionals in particular cannot be overemphasized. This is true because ICTs facilitate quick and easy access to a wide range of information/information resources worldwide. In fact, it is now difficult to

imagine a world without information technology. The provision and use of ICT is part and parcel of the entire system, to both the students, information professionals and the institutions. It was therefore important for the researcher to establish computer skills of the respondents because it has an impact on how respondents interact with e-resources in these institutions. The findings in figure 4.2 indicated that out of 145 respondents, 60% had basic knowledge of ICT, 29 % had average knowledge of ICT and 11% were advanced or were proficiency in ICT.

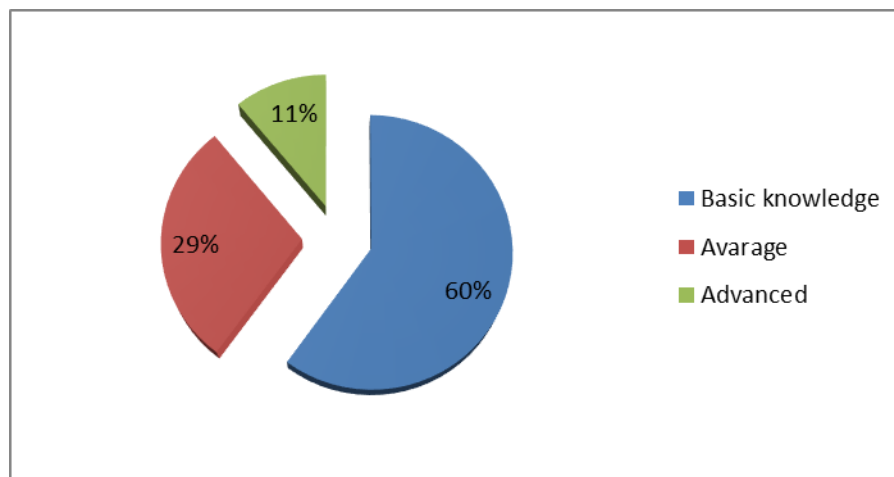


Figure 4. 2: ICT Skills Levels

Source: Field Data, 2023

4.2.4 Presence and Awareness of Databases Subscribed via COTUL

A researcher was interested to find out the position and awareness of different databases being subscribed by these institutions via COTUL. The questionnaires were passed to academic researchers and post graduate students. It was found out that 95% of respondents were aware with the presence of databases at their libraries; only 5% doesn't know and are not aware. The study finding therefore shows that

majority of the respondents were aware with the presence of e- resources in their libraries. This data is important because it has policy implications on librarians need to be kept abreast with the emerging technologies in a bid to always be ahead of their library clients.

Table 4. 5: Awareness of Databases Subscribed

N/S	Responses	Aware (%)	Not aware (%)
i	Academic staff researchers	95	5
ii	Post graduates' students	95	5

Source: Field Data, 2023

4.2.5 Means that Led to the Awareness of Databases Subscribed via COTUL

Having established that majority of respondents were aware of e-resources provided by their institutions that is 95% as indicated in Figure 4.3, the researcher sought out the methods in which this awareness was created. As indicated in figure 4.4, 93% of the majority respondents indicated that they were made aware of the e-resources through library orientation. 81% of the respondents indicated that library training sessions also plays a major role as indicated in the findings while seminars/workshops/conferences were equally vital at 80% respectively. Lectures at 60%, notice boards, friends and colleagues as well posters are 47%, 17%, and 9% respectively. But it is shown that friends and colleagues, also posters are not very effective in transforming awareness to these academic libraries. Therefore, the study notes that if orientation programmes were enhanced could be preferred and effective methods of creating e-resources in these libraries.

