

**Library consortia and Zimbabwe's national development agenda: Librarians'
views on constructing a suitable model**

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ABSTRACT

The development of library Consortia in Zimbabwe was necessitated by the need to reduce subscription costs and to widen access to electronic resources as well as implement new technologies among academic libraries. The development of Zimbabwe University Library Consortium (ZULC) and College and Research Library Consortium (CARLC) enabled libraries to cooperate and collaborate in building capacity to support teaching, learning and research through access to quality scholarly information. The trajectory of consortia development in Zimbabwe since 2002 has however been characterised by a focus on the academic sector to the exclusion of other types of libraries. The future development of library consortia in Zimbabwe can be better envisioned when correlated with the country's national development agenda. While not made explicit, this agenda is underpinned by the idea of access to information.

This study investigated how the benefits of the existing library consortia can be harnessed to promote the achievement of Zimbabwe's national development goals.

More specifically, it examined the ways that the development paths of ZULC and CARLC can be transformed to support the country's national development agenda and programmes. This culminated in a model that will accelerate and guide the future development of its library consortia to facilitate a supporting developmental role. The novel aspect of this study is that it seeks to integrate library consortia into the national development plans of a developing country and to extend their benefits as widely as possible.

An extensive literature review of the characteristics, models, and development of consortia in selected countries was complemented by an empirical mixed-method component that generated data through interviews, questionnaires, observation, and the analysis of key documents. A special feature of the study is a detailed analysis of the successes and challenges of library consortia in other countries and in the

Southern African region to supplement the empirical data that informs the proposed model. The main finding is that a model with a multi-type structure and a National Coordinating Committee is best to transform the development paths of Zimbabwe's academic library consortia to support the country's national development agenda. The model's key elements are finance, structure, governance, functions, and special features.

DECLARATION

Student number: 10683870

I, Collece Takaingehamo Chisita declare that:

1. This thesis is my own original work. Where other people's work has been used (either from a printed source, internet or any other source), this has been properly acknowledged and referenced in accordance with the requirements as stated in the University's plagiarism prevention policy.
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Date: August 2016

Supervisor: Prof. Archie Dick

Signed:

DEDICATION

You cannot carry out fundamental change without a certain amount of madness. In this case, it comes from nonconformity, the courage to turn your back on the old formulas, the courage to invent the future. It took the madmen of yesterday for us to be able to act with extreme clarity today. I want to be one of those madmen. We must dare to invent the future. (Thomas Sankara, 1985:141-4)

I dedicate this study to my late mother Mrs. Stella Mushowo, my wife Maryjain, my beautiful children Tatenda, Kudakwashe and Munotida, my students and village mates in Mutoko, and fellow professionals the world over who are my sources of inspiration as I navigate space and time.

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LIST OF ACRONYMS

AAU: Association of African Universities

ADINET: Ahmedabad Library Network

CALIBNET: Calcutta Library Network

CALIS: China Academic Library and Information System

CARLC: College and Research Libraries Consortium

CARLI: Consortium of Academic and Research Libraries Illinois

CARLIGH: Consortium of Academic and Research Libraries

CASHL: China Academic Humanities and Social Sciences Library

CCLC: Community College Library Consortium

COMSAC: Consortium for Material Science and Aero-space Collection

CRL: China Regional Library Network

CULNU: Committee of University Librarians in Nigeria Universities

EIFL: Electronic Information For Libraries

ESAL: Eastern Seaboard Association of Libraries

FRELICO: Free State Library and Information Consortium.

GAELIC: Gauteng and Environs Library Consortium

GIDDL: Ghana's Interlending and Document Delivery Network

HEXCO: Higher Examination Council

ICCOG: Iowa Community College Online Consortium

ICLC: International Coalition of Library Consortia

INASP: International Association for the Availability of Scientific Publications

KLISC: Kenya Library and Information Consortium

LELICO: Lesotho Library Consortium

MALICO: Malawi Library Consortium

NLDS: National Library and Documentation Services

NKRC: National Knowledge Resource Consortium

NULC: Nigerian University Libraries Consortium

OCLC: Online Catalogue of Library of Congress

PERI: Programme for the Enhancement of Research Information

SALI: South African Library and Information Trust

SANLiC: South African National Library and Information Consortium

ZALICO: Zambia Library Consortium

ZIMASSET: Zimbabwe Agenda for Sustainable Socio- Economic Transformation

ZIMCHE: Zimbabwe Council for Higher Education

ZIMLA: Zimbabwe Library Association

ZULC: Zimbabwe University Library Consortium

1 CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Dong *et.al.* (2009:1) attribute the rise of library consortia to: the information explosion, escalating costs of reading material; severe budget allocations; and the increasing demand for improved service. Nfila and Darko-Ampem (2002:203) state that library consortium operations encompass co-operation, co-ordination and collaboration, between and amongst, libraries for cost reduction through shared information resources. A library consortium should be viewed as an association of libraries established by formal agreement, usually to improve services and mutual benefit through resource sharing. Farrow (2011) states that the activities of a library consortium include collaborative licensing; resource purchases; peer exchange; and training. The author further notes that the key benefit of a consortium is the ability to speak with a single voice to funders, policymakers, publishers and others irrespective of the structure or purpose of the consortia. Bedi and Sharma (2007:3) in their analysis of library consortia development in India cite the major factors leading to the development of library consortia as:

- subscription maintenance difficulties even for core journals, due to high journal costs and budgetary constraints;
- electronic provision of access to scholarly articles; and
- cost-saving requirements for library budgets.

Neal (2011) describes 'cooperation' as a part of research libraries' professional DNA, given the transition from knowledge scarcity over the centuries, to increased information production and data overabundance in the twenty-first century. This statement suggests that library cooperation has been a constant for service, success and survival in the knowledge society. Also, it is apparent that increasing collaboration, partnerships, joint ventures and collectives of all types amongst

different library entities will be the future of library cooperation. In this chapter, the researcher will present: the factors contributing to library consortia growth; Zimbabwe's consortia and national development; research questions; limitations and benefits of the study; research methodology overview; definitions of key terms; and an overview of the chapters.

1.2 Some factors contributing to the growth of library consortia

Ngozi (2010) explains how ICTs (Information and Communication Technologies) have precipitated a paradigm shift in information management. Libraries have moved from owning specific physical information items to providing access to many information sources, regardless of their format and location. The author states that the shift from ownership to access appears to be a force also that promotes consortia building. The formation of library consortia at national, regional, and international levels has grown due to the: information explosion; user need diversity; financial constraints; and inability to maintain current services (Kaur, 2013). Consortia partners gain monetary and non-monetary benefits through leveraging their power as a group, not only for costing but also for licensing rights. Some factors for the growth of library consortia are outlined below.

1.2.1 Growth of information

Anassi and Hussaini (2011:1) observed that the digital age has had a profound impact on the nature, volume and variety of information resources, such that no single library alone can provide all the resources for effective service delivery. This triggers the need for a fundamental re-think amongst academic librarians to chart the way forward in a technology driven twenty-first century. Anassi and Hussaini (2011:1) note that collaboration and resource sharing is now a global phenomenon that university libraries will ignore at their peril. Zimbabwe is not just no exception, but it is a country with special circumstances. Kaur (2013) cites the exponential growth of literature as a challenge to modern libraries. The author argues that

libraries also contribute to information growth by providing access to e-resources and publishing e-content to satisfy this growing user need.

Information growth, according to several authors, is a catalyst for library consortia growth. Yernagula and Kelka (2011) cite: the information explosion; user need diversity; financial constraints; and impossibility of service maintenance as the major factors leading to the growth of the library consortia in India. Reuters (1996) and Shenk (1997) note that the effects of information overload range across: anxiety, poor decision-making, memory difficulties, confusion, decreased user information quality and quantity, reduced attention span and bad judgment. Katz (2002) argues that the proliferation of print material, between the fifteenth and twenty first centuries led to literacy growth, the mass education movement, and increased use of ICTs. Thus, an information explosion and a growing demand for information have occurred. Information overload is described as a ‘dystopian disaster’, causing congestion and undermining storage capacity and productivity (Gleick, 2011). The information explosion, the emergence of the internet and the development of advanced information storage technologies have forced libraries to seek better strategies to cope with the complexities of a dynamic information landscape. Lyman and Varian (2003) divided information into two categories, namely, flowing information and stored information. The former refers to information transmitted over the airwaves, on the Internet and via the telephone; the latter refers to information printed on paper, film or any other physical media. The author claimed that almost 800 megabytes of stored information are produced per person, per year. This has clearly increased since 2003, and today libraries are seeking better strategies to cope with the complexities of a dynamic and changing information landscape.

Hjørland (2006) noted that the exponential increase of publications of professional journals and books was triggered by the “publish or perish” pressure on academics and researchers. The author interpreted the concept “publish or perish, publish self-archive and flourish” as the underlying cause and consequence of the so-called “Information Explosion”. More recently, Kadiri and Adetoro (2012: 22) noted the need to manage the menacing effects of the information explosion cutting across the social, economic, science and technology, industrial or education sectors. The well-

known social philosopher Kenneth Boulding envisaged the future world as being bewildered by an excess amount of information, requiring complex and sophisticated approaches. He states:

“...as we get older we have fewer marbles, but arrange them in prettier patterns... It is quite easy to visualize a situation, perhaps in 100 years, in which the stock of knowledge will be so large that the whole effort of the knowledge industry will have to be devoted to transmitting it from one generation to the next...” (Boulding (1971:682, 684).

Boulding’s statement implies that library consortia can help academic libraries overcome information overload by developing coordinated systems to ensure efficient and effective library services. Folorunso and Folorunso (2010) argue that it is difficult for academic libraries to satisfy user needs when considering the ever-increasing proliferation of information. Consequently, they have implemented creative approaches to building collaborative collections, facilitating resource sharing and developing shared collections policies and procedures (Booth & O’Briene, 2011).The authors view cooperative collection development as a vital survival strategy to manage declining budgets. It is in this context that the researcher was motivated to examine how the growth of information has stimulated the need for library cooperation, more specifically in Zimbabwe.

As a way of dealing with the growth of information, Katsirikou (2012) recommends that library consortia utilise knowledge management concepts to enhance efficiency and effectiveness to continuously develop and manage staff skills. This can be achieved through inter-institutional cooperation and resource sharing. Library consortium adaptation of a knowledge management model offers immense potential for networking and maximization of scarce resources (Katsirikou, 2012).

Although authors like Katsirikou connect knowledge management concepts with library consortia, in a developing country like Zimbabwe where library consortia focus

on the academic sector and are still in an early stage of growth, the challenge is not just about the growth of information but about access to information for national development. At the same time, as Lee (2005) points out, libraries cannot be divorced from technological and digital changes taking place in order to deal with this challenge. It is critical for libraries to transform into learning organisations to benefit users, and this is another factor in the growth of library consortia.

1.2.2 Libraries as learning organizations

Senge (2006: 3) defined learning organisations as “organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together”. Senge (1990: 120) defines it as “an organisation with an ingrained philosophy for anticipating, reacting and responding to change”.

Libraries are at the epicenter of learning because they afford users the opportunity to access and share ideas for effective participation in all aspects of life. The success of libraries depends on the ability to adapt to rapidly changing environments. S kyrme (2010) traces the evolution of the learning organisation concept to the twentieth century, when it was adapted by formal organisations to achieve sustainable competitive advantage and continuous improvement in an increasingly unpredictable business environment. Giesecke and McNeil (2004: 54) argued that libraries should adapt the learning organization model to design organizations that will be successful in rapidly changing environments. The authors further state that the key elements of a learning organization are: personal mastery, shared vision, group learning, mental models and systems thinking; and these will provide libraries with the tools needed to create flexible and agile organizations. More relevant to this study, Foo (2014) states that academic libraries need to re-invent themselves through continuous learning in order to manage new, expanded and challenging roles in the digital economy. The increase in the number of academic library consortia has, as a result, helped to promote a culture of learning through continuous professional development workshops and symposia across the world.

In the context of developing countries, Jain and Mutula (2008:11) argue that libraries should utilise the ‘learning organisation model’ to cope with the intricacies, ambiguities and instabilities of twenty-first century challenges. They explain that to become learning organisations, libraries and library consortia should be flexible,

adaptable and innovative, embracing a culture of knowledge-sharing, collective learning and collaboration. To ensure viability and survival, the 'learning organization model' is therefore viewed as a potential solution to the challenges that academic libraries face (Hallam, Hiskens & Ong, and 2013: 5). Priti and Mutula (2008:10) note how academic libraries have always been regarded as institutional nerve centres, despite digital challenges and opportunities. If they want to redefine their purpose and enhance their capacities in providing service to communities in the digital era they should become learning organisations (Millar & Hart, 2006). Consequently, it is imperative for academic library consortia to rethink 'learning organisation models' to realize institutional goals in a dynamic and complex information environment.

Library consortia allow libraries to grow as learning organisations, to anticipate, react, and respond to change (Senge, 2006).

Libraries evolved into learning organisations by exploiting Information and Communication Technologies (ICTs) to address time and space problems. Hirshon (1999:126) stated long ago that change management is a critical issue facing libraries as they are compelled to make complex decisions amidst higher operational and financial risk and scarce resources. As learning organizations, academic libraries have increasingly adapted ICTs to deal with information growth and to foster cooperation. In Zimbabwe, as this study will show, the academic library consortia have allowed their member libraries to become learning organisations and to benefit their users by improving access to information through ICTs. A special challenge for Zimbabwe however is how to extend these ICT benefits beyond the academic library sector to deal with national development needs. The general contribution of ICTs to library consortia development and improving global access to information is examined in the next section.

1.2.3 Information and Communication Technologies

An overabundance of information necessitates libraries using the most efficient technologies to manage operations and optimize resource usage. ICT use in libraries is evidenced *inter alia* by 'integrated library systems', library web servers, digital libraries, federated searches, 'institutional repositories', and general communications hardware and software (Asamoah-Hassan, 2012). Mapulanga (2013) states that ICTs are improving the use of specialised and non-specialised search technologies to facilitate federated searches of e-resources.

Deegan and Tanner (2002:19) note that basic technology has always been used cooperatively amongst libraries, but twenty-first century libraries now use advanced information management technologies. For example, web and networks enable library consortia to exploit many possibilities for integrating activities through library software. The author cites an example of the Library of Congress programme initiated at the beginning of the twentieth century. The production of catalogue cards rendered the library the centralized cataloguing agency for thousands of American libraries. During the second half of the twentieth century the Online Computer Library of Congress (OCLC) introduced an online shared cataloguing system, which is currently available to more than seventy six countries and territories throughout the world. Webstar (2006) argues that the intrinsic capabilities of networked technology have presented libraries with numerous opportunities to enhance their services. For example, Integrated Library Systems (ILS) continues to be a critical part of library consortium activity with regard to resource sharing.

Galyani, Moghaddam and Talawar (2009) affirmed Bedi and Sharma's (2007) assertion that ICTs have made library consortia a necessity because of the knowledge explosion and financial constraints affecting Europe and the United States of America. Ojedoku and Lumande (2005) note that in the current ICT-driven dispensation, libraries are drifting away from owning specific physical information items in a local collection to providing access to many information sources. The authors argue that the shift from ownership to access is a factor that has stimulated consortia building. The use of ICT-based library systems has also become a common feature of academic libraries in Zimbabwe. For example, the use of

integrated library systems or library ecosystems, such as Innopac Millennium, Heritage, and the application of software packages for institutional repositories, such as DSpace and Greenstone.

Kadiro and Adetero (2012) state that the emergence of ICTs enabled libraries to overcome the information deluge by providing better means to manage the large volumes of available information. Libraries are now utilising modern technologies to implement routine library functions, such as for example, selection, ordering, processing, preservation, packaging and dissemination. ICT use has liberated information managers from tedious and repetitive technical tasks, such as manual acquisitions, circulation, cataloguing and indexing, enabling them to concentrate on higher conceptual skills at a strategic level. Modern ICTs are also useful to users with regard to accessing library resources online. Integrated library systems are helpful because they are designed to perform the business and technical functions of a library, such as acquisitions, cataloguing, circulation, and public access (Reitz 2004). Libraries are utilizing technology to provide services to users because the quality of library services is evaluated for the support they provide to users.

The library is no longer 'simply' a physical space but is also digital, hence the need for libraries to embrace modern ICTs. Taha (2010:293) concurs with Ojedoku and Lumande (2005) by emphasizing how escalating ICTs developments have spurred academic libraries to graduate from their traditional roles as storehouses of printed materials to vigorous disseminators of scholarly information. The author cites the emergence of descriptive standards (metadata, Machine Readable Catalogue 21, Resource Description and Access, & Functional requirements for Bibliographic Records) and the ubiquity of web-based applications as evidence of ICTs' impact on libraries. Developments in ICTs and shifts to electronic publishing have led librarians to rethink the traditional structuring of an academic library. For example, academic libraries are venturing into publishing via open-access research repositories as a response to changes in scholarly communication patterns (Coetsee & Weiner, 2013). The dynamic and complex demands of library users can only be effectively met through effective utilisation of appropriate technologies. Quite clearly, all this

evidence shows how the development of ICT has contributed to cooperation as well as making it possible. The result in many countries, including Zimbabwe, has been the emergence of library consortia – albeit primarily in the academic library sector, which has traditionally been the strongest and where user demands are specialized.

1.2.4 Demands of users

Sanville (1999: 47) argues that conventional practices of journal acquisition are grounded in the legacy of a print-bound world in which each library is an island of access for its own users. Electronic delivery of information and the increased ease of access allow far wider information use than was previously possible. The role of the librarian is changing from that of an information locator to an information evaluator, as evidenced by information/digital literacy programmes amongst consortia members of academic libraries. ICTs have transformed the expectations and demands of library users. For example, the use of Web-based electronic resources is providing users with alternative sources of current information. Academic libraries are starting to acknowledge that the new technologies reside in an increasingly competitive and user-driven marketplace and that they should react accordingly. One response is the adoption by libraries of a more user-centric rather than collections-centric orientation. It is important to note that users now expect electronic delivery of full text information that is speedy and accessible, irrespective of distance and time (Hiremath, 2001:80). Electronic resources have gained greater popularity amongst users because of ease of use and access irrespective of time and distance.

Foo *et.al.* (2002) state that the vision and mission of academic libraries are changing as they now take on the key role of providing the ‘competitive advantage’ for the parent university for the benefit of staff and students. The authors state that academic libraries are positioning themselves to become teaching, learning and research centres in Higher Education. As such, they have to constantly interrogate themselves with regard to the value they add to student learning outcomes. Modern technologies are benefiting library users through enabling them to access digital

scholarship, for example, databases, multimedia resources, online catalogues, e-journals, digital repositories and other online services (Lukasiewicz, 2007).

Digital Information, Electronic Document Delivery, Library Consortia and Web-based operations have helped to enhance library services. Foo *et.al.* (2002) view the need for Information Literacy (IL) competency for users as a direct result of the Web revolution, where a phenomenal amount of information of varying quality is being continuously generated. Hardesty (2000) and Bainton (2001) noted some time ago that the Web Revolution would create a need for guidance in the selection, use and evaluation of information, thus elevating the roles of academic librarians to 'best-use guides' for faculty, students and other users. Such changes imply that library professionals are assuming a stronger pedagogical role and strengthening a partnership with users in the educational tasks of academic institutions. In Zimbabwe, these benefits are felt primarily in the academic sector and in response to the user demands of this sector, preventing the large majority of ordinary Zimbabweans from enjoying the kinds of access to information that ICTs and library professionals can offer. It should be noted at the same time that user needs can only be effectively met at a cost, and this factor is another key driver in the development of library consortia.

1.2.5 Increasing Costs

Vasishta, Kaur and Dhingra (2012) state that the library consortia approach can be attributed the need to share resources to cope with financial constraints. Ever-increasing subscription costs have forced libraries to seek alternatives to survive. The world-wide development of library consortia is a response to the economic challenges confronting libraries in the twenty-first century. In the physical library environment, most user needs can only be met by having the material on the shelf, whereas the new ICT-dispensation materials can be accessed online, or on virtual platforms. The latter has introduced a new model based on group purchases and cooperative acquisitions. Sanville (1999:50) stated that the first and fundamental rule

is that, the need for and use of information is highly elastic as access is improved with the rapid advances in technology. The second new rule is however, that economics of group purchases are far greater than the individual library as a single economic entity. The third rule is that libraries must focus on information expansion and cost effectiveness. Vendor and publisher pricing practices for individual libraries, combined with the evolution of ICTs have been converted to electronic media to allow for only a modest expansion in information resources. This is based on the principle 'a small spending in increment is needed to achieve group wise access' (Sanvile, 1999: 48).

Folorunso and Folorunso (2010:43-44) noted how the information explosion has become cumbersome for institutions in meeting the information needs of students and staff, hence the need for cost-saving consortia. Library consortia should be understood from a socio-economic perspective because they are managed as businesses. Hiremath (2001:87) views a library consortium as a business, characterized by haggling, negotiation and communication, - "an international agreement business or banking agreement or combination of both". Ngozi (2010:82) elaborates that despite socio-economic challenges undermining the drive to create and develop library consortia in Africa, there are numerous benefits in joining library consortia. Examples are the sharing of ideas, discounts, and economic access to vast arrays of electronic resources. Davis (2007) posits that in the globalised world, communication networks and consortia are essential to accomplish cost-effectiveness through bridging and digitizing libraries at all levels.

All these arguments above are relevant to the future growth of library consortia in Zimbabwe, as well as to the country's envisioned national development path. If the already-powerful sectors only are geared to take advantage of recent ICT developments and other changes, then it will not only exacerbate information inequalities but miss an opportunity to connect library consortia and libraries more generally to the country's vision for national development. On the other hand, access to information can be improved for all Zimbabweans if the opportunity is grasped to extend the benefits of existing library consortia as widely as possible. But the

challenge is how the existing library consortia can be harnessed to the national development agenda.

1.3 Library Consortia in Zimbabwe and national development

The development of the Zimbabwe University Library Consortium (ZULC) and the College and Research Library Consortium (CARLC) is a response to economic challenges pertaining to resource sharing and to improving the quality of academic library services. Collectively, Universities, Polytechnics and Colleges in Zimbabwe belong to the Zimbabwe University Library Consortium (ZULC) and the College and Research Library Consortium (CARLC). While ZULC has developed into a full-fledged consortium subscribing to e-resources, the same cannot yet be said about CARLC, which has to grapple with the complexities of the digital era. In other words, these consortia also need to cooperate with each other to fight increasing costs. But then again, such cooperation still excludes all the country's non-academic libraries and their users. The overall development path of library consortia in Zimbabwe can however be better envisioned when correlated with the country's national development agenda.

Zimbabwe's development agenda has been driven by the desire to correct socio-economic imbalances emanating from Company rule (British South African Company) in 1890, and the Rhodesia Front's UDI (Unilateral Declaration of independence) from 1965 to 1979. The country therefore embarked on several development programmes. These include the Transitional National Development Plan (1981), the First Five Year and Second Five Year Development Plans (1982-1990), the Economic Structural Adjustment Programme (ESAP), the Zimbabwe Programme for Economic and Social Transformation (ZIMPREST), the Short Term Economic Recovery Programme (STERP 1 & 2), the National Economic Reform Programme (NERP) (2003), the Millennium Economic Recovery Programme (MERP), and the current Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMAsset), from 2013 to 2018 (Matutu, 2014). National development is anchored on a trajectory for long-term development known as Vision 2020:

'Zimbabwe's vision is to be a united, strong, democratic, prosperous and egalitarian nation with a high quality of life for all Zimbabweans by the year 2020' (Zimbabwe Vision 2020, 2014).

ZIMAsset, as an economic blue-print, was developed through consultations between the ruling ZANU (PF), the private sector, and other stakeholders. The programme was developed as a sanction-busting strategy, as evidenced by the document's thrust of full exploitation and value addition to the country's abundant resources. It consists of four main and two sub-clusters, namely:

- food security and nutrition;
- social services and poverty eradication;
- infrastructure and utilities;
- value addition and beneficiation;
- Fiscal Reform Measures and Public Administration; and
- Governance and Performance Management.

Zimbabwe is a member of the United Nations and the African Union, and has embraced the Millennium Development Goals (MDGs) (2000-2015), and the Sustainable Development Goals (SDGs) (2016-2030), as well as Agenda 2063. Agenda 2063 is a vision and action plan that aims to reposition the continent as a socially, economically and politically competitive global power house. This initiative was necessitated by the need to exploit the opportunities emanating from globalisation, the proliferation of ICTs, successes in regional integration, and the NEPAD experiences.

The success of Zimbabwe's Vision 2020 and ZIMASSET and its contribution to the United Nations' SDGs, and Agenda 2063 will depend on access to information, as well as the political will and the commitment of Zimbabwean citizens. Yet, the value

of information for development and the role of access to information are conspicuously absent in its vision and national agenda statements, or they may be simplistically implied as strategic drivers. This is clearly not good enough when for example Vision 2020 emphasises ideas such as ‘democratic’, ‘egalitarian’, and ‘all Zimbabweans’ that imply basic access to information as the most fundamental requirement for democracy and development. These flaws are not untypical in the vision statements and development agendas for other countries and international organizations. But in the case of Zimbabwe, with its special historical and economic circumstances, it is vital that all potential development partners become involved as role players in the country’s chosen development path.

This study will investigate the potential developmental role of a nationally coordinated library consortium to promote the achievement of Zimbabwe’s national development goals, as captured in its key statements such as Vision 2020 and ZIMASSET. The focus is not however so much on the specific elements of these development programmes, but on the way in which the country’s library consortia need to transform its development path in order to support the country’s national development agenda and programmes. More specifically, this study will propose a model that will accelerate and guide the growth of its library consortia to facilitate this developmental role.

The discussion of how Zimbabwe’s library consortia can become effective development partners emerged at the 49th ZIMLA General conference, held from 23 to 25 June 2015 (ZIMLA, 2015; see 3.4 for a fuller discussion). This was followed up by an advocacy workshop from 5 to 6 May 2016 to discuss how ZIMLA and libraries throughout the country could best contribute to the attainment of ZIMASSET through the provision of Access to Information for All (ZIMLA, 2016). There are also other developing countries that have dealt with the national significance of library consortia (Moghaddam & Talawar, 2009; Satija, 2009). But there are not many sources that integrate library consortia into the national development plans of developing countries, or that investigate how this can be done. It appears from the development and models of library consortia elsewhere in the world as well as in

Africa, and particularly in Southern Africa, that Zimbabwe can learn many lessons from their successes and challenges in order to construct a suitable model for this purpose. This study is however a more comprehensive investigation that commenced several years ago.

1.4 Research questions

Against this background, the researcher formulated the following questions:

1.4.1 Main Research Question

What lessons can Zimbabwe learn from the successes and challenges of library consortia in Southern Africa and elsewhere to construct a model that will support the country's national development agenda?

1.4.2 Subsidiary Research Questions

- How have academic library consortia changed the provision of academic library services?
- What are the significant developments in the history of library consortia in Zimbabwe?
- What have been the successes and challenges of library consortia in other countries and in the Southern African region?
- What have been the successes and challenges of consortia in Zimbabwe?
- How can the lessons learned from consortia in other countries and in the Southern African region be integrated into a model to support Zimbabwe's national development agenda?

1.5 Benefits of the study

The benefits of this study are that it will:

- Produce an original and innovative library consortia model for Zimbabwe;
- List and compare the successes and challenges of library consortia in several African countries;
- Generate knowledge to assist policy makers with regard to the development of library consortia in Zimbabwe;
- Identify the main lessons that could be used for connecting library consortia with national development agendas in other developing countries; and
- Propose strategies for implementing this model in Zimbabwe.

1.6 Limitations of the study

The following are the limitations of this study:

- The findings of this study will not be easily transferable because of differences of historical and political contexts, but may be helpful to other developing countries;
- The study does not investigate the feasibility and challenges of implementing the proposed model;
- The use of focus group interviews required approval from authorities, and their absence in this study is an unfortunate limitation; and
- The Bureaucracy and the Official Secrets Act prevented respondents in some institutions from divulging official information considered essential to this study.

1.7 Research Methodology

The researcher will use a mixed-method approach, and an attempt will be made to balance the quantitative and qualitative aspects. The main components of the research methodology will include research sites, targets groups, sampling, data collection instruments, pre-testing, validity and reliability, data analysis procedures and ethical considerations. An overview of some components is presented here, but a fuller treatment of the methodology is provided in Chapter 4.