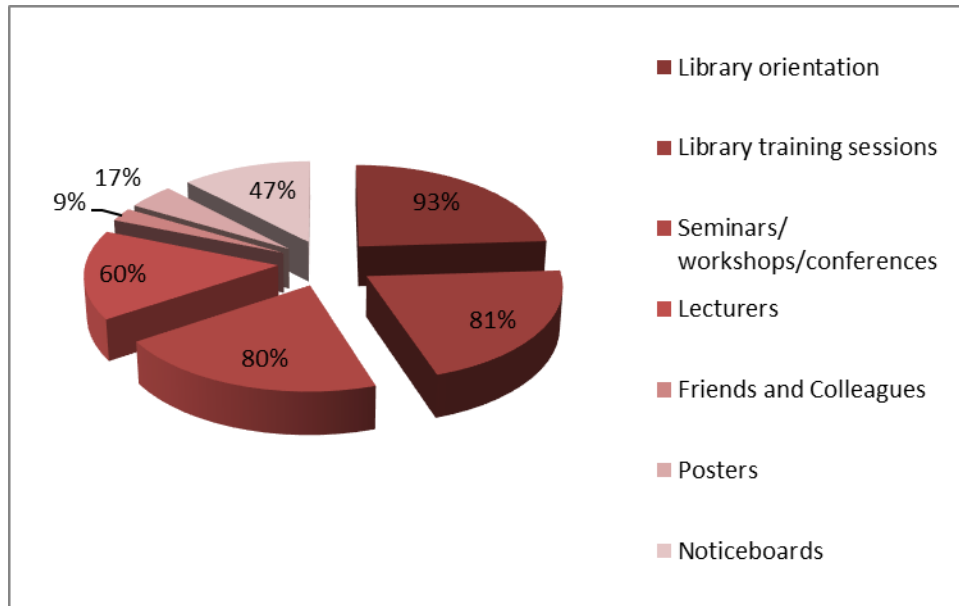


Figure 4. 3: Means that Led to the Awareness of Databases Subscribed via COTUL

Source: Field Data, 2023

4.2.6 E-Databases subscribed by via COTUL

The study also sought to find out whether e-resources subscribed via COTUL were well known to the studied academic University libraries. To find out how much and how many databases subscribed are known, the study required the respondents to mention the e- resources they are aware with. The responses showed that 100% of library directors and library staff mentioned EBSOHOST, EMERALD, RESEARCH FOR LIFE, IMF, JSTOR, and WILEY AND OXFORD UNIVERSITY PRESS. While 89% of academic researchers mentioned EBSOHOST EMERALD, RESEARCH FOR LIFE, IMF, JSTOR, WILEY AND OXFORD UNIVERSITY PRESS and 72% of post graduate students mentioned EBSOHOST, EMERALD,

RESEARCH FOR LIFE, IMF, JSTOR, WILEY, ON LINE LIBRARY AND OXFORD UNIVERSITY PRESS.

4.2.7 Frequency in the Use of E-Resources

Respondents were asked to indicate the frequency in the use of e-resources and the results were recorded in table 4.5: The majority of the respondents indicated that they infrequently used the e- resource on a monthly basis at 92%, on a weekly basis at 8%. There was no any respondent who use e-resources monthly and at rarely.

Table 4. 6: Frequency in the Use of E-resources (N=145)

Usage	Respondents	Percentage
Daily	134	92
Weekly	11	8
Monthly	-	-
Rarely	-	-

Source: Field Data, 2023

4.3 Contribution of COTUL to Academic Library's resources Development

COTUL was established to fulfil the obligation of e-resource in academic library institutions so as to bridge the gap of information scarcity. The researcher sought to find out whether COTUL has fulfilled this obligation and how much had they developed in e-resources through COTUL's contribution. 100% of respondents assured that there are contributions done by COTUL to the development of e-resources in their institutions.

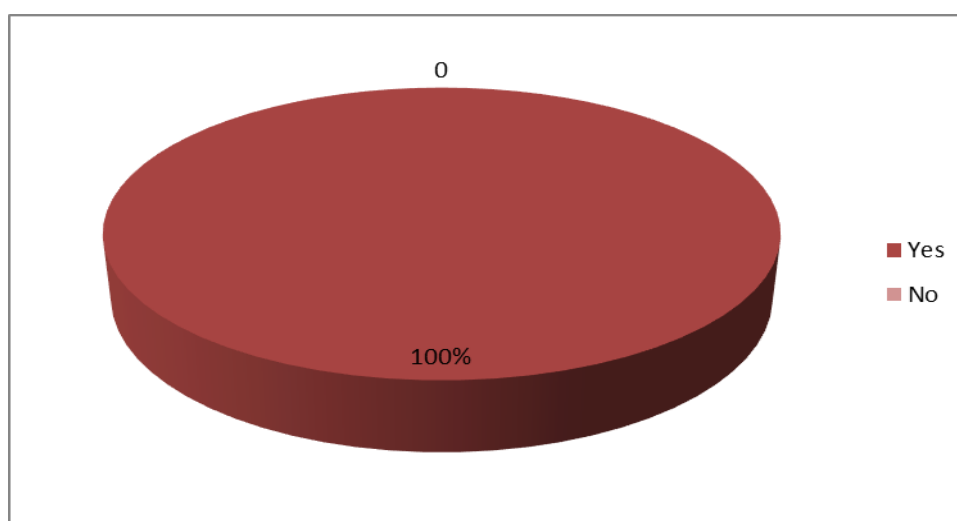


Figure 4.4: Contribution of COTUL to academic library's resources development

Source: Field data, 2023

Respondents were asked to tick the listed roles accordingly regarding the way they knew COTUL in their respective institutions. Their responses are as summarized in Table 4.6.