1.8 Research sites

The research sites will comprise ten participating institutions subscribing to ZULC and five from CARLC. These institutions are located in the ten provinces of Zimbabwe, as listed in Table 1.

Table 1.1: Research sites location

| Universities | Province | Polytechnics, Colleges and others | Province |
|---|-----------------------|--|---------------------|
| University of Zimbabwe | Harare Metropolitan | Harare Polytechnic | Harare Metropolitan |
| National University of Science and Technology | Bulawayo Metropolitan | Kwekwe Polytechnic | Midlands |
| Africa University | Manicaland | Mutare Polytechnic | Manicaland |
| Midlands State University | Midlands | Seke Teachers College | Harare |
| Great Zimbabwe University | Masvingo | Belvedere Technical Teachers College | Harare Metropolitan |
| Harare Institute of Technology | Harare | | |

| | | | |
|----------------------------|--------|--|--|
| Women University of Africa | Harare | | |
| Catholic University | Harare | | |

1.9 Target Groups

The target groups are Head Librarians, Sub Librarians and Chairpersons:

- Senior Library Assistant, Assistant Librarian and Deputy Librarian from ZULC;
- Assistant Librarian and Senior Library Assistant from CARLC institutions; and
- Head Librarians from ZULC libraries and from CARLC libraries.

The reasons for choosing the above-mentioned will be clarified in Chapter 4.

The study will be using the following data-collection techniques:

- Questionnaires;
- Interviews;
- Observation; and
- Documentary Analysis.

1.10 Literature review and documentary analysis

The researcher will conduct an extensive review and analysis of the literature on library consortia in selected countries, including Zimbabwe. The main information sources for this study will be derived from monographs, journal articles and online journals. The researcher will also consult policy documents, annual reports, brochures, minutes and constitutions of the Zimbabwe University Library Consortium

(ZULC) and the College and Research library consortium (CARLC), as well as documents relating to library consortia in other countries. The literature review will provide the researcher with a framework to evaluate library consortia models and guidelines for the design of questionnaires and interview schedules.

1.11 Questionnaires

The researcher will administer questionnaires to samples of selected librarians from ZULC and CARLC. Questionnaire data will cover:

- Name of institution;
- Rank or position of participants;
- Highest Qualification;
- Library consortia impact on academic libraries;
- Models of library consortium;
- Suggestions on strengthening library consortia;
- Continuous Professional Development; and
- Resource sharing amongst library consortium members;
- Library consortia and national development.

1.12 Interviews

The researcher will interview Head Librarians from ZULC and CARLC. Semi-structured interviews will provide the researcher with an opportunity to seek clarification from policy makers on operational issues that will emanate from the administration of the questionnaire.

1.13 Definitions of the key terms used in the study

The following key terms will be central to the investigation:

- **Collaboration:** A process “...requiring the actual commitment and investment of resources based on a shared vision to create a new community and to enhance competitive survival...” in a period of rapid transformational change (Hawkins, 2000: 7).
- **Consortia** refer to an alliance of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objective of participating in a common activity or pooling their resources for achieving a common goal (Rao & Singh, 2008:140.)
- **Consortial discounts** refer to a reduction in the annual subscription price of an electronic information resource for libraries that subscribe as a group, often calculated on a sliding scale, with the percentage discount proportional to the number of libraries in the consortium, with eligibility determined by a fixed minimum number (Deb, 2015: 33-34).
- **Consortial license** refers to a licensing agreement for an electronic information resource in which the licensee is a cluster of libraries, instead of a single library or library system (Deb, 2015: 33-34).
- **Consortium** refers to an undertaking or agreement, common platform other goal, aiming to minimise costs per unit through or group (as of companies) formed to undertake formation of purchasing consortia. (Singh & Rao, 2008: 141)

- **Digital Library** refers to a managed collection of information with associated services stored in digital format and accessible over a network. It consist of digital contents, interconnections, and software meant to enable continuous access to digital content (Seadle & Greifeneder, 2007:169).
- **Digital scholarships:** Web-based resources and use of the use of web – technologies to support the various aspects of academic practice, for example, research, and teaching. Examples are research, learning and teaching, community engagement, continuous professional development, networking and collaboration. A working library, existence on a continuum between conventional and digital libraries, where electronic and print resources co-exist (Pearce *et. al.* 2012: 33-34).
- **E-book.** A book available in an electronic form (Hawkins, 2000: 14)
- **Library Consortium:** An association of independent libraries and/or library systems established by formal agreement, usually for the purpose of resource sharing. Membership may be restricted to a specific geographic region, type of library or subject specialization. (Mark,2007:1-.2).
- **Library Cooperation:** These are transactions or arrangements between/among bodies with an element of goodwill and mutual interest to ensure optimum use of library and information resources. The main objective of library cooperation is to maximize the availability of and access to information and services at a minimum cost (Mannan & Bose, 1998: 65-67).
- **Library Network:** A network or cconglomeration of two or more organisations engaged in a common pattern of information exchange through telecommunications. A network also includes two or more organizations engaged in the exchange of information through common communication channels, usually for the purpose of accomplishing shared objectives, for example a library network (Jebaraj & Devadoss,2005: 29).
- **Resource Sharing:** Reciprocity among members of a group, implying a partnership whereby each member has something to contribute to others

and which each is willing and able to make available when needed (Rahman, Nahar & Akhter, 2006: 370).

1.14 Overview of Chapters

The chapters are summarized below.

1.14.1 Chapter One: Introduction

This chapter will introduce the topic, provide study background and explore other sub-themes, namely, knowledge management, knowledge economies, and libraries as learning organisations. The background of the study will put the research into its historical and intellectual contexts. It will also explore library consortia in the context of Zimbabwe. Research questions, benefits of the study, justification of the study, limitations of the study, overview of the Research Methodology and definition of terms will also be explained briefly by the researcher.

1.14.2 Chapter 2: Goals, characteristics and models of Library Consortia

This Chapter will explore the available literature relating to the characteristics and models of library consortia. The researcher will explore the existing literature relating to consortia goals and mission; interlibrary cooperation and resource sharing; growth of library consortia; consortia models-resources and library consortia; consortia based subscriptions; and other approaches to library consortia. The chapter will link the study to the large corpus of knowledge relating to characteristics of library consortia and models. It will situate the study within broader theoretical framework. It will illustrate how the study will build on the existing literature relating to library consortia models.

1.14.3 Chapter 3: Development of library consortia in selected countries

This Chapter will examine library consortia developments in other countries. The researcher will explore library consortia development in the United States of America, Australia, United Kingdom, the Philippines, United Arab Emirates, India, Nigeria, Ghana, South Africa, Kenya and Malawi and Zimbabwe. The Chapter will also highlight the contributions of international organisations, such as Eifl and International Network for the availability of Serial Publications (), to library consortia development in Africa. The researcher will also examine the developments leading to the growth of library consortia in Zimbabwe.

1.14.4 Libraries and library consortia development in Zimbabwe

This Chapter will examine the development of libraries and library consortia in Zimbabwe, namely ZULC and CARLC. The Chapter will investigate the background and challenges that the two consortia are facing and how they compare with those in South Africa. Furthermore, the Chapter will analyse development theories, Vision 2020, ZIMASSET and National development in Zimbabwe as contexts for the study.

1.14.5 Chapter 5: Research Methodology

This chapter will highlight the research approach from which the research methodology and design will be derived. It will explore the phenomenological approach as a by-product of the interpretive approach. The chapter will justify the research methodology and the data collection to tools, namely, questionnaires, and interviews. The weaknesses and strengths of data collection instruments will be explained. It will also highlight how field work will be conducted.

1.14.6 Chapter 6: Data Analysis and Interpretation

This Chapter will highlight how qualitative and quantitative data will be analyzed. It will also explore the research findings. The Chapter will highlight the qualitative and quantitative strategies to be employed to analyse and interpret research data. It will relate responses from data collection tools to the research questions when carrying out the analysis. Data analysis will be guided by the research questions.

1.14.7 Chapter Six: Successes and challenges of library consortia in Africa and other parts of the world

The Chapter will analyse successes and challenges of library consortia in Africa and other parts of the world in order to generate knowledge to develop a model for Zimbabwe.

1.14.8 Chapter 7: Model for library consortia in Zimbabwe

This chapter presents a proposed model for the development of library consortia in Zimbabwe. The model is based on the research data generated in Chapter 5. It will provide guidelines for developing library consortia in Zimbabwe.

1.14.9 Chapter 8: Findings, Recommendations, and Conclusions

The Chapter will present research findings, provide recommendations, suggest areas for further study and list the conclusions. In addition, areas for further studies will be suggested

1.15 Summary

This chapter introduced and presented the context of the study, and the justification for its necessity. The chapter outlined the emergence of library consortia, the factors for their growth, and their potential role in national development agendas. The chapter also presented the research questions, benefits and limitations of the study, research methodology, definitions of key terms used in the study, and an overview of the chapters. The next chapter will examine characteristics and library consortia

models. It will be based on a literature review relating to the characteristics and models of library consortia.

2 CHAPTER TWO: GOALS, CHARACTERISTICS, AND MODELS OF LIBRARY CONSORTIA

2.1 Introduction

The twenty-first century has seen libraries evolving new strategies to overcome numerous challenges, for example, underfunding and increasing costs of library resources. The development of several models of library consortia in different parts of the world is a direct response to the need to overcome challenges with regards to viability in providing for complex user needs. A number of regional consortia have emerged in recent years collaborating in sharing resources and attempting to overcome the legacy of a skewed and fragmented system of Higher Education (Reddy, 2012). Nfila and Darko-Ampen (2002) state that cooperation amongst academic libraries can be traced to the nineteenth century when Melvil Dewey wrote on the subject in 1886. Globally, the necessity for library cooperation has been advocated by academic libraries for the benefit of users. It is important for libraries to collaborate to share resources, but understanding the complex nature of library consortia models is equally important to ensure that the right decisions for the benefit of users will be made. Technical, social, economic and political challenges emanating from inter-library cooperation can be overcome if due consideration is given to the characteristics and choice of an appropriate model to adopt to improve resource sharing.

This Chapter will discuss goals, characteristics and models of library consortia. The Chapter will examine different types of library consortia models, for example, models according to Function, Networked Resource sharing models, and models according to organizational structure. This chapter concludes with an overview of the strengths and weaknesses of various models.

2.2 Library Co-operation

Inter-organisational cooperation provides the context for library cooperation and library consortia. Katsirikou (2002:338) defines inter-organizational systems as networks of company systems that permit institutions to share information and interact electronically irrespective of time and space barriers. These can be classified as either electronic markets or electronic hierarchies. Malone, Yates, and Benjamin, (1987) distinguish between electronic hierarchies that refer to systems relying on organisational relationships and electronic markets that match buyers on the basis of price. Inter-organizational Systems (IOS) are Information Systems that are shared by two or more organizations to acquire, and share information. Such systems facilitate the inter-change of products, services and information and also serve to buttress cooperation amongst members of library consortia.

Wolf and Bloss (2000) state that the history of cooperation can be traced to the nineteenth century as reflected by cooperation between American and European higher education libraries. Cooperation amongst libraries takes many forms depending on purpose or function of library consortia. Academic libraries have over decades developed important forums for cooperation, for example, shared cataloguing, inter-library loan and document delivery, off-site shelving facilities, joint licensing of electronic content, and many similar activities (Neal, 2012). Libraries should move beyond traditional systems to build new approaches to coordinated centers of content and service excellence, mass production operations in libraries, new technology, infrastructures, and new initiatives that can be integrated effectively across institutions (Neal, 2010). ICTs enable library consortia to shift from traditional to a modern mode of operation characterised by the use of integrated library management systems (ILMS) and inter-organisational information systems (IOS).

Lal (2012) states that the primary purpose for establishing a consortium was to share physical resources, but this mode of cooperation has undergone transformation because of the proliferation of e-resources. A number of studies have been conducted to determine Inter-organizational Systems (IOS) adoption based on these

relationships. Nagy (2006) argues that there is a need to conduct research on relationship characteristics such as power, trust, commitment and sustainability among other factors to understand IOS adoption. There are numerous benefits that can be derived from membership of library consortia, as outlined below.

Warkentin, Bapna, and Sugumaran (2001:149) state that such library cooperative networks benefit members through providing opportunities for innovation, an uninterrupted supply of innovative ideas, opportunities for learning and shared costs. Other benefits reported include cost savings, e-content purchases, shared integrated library systems, training, technology solutions, and opportunities for continuous professional development and workplace learning. Despite these benefits, organisations find it difficult to espouse library networks because of the lack of understanding of the benefits that accrue from membership.

The key factors that contribute to the success of inter-library cooperation and realization of the above-mentioned benefits include, funding, commitment, shared goals and vision. Okeaugu and Okeaugu (2008) state that library co-operation has to be based upon four prerequisites, namely: common will, common goals that are simple and convincing for paymasters and organizational structures which help in crossing organizational boundaries as well as existence of an agreeable and efficient agent or agencies. They also highlight the importance of a shared vision and philosophy, objectivity, goal directedness, staff skills attitudes and commitment adaptability and accessibility of network resources to members as critical success factors in the development of the consortium. The authors further note that consortium building involves overcoming challenges with regards to team work or collective workmanship, trust, openness and honesty, adaptability and developing and sustaining mutually beneficial relationships among members. The availability of infrastructure combined with sufficient capacity of staff involved can result in an extremely successful library consortium (Ilesanmi, 2012).

Okeaugu and Okeaugu (2008) concur on the key success factors of a library consortium, and the following points help to illustrate the conditions of successful cooperation:

- cooperation;
- interest in long term benefits;
- Cooperation is a long-term effort;
- Participants must be interested in long-term benefits;
- Participants must accept standardized solutions;
- Decision-making can require plenty time; and
- Participants must be prepared to change the present.

Inter-organisational cooperation amongst academic libraries is better understood in the context of Inter-organizational systems. An Inter-organisational network for libraries is characterised by a high degree interaction and activities, which includes joint projects, partnerships and collaborations.