Table 4. 7: Contributions done by COTUL to Academic Libraries

No	Contributions done	Frequency	Percentages
1	Providing access to a high quality and scholarly electronic resources	114	78
ii	Promoting rapid and efficient access to scholarly content to the users	121	83
iii	Promoting the use of ICT in teaching and learning to her members.	97	67
iv	Imparting training to the users in the use of electronic resources	106	73
V	Promoting the use of e-resources	106	73
vi	Enhancing interaction and cooperation amongst the participating universities	92	63
vii	Evaluating usage of the subscribed resources and to identify new resources needed	68	46
viii	Qualitative change in teaching, learning and research	75	51
ix	Enhances publications research productivity of the institutions both in terms of quality and quantity	140	96

Source: Field Data, 2023

4.3.1 Idea Concerning COTUL's Database being Subscribed

The researcher thought to establish whether academic researchers and post graduate students have any idea and how much they know and understands COTUL. 96% have the idea and understands COTUL; only 4% seems not to understand it.

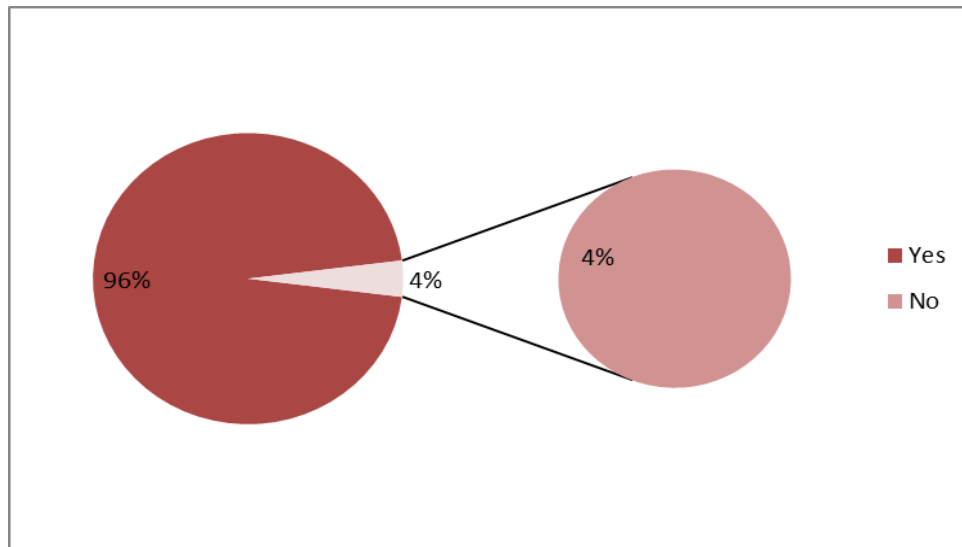


Figure 4. 5: Ideal on COTUL'S Database subscribed

Source: Field data 2023

When asked to mention in which ways or means led them to understand COTUL, 68% mentioned library orientation as one way or means that led them to understand COTUL. 51% library training sessions, 39% mentioned training manuals and brochures, 28% mentioned social media and 57% mentioned library website.

4.3.2 Accessibility of COTUL online database

In this study a researcher also administered this question aiming at finding out whether in these four academic universities there are such problems or no. 90% of

academic researchers do access COTUL'S online database only 10% do not, 85% of Post graduate students also do access and 15% do not, 100% of library staff and library directors do access online databases subscribed through COTUL.

Table 4. 8: Accessibility of COTUL online database (N= 149)

S/No	Responses	Have access (%)	Have no access (%)
i	Library directors	100	-
ii	Library staff	100	-
iii	Academic staff researchers	90	10
iv	Post graduate students	85	15

Source: Field Data, 2023

4.3.3 Uses of Databases Subscribed by COTUL

Akinola et al., (2018) in their study noted that e-electronic databases in the libraries have made information available to scholars and postgraduate students for study or research purposes. The study sought to establish the uses of databases subscribed by the four universities through COTUL whereby the aim of a researcher was to find out the uses of the database subscribed by these four academic libraries. The results from all categories of respondents are summarized in Table 4.8.

Table 4. 9: Uses of Databases Subscribed by COTUL (N=149)

S/No	Uses of databases	Frequency	Percentages
I	writing research papers	141	97
Ii	academic and research activities	141	97
Iii	teaching and research works	133	91
Iv	Notes preparation and assignments	129	89
V	preparing for seminars and conferences	127	87
Vi	preparing teaching materials and lecture notes	106	73
vii	References	102	70

Source: Field Data, 2023

4.3.4 Helpful of COTUL to the Learning Carrier Development

COTUL is a formal association of academic and research institutions for the purpose of engaging in joint information provision activities particularly; Acquisition of electronic information sources, Research, Training, Consultancy and others deemed critical in the attainment of academic excellence in learning, teaching and research in academic institutions. The College of Business Education (CBE) collaborates with COTUL as a member and benefits in joint information provision activities particularly; Acquisition of electronic information sources, Research, Training, Consultancy and others deemed critical in the attainment of academic excellence in learning, teaching and research. From this elaboration from the Collage of Business Administration, it was agreed by 100% of all category of respondents that COTUL is helpful to the learning carrier development.

4.4 COTUL Cooperation with Higher Learning Institutions

COTUL'S mission is to provide leadership and building of synergy in knowledge and information sharing through capacity building, advocacy, networking and collaborations (COTUL, 2009). A researcher was eager to know whether practically COTUL do cooperate with higher learning institutions. Results are summarized in Table 9.

Table 4. 10: COTUL Cooperation (N=121)

S/No	Category of respondents	Frequency	Percentages
I	Library Directors	4	100
Ii	Library staff	8	100
Iii	Academic staff researchers	27	93
Iv	Postgraduates' students	82	76

Source: Field Data, 2023

The ways in which COTUL cooperate with its members were selected by respondents where 93% mentioned workshops as the way of cooperating, 74% ought to conferences, 68% also ought to seminars, 60% sees meeting a way that COTUL cooperate with its members and only 14% of respondents mentioned visitation.

4.5 Relevance and Benefits Acquired by COTUL's E-resources

In order to establish whether academic researchers and post-graduate students from the four Universities the e-resources subscribed are relevant to their academic and research needs, majority of respondents or 93% indicated that the e-resources were relevant that's why they used them for their academic as well as for their research purposes. However, 7% indicated that the e-resources provided by COTUL were irrelevant for their academic and research purposes.

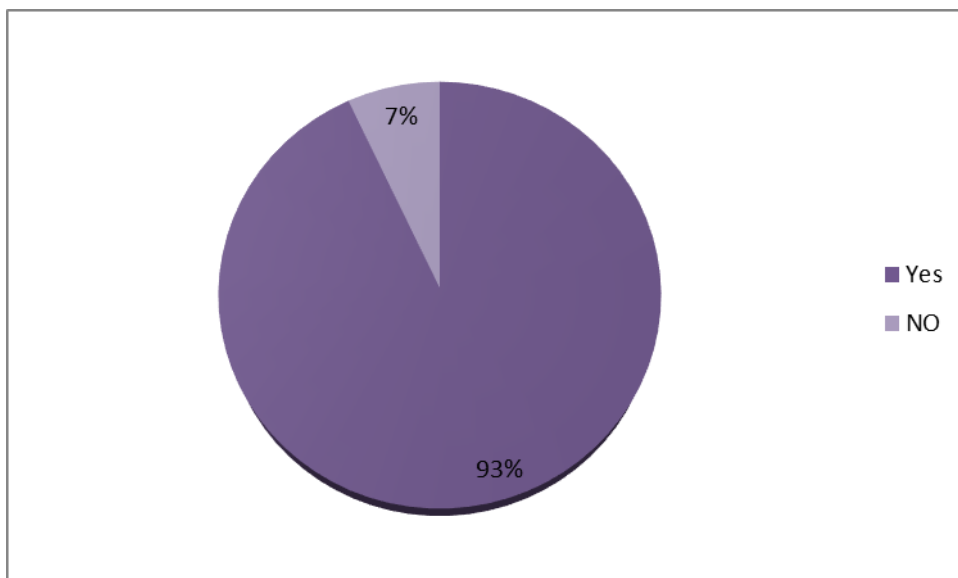


Figure 4. 6: Relevance of COTUL's e-resources

Source: Field Data, 2023

4.5.1 COTUL Products Relevancy to Its Users Needs

The responses from academic researchers and post graduate students in clarifying how far COTUL products were relevant, 99% responded COTUL'S product to be relevance in assignments, 97%-pointed relevance in reference, 95% again pointed relevance in research while 88% indicated relevance in knowledge development and specialization.