Cooperation is central to inter-organisational systems because it can make or break partnerships. Line (1997:65) defined cooperation as “transactions or arrangements between bodies that have an element of goodwill and mutuality of interest in order to ensure that library and information resources are used as fully and cost-effectively as possible to provide all citizens (users) with equal access to library information materials and information.” Cooperation is critical for the survival of academic libraries in the knowledge age but its success hinges on the commitment of members to a common cause. Ridley (1995: 5) observes that collaboration should strengthen collective workmanship and inspire member libraries to work toward common goals - “a sense of stewardship ... in which the care of the whole is considered, not just the individual institution. When an issue arises, the first question

should be; what does this mean for the consortium? ... not, what does this mean for my library?”

Successful cooperation is dependent upon a number of factors, for example, inter-organizational trust, common objectives to participate in the group, uniformity of the group members, cooperation of the group members, planning, consistency, focus, and engagement of stakeholders (Bakker, Walker, Harland, and Warrington, 2006). Cooperation among libraries can only succeed if there is a clearly-defined purpose, opportunity to explore alternative means of achieving desired objectives, justification of any means chosen, and potential to produce better results than would be achieved by other means outside cooperation. Library cooperation should be viewed in local and global contexts and planning should consider the interest and aspirations of key stakeholders. The prerequisites to effectiveness in a consortium is dependent upon a shared vision and mission, deep interest to obtain real benefits constant support and commitment authority to take action and take risk, centralised funding and staffing, linkages, healthy licensing, and technology Infrastructure (Jiban & Das, 2002).

The success of library consortia is underpinned by the commitment of members who share and envisage a future based on mutual reciprocity. Molefe (2003) views library cooperation as a series of long-term activities that need proper planning to ensure future sustainability. He states that participants in any cooperative initiative must appreciate the need and advantages of such cooperation and that key stakeholders including participating librarians, parent organisations and primary clients should have a clear perspective of the operations of the cooperation to ensure the success of the partnership. Wolf and Bloss (2000:1) state that “The foundation for cooperative collection development was laid in the early 1800s, with international exchange programmes begun by European universities... The mid-20th century saw the introduction of a number of cooperative collection development programs ...”

This statement confirms that library cooperation is common feature in the history of libraries. Modern libraries are building on foundations of cooperation developed in the nineteenth century. Even though recorded evidence of cooperation relates primarily to European Universities, the trend has now become global and central to the continued survival of libraries everywhere.

The success of cooperative collection development is dependent upon the purchasing powers of the members, expanding resource availability and access to other electronic library services. Library cooperative efforts have stimulated library consortia development as a strategy to provide remote users with licensed access to electronic resources by sharing subscription costs. It is also a means to strengthen the purchasing power of the participating libraries amidst the escalating costs of resources. Peters (2001) views modern library consortia as 'buying clubs' rather than 'innovative clubs'. The author called for a radical shift from buying clubs to innovative hubs characterised by innovation and creativity. A good understanding of the factors that significantly influence the success or failure of a purchasing group can help such groups to flourish and prevent premature endings (Bakker, Walker, Harland, and Warrington., 2006). The development of library consortia from purchasing clubs to innovative hubs is dependent on systems of good governance and the effective utilisation of available resources.

Governance structures are central to the successful operations of a library consortium. The ways in which consortia are governed reflects the variety of membership roles and missions, for example, consortia rely on either full-time or part-time staff. Effective governance emanates from a clearly defined constitutional mandate and cooperation from members, for example, criterion for membership, form of governance and board of directorship among other factors. Governance structures of the library consortium should afford members equal voice since they strengthen membership and foster cooperation (Guzzy, 2010). Furthermore, proper governance structures also promote effective communication amongst members. Sekabembe (2002) state that effective library consortia should have: a constitution or agreement of cooperation, a coordinating body, specific areas of cooperation,

infrastructure, management structure, a strategic plan and monitoring and evaluation systems. Peters (2001) agrees that the success of library consortia is dependent upon the degree of cooperation amongst members, expertise, governance structures, and the availability of resources. Cooperation amongst members of a library consortium stimulates idea sharing and progress for the benefit of all. However, it is critical to continue to generate more knowledge relating to factors that contribute to the success of library consortia.

Alidousti, Nazari, and Abooyee Ardakan, (2008) states that scientific knowledge about the factors that underpin the success of library consortia is important to avoid the waste of resources. Inter-library cooperation can only succeed if the participants are committed to the cause and accept concerted efforts in dealing with the challenges. Library cooperation requires long-term effort, commitment to long-term benefits, and acceptance of standardized solutions to resource sharing challenges (Hakli, 2002). A library consortium should have aims, goals and objectives to direct its activities towards purposeful direction. Furthermore, it is important for library consortia to have support from host or coordinating institutions so that coordination is made easier. Library consortia exist to fulfill certain goals and objectives, as will be highlighted in the next section.

2.3 Consortia goals and objectives

It should be noted that goals and mission statements are central in giving direction to library consortia. Library consortia goals are premised on providing unlimited access to e-resources, organisational restructuring, identifying new services and striving for cost-effective ways to provide service (Guzzy, 2010). The future trajectory of library consortia is dependent upon defined goals, a vision and a mission. Goals, mission, vision and core values are critical elements of an organization strategic plan. Library consortia exist to realise shared goals even though such goals vary depending on types of consortia. Shachaff (2003) states that resource sharing through union catalogues and interlibrary loan agreements are common goals of library consortia.

Electronic resources licensing is one of the important goals to reduce costs (Shachaff, 2003). Library consortia are now subscribing to a number of e-resources because current library operations and services are dependent upon technology.

Consortia goals and objectives are critical for their growth in developing countries. Taole (2009) states that when LELICO was formed in Lesotho in 2003, it aimed to fulfill the following objectives:

- To develop and improve cooperation among members;
- To serve as a coordination institute among member institutions and organisations and agencies;
- To work towards a coordinated policy of technical information growth and development and development of efficient systems, rapid communication among membership, shared resources, cooperative and coordinated purchasing, subscriptions and exploration of other areas of cooperation; and
- To cooperate with other libraries, research institutions and organisations within and outside the country to further the purposes of the consortium.

Thomas and Fourie (2006) explain that even though library consortia may have overlapping objectives, there are also marked differences. The authors highlighted the following as early objectives of library consortia in South Africa:

- Promote formal relations between members to foster collaboration and networking;
- Support optimal access to information for members through regional and national cooperation;
- Promote collection building and resource sharing;

- Provide support for the implementation and management of common library system. Taole and Dick (2009) states that library consortia adopt common library systems to improve the sharing of resources among members. The author evaluated the performance of the INNOPAC library system in Selected Southern African University libraries and concluded that the system is performing well and that it meets most library needs; and
- Improve information literacy skills and to share training resources and expertise.

The importance of library consortia cannot be underestimated considering the dynamics in the global information landscape. Katsikirou (2012) noted that library consortia will become even more important in the future by assisting libraries in implementing and managing the process of change. A library consortium imbued with a deep understanding of how each of its members copes with various issues in the information and knowledge age is better positioned to overcome challenges (Hirshon 1999). Furthermore, the author notes that such a consortium will be able to explore issues objectively, understand and articulate trends as they are emerging, and create standardized methodologies that an individual library can employ and customize at a local level for the benefit of users.

Library consortia exist for a purpose and their existence is also dependent upon environmental factors. It is important that library consortia are guided by achievable goals and this is possible if consideration is given to the main reason why consortia are established. Verzosa (2004) notes that the elemental criteria framed for library consortia should be guided by the following questions:

- What is the consortium's mission and purpose?;
- Is the mission and purpose best met with a formal or informal consortium?;
- Who is the consortium designed to serve: by library type, size or geography?'
- Is there a consortium in place that serves or could be developed to serve that mission or purpose?;

- What resources, financial or other, are needed to support the consortium's mission and progress?; and
- What other consortia have complementary missions and resources which could enhance the consortium's value to members?

These questions are best answered by the library consortium's mission statement. The mission statement provides answers as to the reasons for existence, core values and future direction of library consortia. It is argued that organizations with clearly communicated, widely understood, and a collectively shared mission and vision perform better than those without them (Bart, Walker, Harland, and Warrington, 2001). Library consortia therefore need mission statements with clear goals and objectives that outline the practical aspects of what the consortia will do for the benefit of the users.

2.4 Characteristics of Library Consortia

The characteristics of a library consortium are influenced by membership, commitment, governance structures and the desire to effectively provide for the dynamic information needs of membership. Shachaf (2008) state that the noticeable features of library consortia include: resource sharing without sacrificing the institutional individuality, supporting research, rationalization of expenditure, continuous staff development, provision of advanced library services with an emphasis on access to new e- resources, providing affordable inter-library searching at less cost, and managing uncertainties in legal issues. However, some of the characteristics of library consortia are not noticeable, for example, the interactions and personalities of the members. There are various factors that must be taken into consideration when designing a modern library consortium, for example, interoperability, security, and seamless integration of various information sources.

Interoperability of library resource sharing networks is enabled through the use of appropriate technology. The introduction of ICTs in information management and subsequently internet heightened the critical role of interoperability in enabling

machines and information systems to communicate with one another by sharing and exchanging information, as well as enabling users to have access to a multitude of information systems, encompassing Online Public Access Catalogues and institutional repositories (Chowdhury & Foo, 2012). Standardisation is critical in ensuring interoperability among members of library consortia through the use of standards like Machine Readable Standards 21 (MARC21) and AACR2, which allow library catalogues to be exchange data. Standards enable libraries in a cooperative agreement to perform seamless searches across several distributed resources on different platforms. Interoperability is critical for resource sharing because it determines the extent to which systems, hardware and software are compatible to enable resource sharing among participating members.

Pandian and Karisiddappa (2004) view interoperability is an important factor that facilitates resource discovery in a library consortium environment. The author defines interoperability as a concept that addresses the extent to which different types of computers, networks, operating systems and applications work together effectively to exchange information in a useful and meaningful manner. Wade (1999) viewed the use of the American National Standard Z39.50 as a technological development enabling libraries to link their data and facilitate access to resources. Taylor (2003: 25-30) describes the Z39.50 protocol as a standard support for the searching and retrieval of information across networks, for example, library consortia. The author further states that the protocol is commonly used for information management in libraries, to facilitate complex searches and multiple database searches to be carried out by users in a user-friendly way, where the complexity of search and retrieval is hidden from them. The protocol is meant to serve as a search and retrieval service that is completely independent of the underlying structures of data. It enables searching on remote stems irrespective of the syntax of the system (Chowdhury, 2008). The diagram below explains the operations of Z39.50.

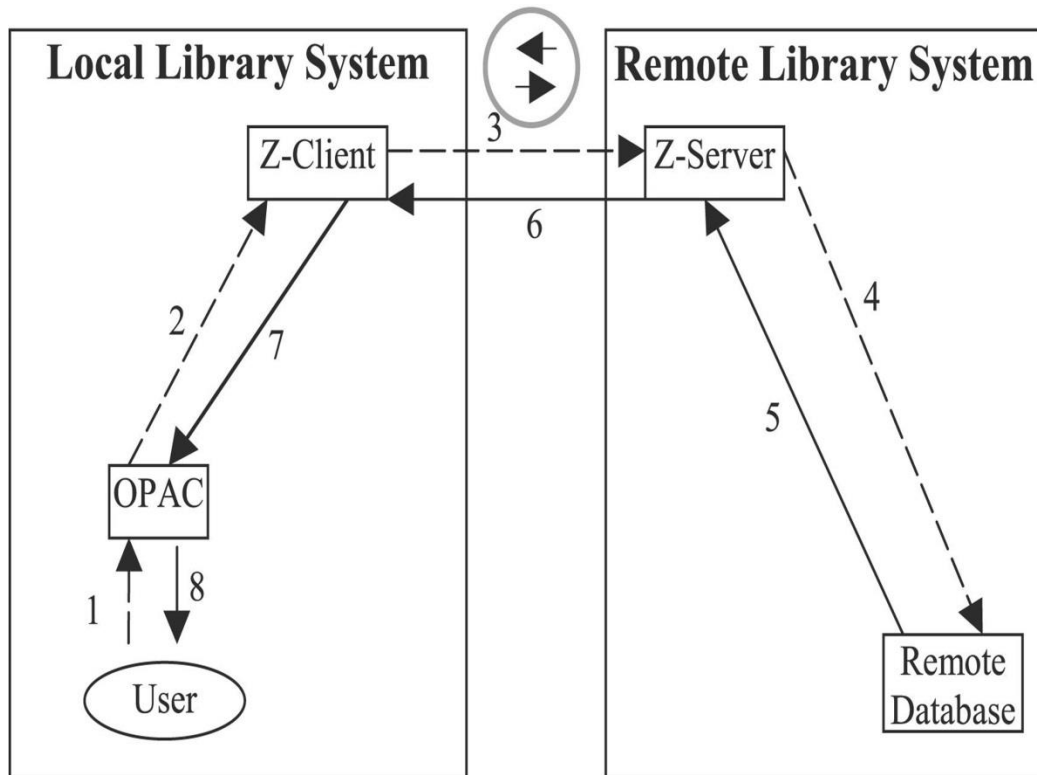


Figure 2.1: Operations of z39.50 (Taylor, 2003:..23)

Modern library technology enables library consortia to provide a single point of access common login and common user-friendly retrieval, direct access to electronic media and a unified request service. Such standard protocol are critical in enabling library consortia members to overcome the problems associated with multiple databases searching such as having to know the unique menus, command language, and search database system that support the standard. Interoperability is a critical factor that library consortia should consider with regards to resource sharing. The use of technology by library consortia is determined by funding and governance.

Hennings (2003) states that library consortia have a wide variation in funding, governance and operations depending on the type of consortium and stage of development. Consortia tend to vary in terms of the types of institutions represented in the membership and the extent to which operations are centralized. Generally, consortia tend to be governed by a Board of Directors, which is also the highest

level of consortium management. Such a board will consist of Directors generally made up of the directors of the member libraries. Sources of funding for library consortia can also vary depending on type of consortia, for example, some are self-funded while others are funded by the state. Dong and Zou (2009) state that the development of library consortia in China was attributed to the provision of government grants to invest in ICT infrastructure. The effective utilisation of the grants led to the development of national information networks to support socio-economic transformation (see 3.6).