4.5.2 Benefits of COTUL to the Institutions

Respondents from all categories were asked to tick benefits of COTUL to the institutions. Their responses are summarized in Figure 4.8

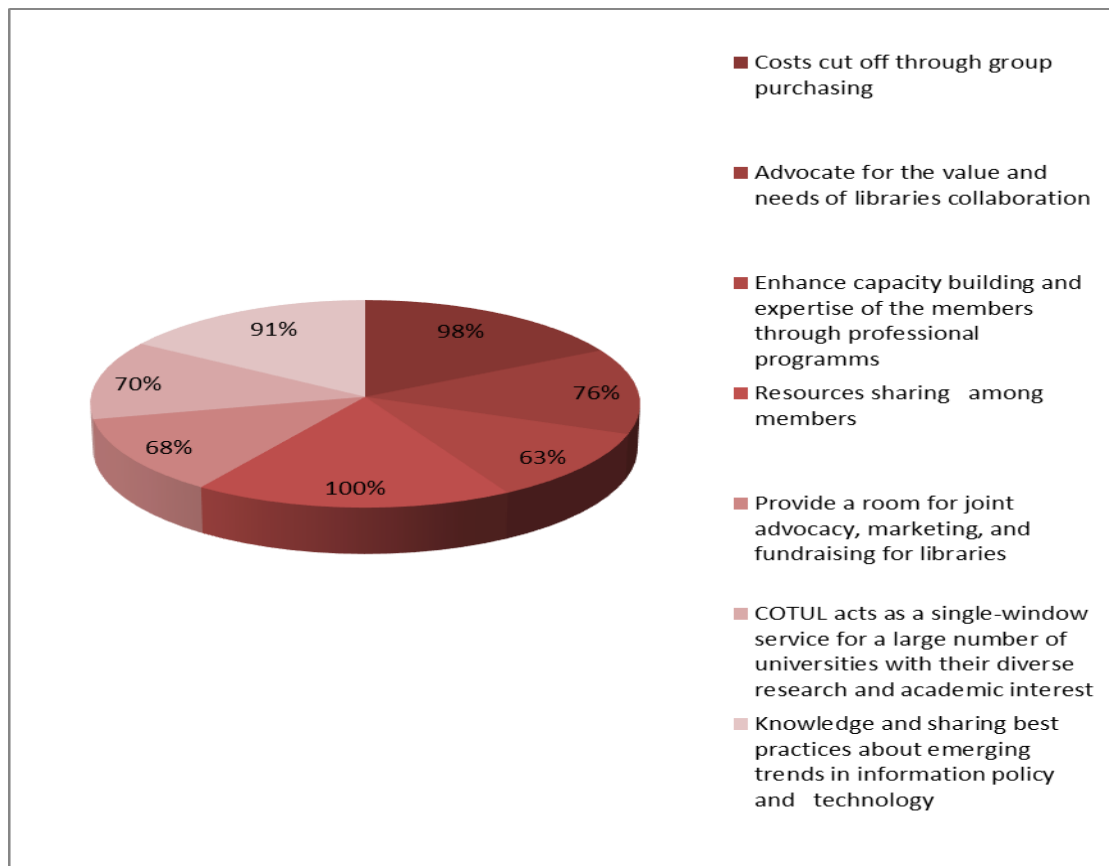


Figure 4. 7: Benefits of COTUL to the Institutions

Source: Field Data, 2023

4.6 Challenges Encountered in Utilizing COTUL'S E-resources

To establish whether there were problems in utilizing e-resources from the consortium, respondents indicated that 89% had challenges while 11% said they had no problem in utilizing COTUL'S resources.

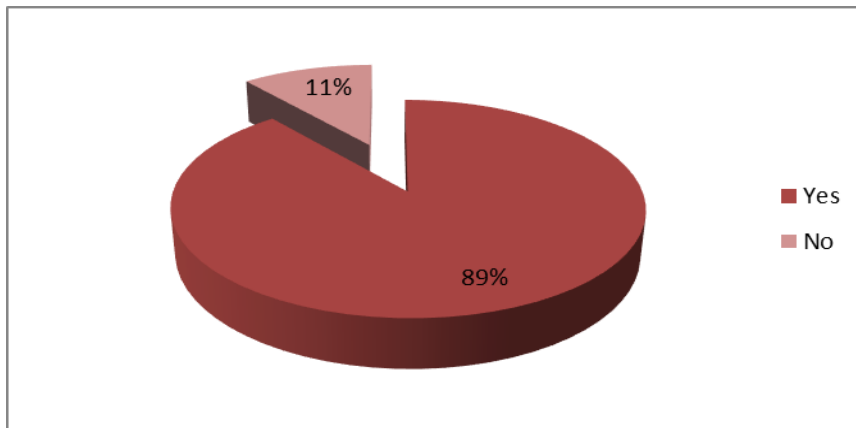


Figure 4. 8: Challenges encountered in utilizing COTULs e-resources

Source: Field Data, 2023

4.6.1 Problems faced and how often

Respondents were asked to indicate challenges they often faced while accessing e-resources when they need solving various aspects in need. They were asked to choose between very often, often, always, rarely and never.

Table 4. 11: Problems Faced and How Often (N=149)

	Problems Identified	Very Often (%)	Often (%)	Always (%)	Rarely (%)	Never (%)
i.	Instability of internet	13	52	17	14	4
ii.	Complex user interfaces	25	22	3	31	19
iii.	Unable to understand technical terms used	7	16	19	54	4
iv.	Connectivity problems	24	60	6	8	2
	Lack of searching skills	17	36	33	8	6

Source: Field Data, 2023

The research findings showed that more than half of the students were often affected by instability of internet. Finding of the study agrees with Peter & Santha (2017) that internet instability is a challenge and this is caused by issues like connection breaks, Spam Mail POPOUTS, Winner Declare POPOUTS, Advertisement POPOUTS, inconsistent speed, commuting take long time to refresh, fail to load, Auto Downloads therefore lead to session failures. Considering that in the modern era, most of the students are using Internet, internet has become a part of their day to day life. Therefore, there is a need to make alternatives to make internet be stable to make students survive. However less than half of the respondents indicated that complex user interfaces rarely affected them. Also, the study continues to show that unable to understand technical terms used is a rarely challenge. Although Mwantimwa et al., (2021) mentioned retrieval of junk and difficulties in finding relevant information, this problem in one way or another concurs with what respondents have said.

A significant number of respondents indicated that connectivity problem was often experienced. Internet connectivity is imperative in accessing electronic resources among the four universities. The researcher found it necessary to find out whether internet connectivity was a challenge in searching and retrieving electronic resources from e resources provided by COTUL

Less than half of respondents said lack of searching skills is a challenge. Mwantimwa et al., (2021) in the study concerning Academic Staff and Researchers' Use of Electronic Resources in Tanzania mentioned lack of IT skills, lack of search

techniques and Inadequate ICT application knowledge and skills were also identified as limiting factors.

The respondents additionally specified the following challenges:

- i. Lack of enough computers hampered their accessing information resources
- ii. Unreliable power supply
- iii. Inadequate access to subscribed e-resources and databases limited access to computers
- iv. Lack of training and limited access to terminals
- v. Absence of Off Campus access capabilities
- vi. Wi-Fi connectivity coverage is limited to some areas in the library
- vii. Limited power sockets for charging laptops, smart phones, iPad and other devices also affected use of e-resources.

4.6.2 Suggestions on what can be done to Eliminate the Identified Challenges

To elicit the respondents on elimination of challenges facing fully access to e-resources accessed by these academic Universities through COTUL, they were asked to give own suggestions. Respondents in both categories indicated the following actions geared towards enhancement of efficient use of e-resources provided by COTUL:

- i. Post-graduate students should be taught information searching skills in their first year of study.
- ii. Information literacy (IL) skills be integrated into the academic program in every level of education that is under-graduate and post-graduate levels

- iii. The library should establish fully networked resource centres and improve Wifi connectivity.
- iv. Lecturers ought to insist on students using e-resources in their assignments

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the main findings, conclusions made from the findings, and recommendations. It also includes suggestions for further study. The summary is provided with reference to the aim, objectives, research questions and assumptions. The aim of the study was to assess the “Contribution of the Consortium of Tanzania Universities and Research Libraries in Academic Resources Development: The Case of Selected Academic Libraries in Dodoma, Tanzania”: The study was based on the following specific objectives, to identify the contribution done by COTUL to academic libraries, to analyse ways in which COTUL works/cooperate with academic institutions, to find out views on relevancy and benefits of COTUL’S products and services in meeting users’ needs and to identify challenges that have been encountered in utilization of e-resources provided by COTUL so far.

5.2 Summary and Discussions of Findings

5.2.1 Lack of Sufficient Skills

The provision and use of ICT is part and parcel of the entire system, to both the students, information professionals and the institutions. The findings in figure 4.1 indicated that 60% of all respondents had basic knowledge of ICT, 29 % had average knowledge of ICT and 11% were advanced or were proficient in ICT. Therefore, it is

obvious that, the performance level in ICT in these four academic institutions was low as 11% from all respondents were advanced in ICT.

5.2.2 Contribution of COTUL to academic resources development

The findings from figure 4.5 indicated that 100% agreed on COTUL's roles to their institutions. This means that COTUL contributes a lot to the growth and development of e-resources to its member institutions. This is being concluded by the findings in table 4.6 whereby amongst the roles mentioned, only one role has less than 50% while other roles are higher than 50%.