Hennings (2003) notes that another determining factor of library consortia funding is the degree of centralization, for example, while some receive funding from a central body, others are funded through subscriptions. Singh and Rao (2008), speaking of the library consortia in India, noted the following:

- Capacity to share resources without sacrificing the individuality of each member;
- Cooperative research and development in application of ICTs enhances services and realizes cost effectiveness;
- Staff development;
- Reducing costs;
- Provision of Interlibrary searching; and
- Facilitate access to e-resources.

Bavakutty and Mohamed (2003) had much earlier already emphasised the provision of access to e-resources as one critical function of library consortia, as highlighted in the next section.

2.5 E-resources and library consortia

In the world of the academia, journals are critical resources for scholars. Mabe (2006) notes how that the number of academic and professional journals has continued to grow every year. For example, by mid-2006 there was an estimated twenty-one thousand peer-reviewed journals that were published worldwide. The ever-increasing output of scholarly journals and articles has created a major challenge for libraries because of their inability to keep up with the ever-increasing amount of published journals.

The basis of the electronic journal is the print journal. Bishop (1984) states that the print scholarly journal could be traced to 1640 when the Academy of Sciences published the first journal as a vehicle to exchange ideas between the learned people in France and London. The growth of science and technology had also an impact on the printed scholarly journal as it changed the nature of scientific discourse. They further state that the print journal was also developed through such standards like the peer review mechanism. Lynch (2009) states that the digitisation of the printed journal was started in the second half of the twentieth century, but anecdotes of the imminent demise of the print journal were exaggerated because in the pure sciences there has been tremendous development towards digitisation, while in the humanities the pace of adapting new technology has been very slow.

Woodward (2000) argues that in the print environment the management of journals was relatively straightforward unlike the current dispensation of e-journals where most publishers sell their entire e-journal portfolio in what is known as the “the Big deal package”. In the print model of journal acquisition, libraries operated as exclusive entities but in the new e-mode of operation there is great need for collaboration. Horton (2013) states that the emergence of Academic “big deal,” high-cost journal packages resulted in the development of niche consortia serving either a specific function (i.e., delivery), filling a limited geographic setting (i.e., metro area libraries), or providing specialized online resources (i.e., medical or legal databases). In the print environment, journal acquisition was relatively easier for academic institutions since they could place orders for individual titles and make cancellations when the cost of collection exceeded the budget. Vashistha (2012) argues that a consortium with the collective strength of resources of various institutions available

to it is better positioned to address and resolve the problems of managing and providing for e-resources services. However, the electronic environment has seen a tremendous rise in the prices of e-journals and also limited room for cancellations.

Universally the digital environments have seen an increase in the activities of the library consortia which can be traced back 130 years (Perry, 2009). The developments in ICTs have made it possible for libraries to come together and acquire enhanced bargaining power with suppliers, provide shared resource services and develop new services. The consortia approach to acquisition gives libraries an added advantage in that they can conduct single negotiation for all members and ensure significant cost savings. The consortia approach provides an opportunity to further negotiate favourable and standard licence terms. An understanding of favourable and standard licence terms is critical for library consortia in negotiating collective licenses for the use of electronic journals and other forms of digital information because consortia sales are fast becoming the predominant means of negotiation in access to electronic scholarly journals.

Rowland (1999) argued that the post twenty-first century marks a turning point as the electronic resources became widely used in academic institutions because of availability and access to modern technology. Electronic resources have affected the functioning of libraries and the information-seeking habit of users (Tenopir, 2005). These authors state that e-journals have become more common because of the integration of computer and electronic resources into research, information practices and e-journal provision. Togia and Tsigilis (2009) also acknowledge the prominence of e-resources in Higher Education Institutions and how such developments require students to have information literacy skills to make effective use of available resources. There are also empirical studies that validate the ascendancy of e-resources, as outlined below.

Morse and Clintworth (1999) carried out a study to compare the patterns of print and electronic journal use in an Academic Health Science Library at the Norris Medical

Library at the University of Southern California and the findings revealed the predominance of electronic usage compared to print usage. It was discovered that during the six-month study period, there were approximately twenty eight thousand (28,000) electronic viewings of full text articles, compared to only one thousand eight hundred (1800) users of the corresponding print volumes.

Sathe, Grady, and Giuse (2002) observe that the reason why the library users preferred electronic journals was because of convenience, or the fact that library users will have noticed the article while browsing the network and the facility to retrieve articles from databases, and the absence of the print version on the library shelf. The researcher noted that electronic journals are useful in that they serve the function of dissemination of information, quality control, canonical archive, and the recognition of authors.

Library consortia are currently collaborating in the building of collections and this requires the willingness to give up some of the autonomy in return for a greater number of unique resources available. Case (2011) states that the drive towards this approach to collection development challenges academic libraries to articulate the value of such a grandiose vision to local faculties and to find ways to mitigate the impact of more materials being accessible to many users irrespective of time and geography. The transition towards so-called 'collective collections' marks a changeover from ownership to resource sharing and cooperation and offers special benefits.

2.6 Benefits of library consortia

Eifl (2013) sums up the benefits of the library consortium as follows:

- 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; and
- Promotes cost effective, customer driven service.

Some of the benefits of being a member of a library consortium are discussed below.

2.6.1 Resource-sharing Benefits

Menzel, Pokorny, Blüthgen, and Schmitt, (2010) defined parabiosis as a particular form of facultative or obligatory symbiosis in which two or more species utilise the same nest and sometimes the same odour trails without abandoning their separate broods. In the context of library cooperation. The term "*parabiosis*" was popularized by the cooperation between Cornell and Columbia University libraries (Neal, 2012). It is important to ensure that resource sharing is reciprocal through each library providing the same level of access to its collections. Continuous changes in the working environment of libraries have increased the need for and the benefits of cooperation, for example, cost savings, and the division of labour between various stakeholders (Hormia-Poutanen, 2006). If members of library consortium are benefiting equally, this helps to strengthen cooperation, longevity and success of the group.

Menzel (2011) argues that an association between two or more organs can bring benefits to either partner or even both at the same time. The author further described parabiosis as reflecting the closest and most absorbing inter- specific associations where two species live together in a common nest. Ollerton (2006) state that "*parabiosis*" can be applied to library consortia building to overcome challenges of the twenty first millennium. Neal (2011) used the term "*parabiosis*" in his analysis of the relationship between Columbia and Cornell University in what is referred to as "**2CUL Project**". This is an example of a successful interlibrary cooperative project for resource sharing. Inter-library cooperation in the twenty-first century involves a transformative process from exclusivity to inclusivity, for example, the 2CUL project

is evidence of the progress made to provide greater content, expertise, and services to respective user communities (Harcourt & LeBlanc, 2014).

Inter-library cooperation is beneficial because the integration of operations, services, collections and resources reduce the cost of overall library activities to direct resources to new priority areas, and increase revenues through joint proposals for funding, new products and services, and business opportunities marketed to academic and research customers (Neal, 2011). This concept is applicable to library consortia considering that most partnership involve two or more libraries. Bailey-Hainer, Beaubien, Posner, and Simpson, (2014.pp 7-12) argued that libraries should engage in partnerships with other libraries to improve service delivery. Such partnerships should be based on mutual reciprocity.

Neal (2011) described the relationship between Cornell and Columbia University as a transformative and enduring partnership based on a broad integration of resources collections, services and expertise. The integration of library resource sharing should result in benefits to all members of the consortia. Neal (2011) viewed the potential and reality of collaboration as a thread weaving through the core responsibilities of academic libraries, for example, selection, acquisition, organisation of knowledge, information storage and retrieval, information dissemination, information interpretation, information literacy, and information archiving.

Resource sharing can be achieved through the formulation of mutual objectives, joint decision making process and continuous improvement (Okeaugu & Okeaugu, 2008). The authors note that the ICTs are forcing libraries to enter into mutually beneficial relationships through collaborative partnerships at local, national, regional and international levels. The authors note that such partnerships are useful in that they help to improve service delivery and reduce the cost of information. They cite examples from the United Kingdom, South Africa and Nigeria where there are successful library consortia.

Bailey-Hainer , Beaubien, , Posner, and Simpson, (2014. pp.7-12.) stated that resource sharing services such as interlibrary loan or document delivery have long provided access to information resources beyond what is available to a local community. The author notes that the distinguishing factor in the rapidly changing landscape is anchored on cooperation. Resource sharing has evolved from a service to request and delivery of multimedia resources not available locally. Participating libraries benefit from accessing multiple formats with workflows connected to acquisitions, collection development, reference and instruction. This implies transformation from an ancillary service to a strategic force both supporting and shaping what resources libraries offer and how they are offered.

The definition of resource sharing amongst libraries has been widened and its goals enhanced, while its mission to connect people and information and the values of reciprocity, responsibility and sharing remain (Bailey-Hainer, Beaubien, Posner, and Simpson, 2014pp. 7-12). Provision of access to e-resource has its complexities, for example, the process of negotiating licenses, funding and sustainability of services. The provision of affordable access to e-resources in Africa through commercial vendors requires librarians with excellent negotiating skills because, negotiations are centered on access and licenses as well as payments and this requires skills and knowledge in the area (Ngwira, 2008).

Bedi and Sharma, (2008) noted that access to resources has become a more important factor than collection building because of the transition from ownership to sharing models. There are therefore clear benefits to be gained from sharing resources.

Apart from sharing resources, Farrow (2011) notes that pooling limited funding to share subscription costs to gain access to a wider variety of e-resources is a another stimulant for consortia development.

2.6.2 Subscription benefits

The use of e-resources is now a common feature of most African libraries. This development was made possible through grants and donations from international donors, such as UNESCO, USAID, and the Carnegie Corporation of New York, and Rockefeller foundations (Mapulanga, 2013). Currently e-resources are also made accessible through open and closed access platforms for example, the PERI project, HINARI, AGRIS, AGORA and Emerald, Francis and Taylor, Surge and EBSCO. Such developments have widened access to e-resources by enabling libraries to subscribe to open access and subscription databases. Maghdam and Tawalar (2010) argue that there are many advantages for libraries if they buy electronic resources through consortia, although there are some disadvantages too. The authors state that library consortia are meant to meet the unique needs of their membership through providing opportunities to expand collections and support cooperative technological development for libraries. Consortia-based subscription to electronic resources through the consortia of libraries permits successful deployment and access to electronic resources at highly discounted rates of subscription. It also helps with the increasing pressures of diminishing budgets, increased user demand and rising costs of journals (Lal, 2012). Consortia-based subscriptions are beneficial to libraries in the following ways:

- A viable solution for increasing access to e- resources across institutions at a lower rate of subscription;
- The Consortium will serve as a single-window service for a large number of universities with diverse research and academic interest;
- The Consortium, with its collective strength of participating institutions, attracts highly discounted rates of subscription with most favourable terms of agreement for a wider range of e-resources;
- Most of the e-publishers have responded positively to the call of the Consortium;

- The consortium provides technical help and arranges for in-house training for optimal usage of resources;
- Users have immediate access to material previously not subscribed to, and at no incremental cost for accessing back files;
- It improves the existing library services and reduces the subscription costs;
- The research productivity of beneficiary institutions improves with increased access to international databases;
- The consortium is offered better terms of agreement for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institutions; and
- Since the subscribed resources is accessible online in electronic format, the beneficiary institutions have less pressure on space requirement for storing and managing print-based library.

The above points show that there are clear subscription benefits that membership to library consortia provides. Such benefits result effective negotiations that will produce joint purchasing agreements aimed at reducing the costs of accessing commercial e-resources, and optimizing resource utilisation in a cost-effective way.

2.6.3 Consortial Purchasing benefits

The purchase of e-resources through library consortia involves negotiations, coordinating member participation, licensing, invoicing and collection of monies from member institutions. Guzzy (2010) states that most consortia in developed countries like the United States of America purchase e-resources as a service to members but do not fund purchasing. Alberico (2002) cite the allocation of more money for acquisition of electronic journals as the greatest challenge facing academic libraries in the digital era. The major services of academic library consortia centre on the

provision of e-resources and leveraging purchasing power for the benefit of members. The primary economic benefit of consortium purchasing lies with the capacity of the members to take their budget further by getting more content with less expenditure. Anglada, and Comellas (2002) states that consortial purchasing will benefit both libraries and publishers. For the former, overcoming budget restrictions, bargaining power through a united voice, ability to save money and guarantee of stable access and perpetual archiving. For the latter, long purchase stability, high turnover and enhanced product visibility. The availability of several purchasing models makes consortia purchasing more appealing.

2.7 Consortia Models

Globally, different library consortia models have emerged as a result of factors such as mission, sources of funding, and participants' affiliation, among others. Hormia-Poutanen, Xenidou-Dervou, Kupryte, Stange, Kuznetsov, and Woodward, (2006) state that there are numerous models in developed countries for consortia. Library consortia progress from one model to another as members strengthen their association through a common agenda and a desire to widen participation in consortia activities. Hirshon (1995:37) grouped library consortia into different categories, depending on the function and structure. The author argues that models are based on different values and objectives, and political realities. It is important to note that models are designed to suit local realities with regards to the needs of users and availability of resources. The following sections will focus on various consortia models.

2.7.1 Models for purchasing e-resources

Electronic resources are increasingly becoming a common feature of collection development in academic libraries. It is critical for library consortium members to have an understanding of how pricing and purchasing model work so that they make right choices which will not disadvantage them when engaging publishers, vendors or aggregators. The Best pricing and purchasing models are those that provide option to negotiate and review prices. There are various models that are used by library consortia to purchase e-resources, for example, volume based models, usage based pricing models, and tiered models (Guzzy, 2010). The author cites the following models;

- Pricing models: Volume based requiring the participation of certain number of institutions or entire group;
- Usage based pricing models: Packages extended to new participants;
- Volume based models;
- Models depends on volumes purchased and consortial discounts; and
- Tiered model: Provision for discount.

Models suggested by other authors include the collaborative purchase model, which refers to the method of dividing the total cost of e-resources across all the members of a consortium (Farrow, 2011). Models tend to be as wide and varied as the consortia themselves. The other cost-sharing model is based primarily on size, but also on type, for example, general public universities, private universities, engineering universities, medical institutions, and agricultural institutions.

Library consortia models according to function range from single function to multiple functions, for example, networked environments support multi-function library consortia (Xu, 2010). Wade (1999:7) states that there are hundreds of library

consortia internationally, all organised around different lines, ranging from informal gatherings of library directors gathering to share ideas to the formal union of libraries for the purpose of sharing resources. Library consortia according to function are meant provide a functional service. Sinclair (1974) is said to have been the pioneer in proposing functional models of collaborative library activities. He proposed the bilateral exchange, pooling, dual service and service centre model. In the bilateral exchange model, two participating libraries will exchange library material, for example, through a reciprocal borrowing arrangement. In the pooling model, two or more libraries contribute and draw from a common pool. The other two are the dual service and service centre models, with the former involving two or more libraries taking advantage of the facilities of one of the participants to develop a common output, for example, Online Public Access Catalogue (OPAC). The latter involves a number of collaborating libraries utilising the services of a facilitating organisation to input and process materials for the individual libraries rather than for a common output, for example, OCLC.

Hennings (2003) posits that some library consortia share information and promote a common platform based on formal or informal operations, either sponsored by a single member institution or owned by all member institutions. Such consortia typify the Networked Consortia Resource sharing model, as explained later on.

Baathuli and Darko-Ampen, (2002) argues that resource sharing has been the trademark of libraries for cooperation, coordination and collaboration between groups of libraries at different levels as reflected by networked library consortia in various parts of the world for example the United States of America, the United Kingdom, China and India. These use ICT-driven networks that enable libraries to share and exchange resources between member libraries at different levels. Taha (2010) noted that cooperation among libraries in the area of resource sharing dates back to antiquity, but acknowledges the impact of ICTs in the recent development of networked “shared subscription”, or “Consortium-based subscription”, facilitating access to e-resources throughout the world.

Sheshadri, Manjunatha, Shivalingaiah, and Radhakrishnan, (2011) state that the Networked Library Consortia model provides libraries with an opportunity to conduct library activities effectively and economically with a united voice in various activities including Inter Library Lending, collaborative development of resources, pooling of journals and economical subscriptions to journals and databases, union catalogue of resources, central place for manpower training and centralized negotiations with vendors. The figure below illustrates the Networked Library Consortia with regards to membership, governance, functions, and shared access.

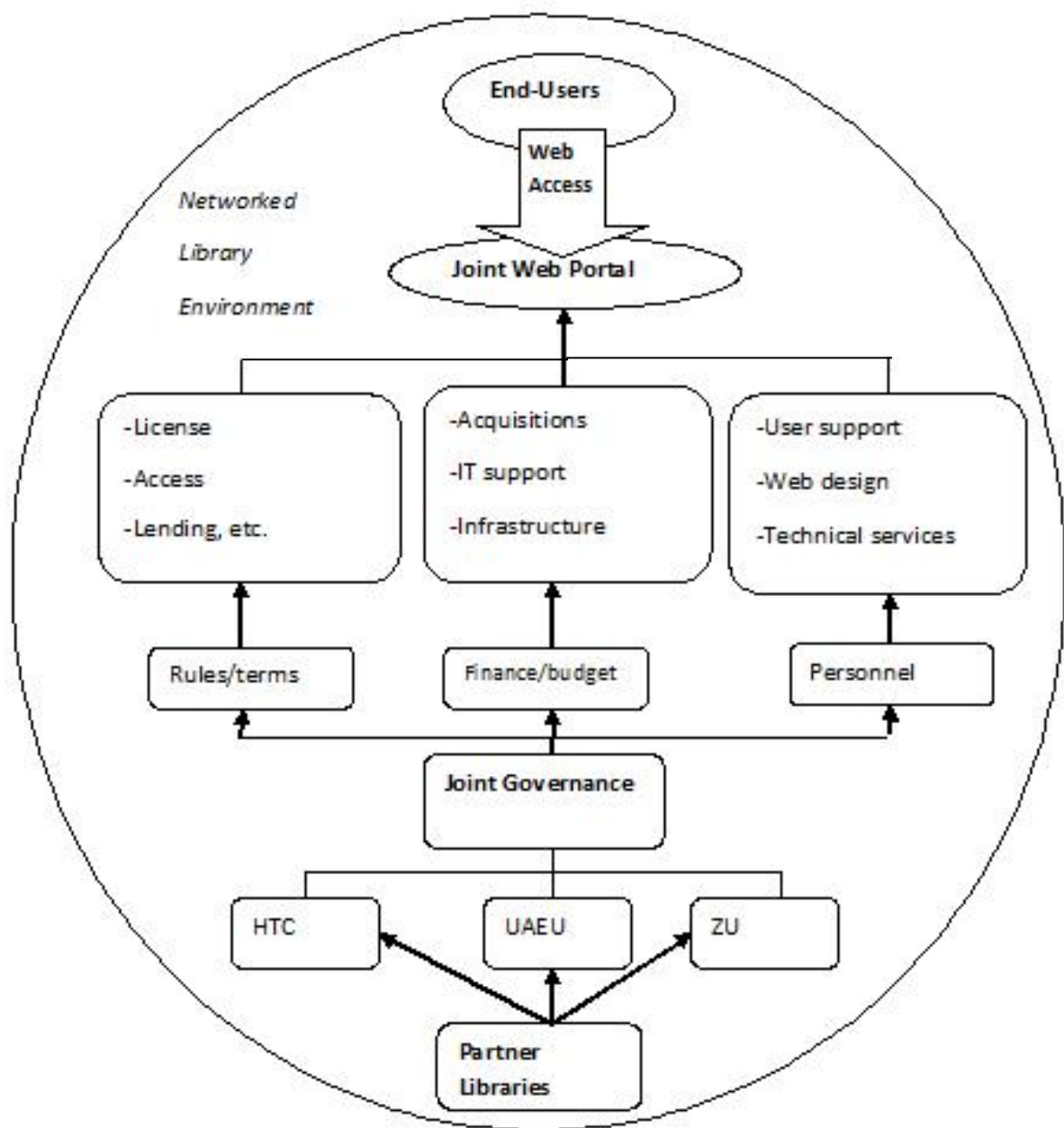


Figure 2.2: Networked library consortia for the United Arab Emirates (UAE)

This model for the United Arab Emirates' academic libraries reflects how partnerships, joint governance and joint web portals benefit the member libraries.

The Networked Library Model is made up of storage facilities for print and e-resources, an integrated resource discovery system, a support system providing any type of assistance required, workstations allowing users to access catalogue, resources, support system, and administrative system (Gorman & Cullen, 2000). The authors state that in such a model individual libraries will create their own collections, create bibliographic data for internal and external resources, and provide their own document delivery services for end-users. This model is not static but metamorphoses into advanced models to accommodate the diversity of user needs and to navigate library information systems.

2.7.2 Models according to Organisational Structure

Kumar (2009) identified five types of organisational Models of the library consortia, namely loosely knit federation, multi-type, multistate network, tightly knit federation, and centrally funded state-wide consortium. He examined libraries in the context of India but the principles are applicable also in a number of ways to developing countries in Africa.

2.7.2.1 Loosely Knit Federation

This model is characterised by voluntary participation of member libraries and does not have central staff or funding. Such a consortium involves regional and local level participation by members and returns are very low. The lack of a central authority prevents group purchasing power. It is more like the open consortia where members

can join and leave. The model can be suitable for stimulating interest in library consortia activities, but not as a permanent feature of library consortia in country like Zimbabwe. This model is not also suitable for many African countries because of the lack of a culture of volunteerism.

2.7.2.2 Multi-Type/Multistate network

This model involves heterogeneous members as determined by the programme, clientele and administrative structure. Dong and Zou (2009) state that multi-type library consortia are usually formed on the basis of a geographical area with the purpose of integrating and sharing information resources. Such models are also cross-region and cross-sector since and they are meant to address regional education and economic needs. This model can benefit Africa if properly implemented since most African countries with the exception of South Africa have exclusive sectoral library consortia. Such consortia are restricted to academic institutions like universities, while other types of libraries are left out. A multitype model can be useful in closing the gap between various library sectors. The multitype model support the integration and sharing of information resources and draws membership from different types of libraries from different geographical areas.

2.7.2.3 Tightly Knit Federation

This consortium model has a sponsoring agency, focussed membership, and dedicated staff. Funding from the parent organisation is usually supplemented by external funding. Such a consortium relies on a sponsoring agency and participating agencies have common interests. This model can be ideal for special libraries belonging to non-governmental or intergovernmental organisations (e.g NGOs and INGOs). Zimbabwe has a large number of such organisations providing library services, and it would be of great benefit to have such a model. Examples of such

organisations include the United Nations (UN), Africa Capacity Building (ACBF), and the Southern African Development Community (SADC).

2.7.2.4 Centrally funded state-wide consortium

This model has a central funding agency that decides on what each member can purchase. The central agency secures contracts and pays substantial parts of the cost. The consortium is solely dependent upon the parent body, for example, INFONET. This model is similar to the National centralised Models (Giordano, 2002: 48 - 49). This is the most popular type of consortium in India where participating members have high common interests and administration is from a central unit. (see Chapter 3.6). Library consortia in any given region are dependent upon a number of factors, especially the objectives to be fulfilled and the needs of users. Europe presents for example different types of library models, which are briefly noted below with comments on their relevance for countries in the Southern African region.

2.7.2.5 Consortia models in Europe

Hormia-Poutanen *et.al.* (2006) state that library consortia models in Europe range from centralized to decentralized and from well-organized to poorly organized.

Giordano (2002: 48 - 49), in an analysis of consortia models in Europe, identified the national centralized model common in Nordic countries, the national decentralized model (France), and Regional models (Spain and Belgium)

- *National centralized model:* This is a model based on the authoritative role of the national library, often within the context of a national or long-term project of electronic resources management, of which the management of electronic licenses is a part. Libraries (academic and non-academic) join the programme through an agreement with the central office (often a department of the national library), and take part in decisions through a structured system of governance, in which each member is represented. This model is ideal because it can secure funding from central government and also prevent duplication of effort. A good example of such a consortium in Africa would be the South African National Library Consortium (SANLiC), which plays a central role in facilitating cost effective access to electronic resources. The model would be appropriate for African countries since they already have national library systems. A national centralised consortium is guided by national strategy and this would be ideal for developing countries striving to build national programmes. It is important to have a vibrant national library system in place to ensure the success of such a model. Such a model could remove inequalities with regards to the availability, accessibility and use of information among education and research institutions through innovative projects (see Chapter 6).
- *National decentralized model:* This model operates in University context where University library administrators play a key role in the policy that generally has a main reference point, and a board nominated by the members of the consortium. The main objective of this type of consortium is to negotiate licenses for e-resources, which are acquired by the different institutions, without central state funding as is the case in Western Europe. This model

would not be ideal for Zimbabwe or smaller African countries that do not have many academic and research institutions equally spread within regions.

- *Regional model:* This model involves cooperation in a regional or interregional context, with a legal basis and administrative autonomy, meant to develop shared library services and technologies. South Africa had a number of regional library consortia, which included the Gauteng and Environs Library Consortium (GAELIC), the Free State Library and Information Consortium (FRELICO), and the Eastern Seaboard Association Libraries (esAL), but their members have now become members of SANLiC. These models are also common in China as evidenced by the Beijing Academic Library Consortium. Such models are therefore relevant to Southern African countries that have geographical provinces and that can benefit from resource sharing. For example, Zimbabwe has ten provinces. Each of these provinces has at least one University, a polytechnic, teachers college and technical vocational centre (see 3.3).

European models of library consortia are potentially useful for Southern Africa because of the pattern of urban and rural development, which is based on centralized, decentralized and regional structures. These models would help to provide for a balanced library service for all areas within a specific country. The next section looks briefly at the suitability of the models described above for Zimbabwe, specifically in respect of the goals of this study.

2.7.3 Consortia models and Zimbabwe

Library consortia models have their merits and demerits, as well as their differences and similarities. Ghosh, Biswas, and Jeevan, (2006) after studying library consortia in India, concluded that each model has its advantages and disadvantages. They noted that there was no single best model for a consortium but recommended

developing eclectic models. The models compared here are potentially suitable for Zimbabwe, but only deeper investigation will reveal the most appropriate candidate.

The loosely-knit model is a local or regional consortium formed at the basic level of any organisation or community (Allen & Hirshon, 1998). Such a model develops from cooperation with regards to inter-library loans (ILL), or reciprocal borrowing and automated library and information services. The loosely-knit model is a foundation for member libraries to strengthen their relationships or partnerships by entering into more complex and innovative activities for the benefit of all participating members. Zimbabwe libraries can draw on this approach expand and extend its existing consortia, as well as extend their benefits to the country's other types of libraries (See Ch 4 for a discussion of library consortia in Zimbabwe).

The loosely knit-federation operates without central staff and central funding. Such a consortium can be very flexible and incurs low overheads and generates a low-level of return. This model does not have a structure, other than an understanding between the members to work together (Andrews, 2007).

This is a traditional model of library consortium characterised by a membership consisting of a minimum of two libraries. Examples of such models include bilateral exchange, pooling, dual service and service-centre models. Bostick (2000) notes how the development of library consortia is deeply rooted in Western traditions with reference to the United States of America (see 3.1). The earliest library consortia were initially developed without recognizable membership levels. However, over time these consortia evolved into formal entities with permanent structures. This library consortium model can be used perhaps as a point of departure basis for Zimbabwe. It is only useful with regards to the development stage, but cannot be sustained considering the socio-economic and political development of the country. This consortium model appears to lack the kind of financial, material, and human resources to sustain its operations. Zimbabwe needs a library consortium model that will provide for a long-lasting and binding association for the benefit of all members,

and that is also geared towards supporting the country's national development agenda.

The multi-type library consortia model differs from the loosely-knit federation in that it receives funding from a central authority, as well as from government and other sources. Examples of the multi-type consortia include the Louisiana Library Network (LOUIS) in the USA, which is self-funded even though it receives grants from government. A multi-type model unites different types of libraries. The other advantage of such a model is that it integrates information resources of all types of libraries. For example, SIRN in China. MALICO in Malawi and KLISC in Kenya. Such models are useful for Zimbabwe because the existing consortia only provide for the needs of academic and research libraries (Ghosh, M., Biswas, & Jeevan, 2006).