5.2.3 Relevance and benefits of COTUL's products

The study found out that the e-resources subscribed by their institutions through COTUL were relevant. 93% of the respondents concluded the relevance, only 7% did meet e-resources to be irrelevant for their academic and research studies.

5.2.4 Challenges Encountered in Utilizing COTUL's E-resources

The researcher found out that despite e-resources being provided but are not well accessed accordingly due to various challenges that create difficult environments that make e-resources not to be user friends. Challenges such as instability of internet, complex user interfaces, unable to understand technical terms used, connectivity problems, lack of searching skills. 60% of responses said that connectivity problems are often a hindrance and 52% of responses meet often internet instability. 25% responses said that complex user interface occurs very often. 33% of responses pointed out lack of searching skills happen always and 54% responses said unable to

understand technical terms used happen very rare. Lastly 19% said complex user interfaces is never a challenge.

5.3 Conclusions

Based on the research findings, it can be said that COTUL has played its role as an advocate to transform e-resources to academic institution libraries. It has an influence in the promotion of e-resources to its member institutions and engaging itself in enhancing interaction and cooperation among the participating universities. COTUL makes sure that there is qualitative change in teaching, learning and in research. COTUL's benefits to its members is seen in its efforts of creating environment that enhances resource sharing among members costs cut off of purchasing e- resources, knowledge and sharing best practices about emerging trends in information policy and technology. Others includes, its single-window service for a large number of universities with their diverse research and academic interest, presence of a room for joint advocacy, marketing, and fundraising for libraries and its willing to enhance capacity building and expertise of the members through professional programs. Utilization of e-resources provided by COTUL may not be fully realized because of lack of ICT skills by a majority of library users. This may lead to wastage of finances if efficient and effective methods concerning access and uses of e-resources are not developed and taught through training. The emphasise is to establish means of e-resources infrastructures to users are inevitable. However, the e-resources provided by COTUL are not fully accessed due to unfriendly environment that are found within the institutions. Most of the institutions experience similar challenges like Lack of enough computers, unreliable power

supply, inadequate subscribed e-resources and databases, limited access to computers, lack of training and limited access to terminals, absence of Off Campus access capabilities and Wi-Fi connectivity coverage is limited to some areas in the library.

5.4 Recommendations

From the findings of the study, it is clear that COTUL has contributed a lot to the growth and development of e-resources to these academic institutions. In order these e-resources to develop more and yield fruitful results to the users, there is a need to bridge gaps that which course e-resources not to utilized m effectively by users.

- i. Academic library institutions should enhance and stimulate ICT programs so as to make sure that students have required knowledge to let them not hesitate in accessing e-resources materials;
- ii. Training of library users concerning subscribed databases to let them be known;
- iii. Library directors should advise the management on increasing the budget so as to increase more computers for every financial year;
- iv. In special rooms like library room and computer rooms there should be stand by generators; and
- v. Information literacy skills be integrated into the academic program in every level of education.

5.5 Recommendations for Further Research

This study was about the Contribution of Consortium of Tanzania Universities and Research Libraries in Academic Resources Development. Further investigation should be done on the following areas:

- i. Factors affecting effective growth of the Consortium of *Tanzania* University and Research Libraries;
- ii. A study on the causes of COTUL's members to withdraw of from the consortia; and
- iii. Assessing the possibilities of eliminating the challenges hindering the growth of COTUL.

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APPENDICES

APPENDIX I

Questionnaires to academic research staff, library staff and post graduate students.

Introduction

I am a student at the Open University of Tanzania pursuing a Master Degree in Library Management (MLM). I am conducting a research study entitled: **Contribution of consortium of Tanzania Universities and research Libraries in Academic resources development: The case of selected academic Libraries in Dodoma, Tanzania.** You have been identified and selected to participate in this study. Kindly fill the questionnaire as adequately as possible. The information submitted will be used for research purpose only. All answers will be held in confidence and will not be used in any way against the respondent or the institution. The questions will take only a few minutes to complete.

Thank you.

Renata S. Bitumbiko

Reg. No.PG201986654

Instructions:

Please Tick (√) or give comments where applicable.

A: RESPONDENT'S DETAILS

1. Gender

(a) Male

(b) Female

2. ICT proficiency

(a) Basic

(b) Average

(c) Advanced

B: PRESENCE AND AWARENESS OF DATABASES SUBSCRIBED VIA COTUL

1. Are you aware of e-resources subscribed by your library through COTUL?

(a) YES

(b) NO

2. If yes, tick any means bellow that made you know them (You can tick more than one means)

(a) Library orientation

(b) Library training sessions

(c) Seminars/ workshops/conferences

(d) Lecturers

(e) Friends and Colleagues

(f) Posters

(g) Notice boards

3. Mention the e- databases subscribed by COTUL that you are aware with

(a).....