Member libraries can benefit from central staff and voluntary cooperation among members. This model caters for members consisting of different types of libraries to achieve a common goal and vision. However, the challenge will be to reconcile the divergent information needs of the different types of libraries. This model can work for Zimbabwe because the two sector-specific consortia can provide direction to other libraries that are left out, and connect them to the goal of supporting the national development agenda. This model usually exists as a legal entity, making it ideal for Zimbabwe where legitimacy and legal status will benefit the purpose of extending the consortium across the country's libraries.

In Europe, Asia, and some parts of Africa, the national centralized library consortia models are quite common. Such consortia are funded from membership, local and central government. This model supports national resource sharing by providing for a kind of one-stop information retrieval resource. The China Academic Library and Information system (CALIS), the Indian National Digital Library in Engineering Sciences and Technology (INDEST), and the South African National Library and Information Consortium (SANLiC) are examples of library consortia with a national

outlook. Centrally funded, state-wide consortia usually have a sponsoring agency and probably a separate source of funds.

National library consortia models go beyond traditional roles such as resource sharing and collaboration for mutual benefit into digital storage, access and preservation, acquisition and sharing e-journals, cooperative processing of information, capacity building, negotiating licenses, negotiations for online access, metadata management, resource sharing networks, Institutional repositories, database licensing, management of electronic thesis and dissertations (ETDs) and courier services. They can address larger matters of national importance given their country-wide presence and their ability to connect with other national and international organisations. Zimbabwe would benefit from a national centralised model of library consortium because it will provide a platform for unifying all libraries irrespective of their level of development and geographical location. Such a model would be most suitable to support national development (see 1.3).

The regional library consortium model can either be national, or regional in character. Some examples are the North West Academic Libraries (NOWAL) which cater for a geographic region. South Africa once had five regional library consortia, namely: the Cape Library Consortium (CALICO), the South Eastern Alliance of Library systems (SEALS), the Eastern Seaboard Association of libraries (Esal), the Gauteng and Environs Library Consortium (GAELIC), and the Free State Library and Information Consortium (FRELICO). Regional library consortia may not be useful for Zimbabwe since libraries are concentrated in the capital cities of the provinces of Harare, Bulawayo, and the Midlands. Such a model would mostly benefit regions that are already resource-endowed, or those with a higher concentration of industry, commerce and education in Zimbabwe.

The single type library consortium model provides for the needs of a specific or unique group of libraries. Zimbabwe already has this type of library consortium with ZULC and CARLC. This model is not ideal for countries like Zimbabwe because

it excludes other libraries, and provides primarily for sector-specific interests. In academic libraries, single type library consortia model are ICT-driven with Wi-Fi, high bandwidth, common integrated library management systems, bibliographic standards, Open data, cloud storage, Metadata –harvesting and Open Access Initiatives (Taole, 2009). The single-type library consortium is not ideal for Zimbabwe because it will result in duplication of effort and a waste of resources. Zimbabwe needs a library consortium model that can accelerate the growth of other types of libraries and that can support the national development trajectory as set out in ZIMASSET (see 1.3). Such a model has the potential to bring together all types of libraries. It would harness the potential of all libraries in the interest of national development.

2.8 Summary

This chapter examined library cooperation, consortia goals and objectives, the characteristics of library consortia, the benefits of library consortia, their growth and development, and a comparative analysis of potentially useful consortia models for Zimbabwe. The chapter included models and examples of library consortia found in both developed and developing countries. The next chapter will present an overview of the historical development of library consortia in some of these countries.

3 CHAPTER THREE: DEVELOPMENT OF LIBRARY CONSORTIA IN SELECTED COUNTRIES

3.1 Introduction

Sheshadri, Shivalingaiah and Manjunatha, (2011) state that globally the number of library consortia existing has grown steadily since the pioneering days in the last decade of the twentieth century. The list of organizations on the International Coalition of Library Consortia's (ICLC) Web site represents international, national, regional, state-wide, as well as other initiatives. O'Neill and Gammon (2009) explored the history of consortia and revealed that collaborative and cooperative efforts in collection development among libraries started hundreds of years ago. The author states that later in the 20th Century, economic, social and technological changes instigated growth of consortia and enabled libraries to work efficiently in a collaborative manner for collection building. Library consortia in different parts of the world are in different stages of development, and their development varies from one country to the other.

While the history of library consortia in Europe can be traced to the twentieth century, in Africa it is the second half of the twentieth century that marks a significant stage (Bostick, 2010). The need for resource sharing and technological innovation in information transferring, without obstacles and with minimum costs, stirred up the need for consortium formation (Dzandza, & Alemna, 2011). This chapter will examine the development of library consortia in selected countries outside and in Africa. The researcher selected these countries because the development of library consortia in one part of the world cannot be viewed in isolation from developments in other parts. The countries that are outside Africa namely, China, the United Kingdom, India, Hungary, Philippines and the United Arab Emirates were included because of historical, technical and educational reasons. China and India now have a strong presence in Zimbabwe's socio-economic development programme, while the United Kingdom has strong historical and economic ties with the Southern

African region. Hungary provides an example of best practices in library consortia development. The United Arab Emirates has unique models of library consortia development for the Higher Education sector and these provide useful lessons for Zimbabwe. Furthermore, the researcher selected countries outside of and in Africa for comparative reasons, and to draw lessons for Zimbabwe from the development of their library consortia.

3.2 Library Consortia in other parts of the world

Library consortia have become a common feature of academic institutions because of their capacity to provide platforms for seeking joint solutions to problems. Library consortia in developed countries play a critical role in supporting learning and teaching and research activities in their countries. Library consortia differ with regards to the services they provide and their systems of governance. For example, some exist as legal entities with proper systems or structures of governance, while others depend on voluntary and informal structures of governance.

3.2.1 China

China has strong bilateral relations with Zimbabwe that dates back to the war of liberation in the 1960s. The researcher also included China because it provides good examples of library consortia initiatives that have contributed to national development. Dong and Zou (2009) traces the development of library consortia in China to the last two decades of the twentieth century. Initial cooperation was confined to academic institutions. Dong and Zou (2009) state that large-scale regional consortia were achieved in the 1990s and that cross-regional consortia and national consortia began to gain popularity after 2000. The authors cite CALIS (China Academic Library and Information System) and the CASHL (China Academic Humanities and Social Sciences Library) as the two most influential and successful academic library consortium projects in China.

Dong and Zou (2009) posit that library consortia in China can be identified by type, namely geographical proximity, and administrative division. Zhang and Gourley (2006) notes that while consortium building often expresses itself in resource sharing, it can also be used to plan for sharing bibliographic and full text databases and other services in each of the libraries that are part of the consortium. It is noted that collaboration and sharing of commitments and facilities between libraries is a logical development especially under the strained financial circumstances in which most libraries operate.

Regional and cross-region consortia are characterised by geographic proximity. These include the Beijing Academic Library consortium, the Tianjin Academic Library information System, and the Guangdong Academic Library Network. These library consortia are involved in:

- Group purchases of local and international databases;
- Cooperative construction of digital structural capital;
- Inter Library Lending and Document Supply; and
- Continuous Professional Development to upgrade the knowledge and skills of members so that they can cope with the rapid changes in technology and proliferation of information.

Other examples include Public Library Consortia and Multitype Library consortia. Cooperation among public libraries is limited to geographical areas (Dong & Zou, 2009). These libraries cooperate at a regional level even though such developments are more prevalent in developed areas as compared to rural or marginalized places. Examples of public library consortia include the China Regional Library Network (CRL, 2008), the Hubei Public Library Consortium, and the Guangdong Province Public Library Automation Network. These consortia undertake bibliographic control, standardisation of bibliographic records, and educating and training staff.

The Multi-type library consortia are involved in cooperative collection development, Inter Library lending, networking, e-resource sharing and digital database construction. An example is the Shanghai Information Resources Network (SIRN). This category consists of academic, public, and school library consortia. Multi-type library consortia allow all types of libraries to share information resources through networking.

CALIS and CASH are also categorised as constituencies of the National Library Consortium.

- CALIS is a national academic library consortium established in 1998 funded primarily by the Chinese government to promote and improve resource sharing among academic libraries, reduce the expenses for participating libraries, and support the development of higher education in China. It developed a Union Cataloguing System and the first Multilanguage web-based cataloguing system (Xiaoxia, and Ling, 2005); and
- CASHL was established in 2003 under the leadership of Chinese Ministry of Education. It aims to cooperatively acquire, preserve and share foreign and Chinese periodical resources in the humanities and social sciences among member libraries, and to provide a unified online portal for users to retrieve and utilize these resources.

The two library consortia have a three-tier structure comprising member libraries and both are involved in e-resource sharing. Dong and Zou (2009) noted that:

- There is a disparity between the city and provinces with regards to the development of library consortia;
- Regional, cross-region, and national consortia are a manifestation of China's drive to modernise its information infrastructure;
- Access to the world's intellectual heritage in digital format has been widened through library consortia initiatives for global collaboration; and

- Library consortia are engaged in resource sharing activities to optimise the usage of information.

Library consortia development in China is supported by the National government through national policies that prioritise library development. Zimbabwe can learn lessons on the role of government in the development of library consortia

3.2.2 United Kingdom

The United Kingdom is Zimbabwe's former colonial power and the two countries have strong diplomatic relations covering socio-economic development, including education and libraries. In the United Kingdom, types of library consortia are regional, discipline-based, and national and are constituted and managed in different ways. Library consortia include traditional types consisting of a defined group of libraries working together to enhance services for users through, for example, procurement of library resources, staff training and development, and reciprocal access agreements. Others can be described as "loose" and they negotiate with suppliers on a national basis, and opt-in to selected deals for the resources they require. Webster (2006) identifies a regional consortium in the United Kingdom as the North West Academic Libraries (NoWAL), a consortium of all the UK Universities and the Colleges of Higher Education libraries in Cheshire, Cumbria, Greater Manchester, Lancashire, and Merseyside in the northwest of England. This consortium is involved in purchasing printed journals and books and electronic resource purchasing, continuous staff development, and workplace learning.

Another regional library consortium is the Consortium of Research Libraries (CURL) whose membership consists of major research libraries, for example, the British Library, Oxford and Cambridge University libraries, the National Libraries of Scotland and Wales, the library of Trinity College Dublin, and twenty-two other university and specialist research libraries (Webster, 2006). The mission of this consortium is to "increase the ability of research libraries to share resources for the benefit of the

local, national and international research community” (see <http://www.curl.ac.uk> CURL, 2017).

Other library consortia in the United Kingdom for example Eduserv Chest serves as a consortium for national purchasing of e-resources for local and international consumption. It acts as an information broker or vendor for purchasing e-resources for research, educational and other libraries at home and outside. The Joint Information Systems Committee (JISC), which is funded by the UK’s Further and Higher Education Funding Councils has a wider remit than just libraries and e-resources and is also responsible for the UK higher and further education computer network JANET (the Joint Academic NETwork), as well as the development of the technological infrastructure to support learning, teaching, and research (Weber, 2005). Another initiative set up by JISC is the NESLI (National Electronic Site License Initiative) to support academic libraries to purchase e-resources. It is a special vehicle to give transition higher education institutions the opportunity to transform from print to e-resources in a cost-effective way. The Greater Manchester Libraries Consortium (GMLC) (2003), provides bibliographical services for the whole of Greater Manchester.

The models of library consortia are similar to those found in other parts of Europe, for example, regional, national and subject-specific models. The development of library consortia models in the United Kingdom has been influenced by similar factors as those found in Australia, and the United States of America. In developed countries, the state plays a critical role in supporting library consortia development. The patterns of development and models of library consortia in developed countries are shaped by the country’s level of economic development and information needs. Similarly, economic factors also affect patterns of library consortia development in developing countries, as will be seen in the sections below.

3.2.3 Hungary

The development of library consortia in Hungary gathered momentum after the collapse of communism in the 1990s (Csajbók & Vasas, 2012). The author states that Hungary's library consortia include those organised around specific vendors, for example, EBSCO and ProQuest, and those supported by the national government. The latter includes orientation towards European Development Fund (FEFA), Electronic Information Services (EISZ), Hungarian Scientific Research Fund (OTKA), and Social Renewal Operative Programme (TAMOP). Csajbók & Vasas, 2012) state that at the time of regime change the government realised that economic expansion could only be possible through human capital development. Libraries benefited from government support in the drive to transform the economy to make Hungary globally competitive. Government funding enabled libraries to develop library subsystems, accessible databases, building information infrastructure, enlarging collections and continuous professional development.

In 2014, Hungarian libraries formed a consortium led by the National Széchényi Library (NSZL). This consortium has been able to embark on the ELDORADO project to provide a novel service model and infrastructure environment in digital library field (Libraries in the Digital Age, 2014). This project aims to broaden access to scholarly communication to support teaching, learning and research. Access to electronic scholarly communication was further boosted by Hungary's membership in the EIFL project in 2009. This project has helped to strengthen the activities of library consortia in contributing towards national development. Partnerships provide an alternative source of funding for library consortia that have always relied on state support (Csajbók & Vasas, 2012:337).

3.2.4 India

Mahajan (2005) states that India has over 400 universities and institutes of national importance and 18,600 colleges that provide higher education in all disciplines, and

that 7.8 million students are enrolled in higher education. Mahajan (2005) describes how Indian universities were struggling to maintain subscriptions to even core journals due to ever-increasing costs of journal subscription. The development of library consortia was viewed as a way to overcome the escalation of the cost of scholarly material, the information explosion and emerging information needs of users. Various advantages of e-resources, such as speed, accessibility, multiple access points, and access to supplement materials (multimedia, etc.) led to adopting e-resources access. India has a strong and accelerating economy as well as the third largest Higher Education (HE) system in the world. Its major investment in recent years appears to be continuing in new institutions, research and development spending, and new consortia.