(b).....

(c).....

(d).....

(e).....

4. How often do you use e-resources subscribed by your library through COTUL

(a) Daily

(b) Weekly

(c) Monthly

(d) Rarely

1. There any contribution done by COTUL in academic Institutions in terms of resorce developments?

(a) YES

(b) NO

2. If yes, what are the contributions being done by COTUL? (Tick one or more than one)

(a) Providing access to a high quality and scholarly electronic resources

(b) Promoting rapid and efficient access to scholarly content to the users

- (c) Promoting the use of ICT in teaching and learning to her members.
- (d) Imparting training to the users in the use of electronic resources
- (e) Promoting the use of e-resources
- (f) Enhancing interaction and cooperation amongst the participating universities
- (g) Evaluating usage of the subscribed resources and to identify new resources needed
- (h) Qualitative change in teaching, learning and research
- (i) Enhances publications research productivity of the institutions both in terms of quality and quantity
3. Do you have any idea concerning COTUL?
- (a) YES
- (b) NO
4. If yes, how did you know about them?
- (a) -----
- (b) -----
- (c) -----
5. Do you have any accessibility of COTUL online database?
- (a) YES
- (b) NO
6. What are the uses of databases subscribed by COTUL?
- (a) -----
- (b) -----
- (c) -----
- (d) -----
7. Is COTUL helpful to the learning carrier development?
- (a) YES
- (b) NO
8. If no explain how is not helpful
- (a) -----
- (b) -----
- (c) -----
- (d) -----

D. COTUL COOPERATION WITH HIGHER LEARNING INSTITUTIONS

1. Do COTUL and its members cooperate?

(a) YES

(b) NO

2. How COTUL cooperate with its members (Through)

(a) Workshop

(b) Meeting

(c) Visitation

(d) Seminars

(e) Conferences

E. RELEVANCE AND BENEFITS OF COTUL PRODUCTS

1. Is COTUL beneficial to your institution?

(a) YES

(b) NO

2. How far is COTUL products relevancy to your needs (Tick one or more than one)

(a) Relevance in reference

(b) Relevance in research

(c) Relevance in assignment

(d) Relevance in knowledge development and specialization

3. What are the benefits of COTUL to your institution (Tick one or more than one)

(a) Costs cut off through group purchasing

(b) Advocate for the value and needs of libraries collaboration

(c) Enhance capacity building and expertise of the members through professional programs

(d) Resources sharing among members

(e) Provide a room for joint advocacy, marketing, and fundraising for libraries

(f) COTUL acts as a single-window service for a large number of universities with their diverse research and academic interest.

(g) Knowledge and sharing best practices about emerging trends in information policy and technology

F. CHALLENGES ENCOUNTERED IN UTILIZING COTUL'S E-RESOURCES

1. Do you face any problems when accessing e-resources subscribed through COTUL?

(a) YES

(b) NO

2. If yes what problems do you face and how often?

S/No	Problems	Very often%	Often%	Always%	Rarely%	Never%
1	Instability of internet					
2	Lack of searching skills					
3	Complex user interfaces					
4	Unable to understand technical terms used					
5	Connectivity problems					

3. Any other please specify

(a)

(b).....

(c).....

(e).....

(f).....

(g).....

4. Kindly give suggestions on what you think can be done to enhance access to e-resources subscribed to your library through COTUL

(a).....

(b).....

(c).....

(d).....

(e).....

APPENDIX 11

Structured Interview Schedule to Library Directors

Introduction

I am a student at the Open University of Tanzania pursuing a Masters Degree in Library management (MLM). I am conducting a research survey entitled: **Contribution of consortium of Tanzania Universities and research Libraries in Academic resources development: The case of selected academic Libraries in Dodoma, Tanzania.** You have been identified and selected to participate in this study. I am kindly requesting for your participation in responding to the interview questions posed as adequately as possible. The information gathered will be used for research purpose only. All answers will be held in confidence and will not be used in any way against the respondent or the institution. The session will take only a few minutes of your time. Thank you.

Renata S. Bitumbiko

Reg. No.: PG201986654

1. Is there any contribution done by COTUL in academic Institutions?
 - i) If yes, what are the contributions being done?
2. Is there any cooperation between COTUL and its members?
 - i) In which ways does this cooperation appear?
3. Is COTUL beneficial to your institution?
4. What are the benefits of COTUL to your institution?
5. How far is COTUL products relevancy to your needs?

6. Do you face any problems when accessing e-resources subscribed through COTUL

7. What do you think can be done to enhance access to e-resources subscribed to your library through COTUL?

1.