Goudar (2013) argues that development of library consortia in India was precipitated by the escalating prices of journals, the geometric growth of scholarly publishing and uncertain foreign exchange rates that put already shrinking budgets of Indian libraries in steep decline. This prompted libraries to develop consortia for resource sharing, exchange, cooperative acquisitions and capacity building. Bansode (2007), and Moghaddam and Talawar, (2009) investigated the growth of library consortia in India. The authors traced the development of library consortia to the 1980s when networking of libraries began and consortia were in an embryonic stage. Rigidity of library systems delayed the growth of library networking throughout the country but once libraries started experiencing benefits of networking, they decided to take advantage of new developments by forming a consortium (Vagiswari, Amba, and Louis, 2001)

Chauhan and Mahajan (2013) state that resource sharing has been a key concept of library cooperation in India just like in any other part of the world. They trace the origins of library consortia to the establishment of the Indian National Scientific Documentation Centre (INSDOC) in 1952, which started as a document delivery service (DDS) supporting the libraries of scientific institutions throughout the country. INSDOC merged with the National Institute of Science Communication (NISCOM) to form National Institute of Science Communication and Information Resources

(NISCAIR) in September, 2002. There are also a number of local and regional activities that led to the development of library consortia in India. For example, the agreement of co-operation between the Bhabha Atomic Research Centre (BARC) and the Tata Institute of Fundamental Research (TIFR) in 1995, the proposal for the formation of "STI Network" in 1999 and the J-GATE serving as an electronic aggregator, and electronic archival facility for scientific journals (Arora, 2007).

In an endeavour to support research activities throughout the country and to avoid duplication of activities, the Government of India launched a national information system called the National Information System for Science and Technology (NISSAT) in 1977 (Chauhan & Mahajan, 2013). NISSAT supported and sponsored resource sharing activities by establishing library networks and consortia in India.

India's large number of library consortia reflects the dynamism and complexities of its growing economy. India is a developing country and the development of its library consortia is characterised by adoption of different models depending on subject and function, such as purchasing and geographic location. The various types of library consortia are testimony to the country's endeavour to respond to the dynamic local and global information landscape. Library consortia have been developed to provide for the needs of the world's biggest Higher Education sector and growing commerce and industry. The types of consortia adopted in India are based on various models that evolved in response to participants' affiliations, main funding sources, and level of economic development (Satyanarayana 2004). Southern Africa and Zimbabwe in particular can draw lessons from the strategies used by India to develop its library consortia to underpin national development (See Appendix 5 for list of library consortia in India).

3.2.5 Philippines

Fresnido and Yap (2013) trace academic library consortium development in the Philippines to the 1970s. Evidence of this are two consortia namely, the Academic Libraries Book Acquisition Services Association (ALBASA) in 1973 and the Inter-Institutional Consortium (IIC) now South Manila Inter-Institutional Consortium since 1974. Library cooperative activities are evidenced by the activities of Mendiola Consortium, Ortigas Centre Library Consortium, Inter-Institutional Consortium (IIC) or South Manila Consortium, Intramuros Library Consortium, European Studies Consortium of the Philippines, and the Health Research and Development Information Network (HERDIN) (Jaffar, 2013).

Verzosa (2004) explains that formal library cooperation in the Philippines began in the early 1970s with the establishment of five academic libraries for interlending and catalogue-sharing activities. The Inter-Institutional Consortium was established to meet the following objectives:

- Communications/networking or linkages;
- Cooperative programming;
- Economies of scale;
- Pooled purchasing;
- Funding procurement; and
- Risk sharing;

The twenty-first century saw an increase in the number of library consortia encompassing all types of libraries. Verzosa (2004) noted that many library consortia are still informal and voluntary in nature, borne from institutional linkages of academic libraries within a particular geographical location, and established to engage mainly in interlending activities and bibliographic access. The Philippines Standards for Special Libraries in the Philippines (2013) requires libraries to:

- Engage in proactive local and international collaborative activities to maximise its resources and services, subject to existing policies of institutions and governments' rules and regulations; and
- Participate in consortia and enable resource sharing covered by an agreement and subject to existing policies of the parent institution and publisher.

As a result of these requirements, there are number of library consortia in Philippines providing critical services to libraries. The growth of consortia was necessitated by preferences of development partners with regards to funding and endorsement by the government. The IIC has formal structures such as for example, the Board, standing committee and liaison committees, which coordinate activities and projects for the benefits of members. The main areas of work for the consortium cover resource sharing, faculty administration and staff development and research. The Philippines has developed a cooperative network of libraries for resource sharing to realize economics of scale in the digital era. The member libraries are able to successfully promote inter-library cooperation through book loans and provide access to the resources as well as services to each other.

Library consortia in the Philippines share common objectives with regards to cooperative collection development, coordinated purchasing, inter-library lending, shared cataloguing, cooperative cataloguing and building of online union catalogues or virtual catalogues, sharing of human resources, promotion of professional development, sharing of expertise on library automation, networking, digitization, managing digital information assets, and collective lobbying on national and international issues like pricing, copyright (Fresnido & Yap, 2014). These authors identified the following challenges facing library consortia in Philippines:

- Their critical role in the development of academic libraries to promote professional development and resource sharing;
- Lack of funding to support development of library consortia;

- Varying levels of technological development among consortium member libraries; and
- Lack of congruence between the consortia's objectives and actual undertakings.

Library consortia in the Philippines are characterised by a remarkable range of cooperative activities and consortial arrangements that transcend geographical boundaries, from the simple to the most complex of organizations and informal and voluntary structures (Fresnido & Yap, 2013). Library consortia in the Philippines contrast sharply with those of the developed world with regards to funding and infrastructure, and they are still in an early stage of development. In the developed countries many library consortia are formalised, and developed from a culture of volunteerism to their status as formal legal entities supported by salaried staff. The development of library consortia in Zimbabwe, like those in the Philippines, has been stimulated by increasing demands and high expectations from users, budget cuts, high costs of library materials especially electronic journals, and a rise in the amount of information resources. State support is necessary for these countries to catch up (See Appendix 8 for a list of library consortia in the Philippines).

3.2.6 United Arab Emirates (UAE)

Networked Library Consortia of the United Arab Emirates have provided local libraries with an opportunity to conduct library activities effectively and economically with a united voice in various activities, including: Inter Library Lending, collaborative development of resources, pooling of journals, and subscriptions to journals and databases, union catalogue of resources and a central place for manpower training and centralized negotiations with database vendors (Sheshadr, Shivalingaiah, and Manjunatha, 2011). The consortial academic resource sharing in the United Arab Emirates (UAR) was anchored in the collaboration between Zayed University, United Arab Emirates University and Higher Technology Colleges (HTC). These

institutions share a virtual catalogue that facilitates a variety of circulation activities. It is key tool in resource sharing for libraries irrespective of whether or not they're part of a formal consortium arrangement. This technology has helped to transform resource sharing between libraries, making it faster and more cost-effective than any other method, while exponentially increasing items available to users.

Sheshadri, Shivalingaiah and Manjunatha (2011) identified the networks and consortia based on disciplines, geographical location, sectors and activities. The UAE Health Libraries Consortium (UAEHLC) (2006) is a national level consortium founded in November 2006 to strengthen the relationship between the National Medical Library and the libraries of healthcare institutions affiliated with the UAE's University Faculty of Medicine and Health Sciences.

In the Higher Education sector, the UAE Higher Education Library Consortium (UAEHELCC) serves as a National level consortium consisting of a few participating libraries. The consortium provides its members with timely and efficient access to the collections and resources of all the participating libraries. The consortium has utilised ICTs to develop a shared virtual catalogue that facilitates a variety of circulation activities and seamless access to content.

The Information Literacy Network (ILN) (2005) was established to provide leadership in information literacy, to facilitate the collection development of life-long learning skills, to advocate and promote greater cooperation among libraries in an educational setting, to offer networking and professional development opportunities for librarians and library staff, and to encourage the exchange of ideas, information, and best practices. The government has also invested in the development of sector specific consortia for different types of libraries namely, public, academic and community. These libraries are meant to provide affordable access to e-resources.

Library consortia are still in early stages of development. The Networked library consortia could potentially network all types of libraries and develop a national networked library system. As in the case of India, the main purpose of library consortia is to share e-content and to support teaching, learning and research.

Despite different levels of development, the United Arab Emirates (UAR), India and the Philippines are utilizing ICTs to network several types of libraries to provide seamless access to electronic content. The development of library consortia in Southern Africa is just as varied because of the varying circumstances of the region's countries. The factors that have given rise to library consortia in the regions and countries of Africa will be discussed in the following sections.

3.3 The development of libraries and Library consortia in Africa

The development of libraries and library consortia in Africa are inseparable issues because the former provides the basis for the development of the latter. Libraries existed in Africa prior to the coming of colonialism. Zulu (2012) states that ancient Kemet (Egypt) and Mali had evolved a system for managing information and knowledge prior to the period of colonialism, while in most parts of sub-Saharan Africa oral traditions were the most important medium for storage and exchange of information. In 2015, Lor confirmed the existence of libraries in Africa prior to European colonization. He states that libraries first made their appearance on the northern fringes of the African continent during the first millennium BC. For example, the Meroitic and Ge'ez scripts bear testimony to a thriving ancient civilisation. This section will examine the development of libraries and library consortia in some African countries (See Chapter 4 for library development and library consortia in Zimbabwe).

Olden (2015: 143) points out that the Library of Alexandria in Egypt was well known in much of the ancient world, but that by the start of the 20th century many African countries were under foreign rule. This had significant implications for library development in that foreign models were not always appropriate. Nonetheless, support for library development was extended to Higher Education, with University libraries receiving attention from development partners. Kavulya, (2006) states that African university libraries were established on a solid foundation because of support by foreign organizations such as the British Council, Carnegie Corporation, the

United States Information Service, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Bank.

Ford (2016: 9) recently noted that the rapid expansion of universities in Africa exacerbates existing challenges in terms of funding and ensuring that standards are maintained in Higher and tertiary education. He argues that the proportion of people going to university has risen steadily across the world over the past 50 years. He states that the democratisation of education has made it a more easily obtainable aspiration for far more young people, and those returning to higher education. “But there are big challenges in this process, including maintaining standards as student numbers increase; balancing teaching with research; and helping to ensure that there are enough jobs for those who graduate” Ford (2016: 9). Developing countries have to grapple with these challenges, as well as the poor use of important sources due to a lack of information literacy skills (Sithole, Chisita, & Jagero, 2015). Given the potential value of library consortia to address these challenges, there have been external efforts to promote their development.

Examples are the Electronic Information for Libraries (EIFL) and The International Network for the availability of scientific publications to support the development of library consortia in Africa. They have focused on building capacity to use, manage and communicate research information (Mapulanga, 2012; Bernal & Kupryte, 2008). Although there is inequitable access to the internet and e-resources in Africa, attributed to the poor state of ICT infrastructure and lack of adequate investments, there has been an increase in the availability and use of e-resources such as e-databases, CD-ROMs, e-journals and e-books in African libraries (Ekenna & Ukpabor, 2012; Ngozi, 2010). Furthermore, the utilization of electronic networks as a means of expanding access to research, study and information material is also another factor resulting in emergence of library consortia. An EIFL report (2008) states that membership of library consortia results in the following benefits:

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; and
- Promotes cost effective, customer driven services.

In 2013, EIFL was working with library consortia in more than 46 countries, including those in Africa, to help build their organisational skills and capacity to cooperate in sharing online resources, skills and services. Okojie (2010) highlighted eIFL.net 's involvement in the development of African library consortia in university libraries to facilitate resource sharing, and training of librarians in the use of open access resources, open source software and developing institutional repositories.

Since its inception, eIFL has helped to remove the impediments that libraries in developing countries face in accessing information, by promoting the building and development of sustainable library consortia. Moghadam and Talawar (2010) describes the Electronic Information for Libraries Network (eIFL.net) as an independent foundation that negotiates and advocates for the wide availability of electronic resources for library users in transition and developing countries. The authors state that the main focus is on negotiating affordable subscriptions to electronic journals for libraries in the education and research sectors, while supporting emerging national library consortia in member countries. Eifl.net provides training, advice and consultancy on consortium management through trouble shooting visits and training on advocacy, promotion and fundraising.

The EIFL (Electronic Information for Libraries) Direct Project is an initiative of the Open Society Institute (OSI) (Ojedokun & Lumande, 2009b). The project started in October 1999 with the aim of providing libraries in 'countries in transition' with access to a menu of electronic resources, mainly in the social sciences, the humanities and

business (Ojedokun & Lumande, 2009b). EIFL is on the forefront in supporting library consortia in Africa. For example, in Southern Africa it has helped in the development of Zambia Library Consortium (ZALICO), Zimbabwe University Library Consortium (ZULC), Malawi Library Consortium (MALICO), Kenya Library and Information Services Consortium (KLISC), Consortium of Tanzania Research and University Libraries (COTUL), Nigerian University Libraries Consortium (NULC) and Consortium of Uganda University libraries (CUUL). Munatsi (2009) noted that the Greenstone Southern Africa Pilot project was collaboration between eIFL and the University of Zimbabwe. The project was meant to popularize Greenstone Library Management Software among academic and research libraries in Southern Africa. Greenstone Library Software Project came at an opportune time when the Zimbabwe University Library Consortium (ZULC) had initiated a number of e-resources and digital library projects and software to effectively manage digital resources.

3.3.1 Library Consortia in West Africa

The development of library consortia in West African is centered on developments in Higher Education where the demand for information to support learning, teaching and research is always high (Etim, 2012). The following sub-sections will highlight library consortia development in Ghana and Nigeria.

3.3.1.1 Ghana

Ghana's only library consortium is called Consortium of Academic and Research Libraries (CARLIGH). The consortium held its First International Conference in Accra, with the theme "**Innovation for access to information**" from 14 to 18 July 2014 as part of its 10th Anniversary celebrations. The conference tackled a number critical issues ranging from:

- Library integration and resource sharing;
- Technology-driven information services – E-resources;

- Institutional Repository, Open Access, The 21st Century Librarian – satisfying the needs of users;
- Social media in libraries and information service delivery;
- Impact of social media on socio-economic development;
- Innovative library marketing and collaboration; and
- Agricultural information management.

Dzandza and Alemna (2012) trace CARLIGH's history to the late 1990s when Ghana's Interlending and Document Delivery Network (GIDDL) was set up with support from Danish Aid International (DANIDA). In 2004, CARLIGH consisting of five working groups was formed. The consortium consists of the following working groups:

- bibliographic services;
- Information and Communication Technology;
- Training - Continuous professional development and workplace learning for librarians is provided and it covers key topical issues relating to Library and Information Science;
- Information Marketing; and
- Electronic Information Services.

CARLIGH aims to provide unlimited access to Library and Information resources to academic and research communities, and the general public. The consortium has an impressive membership of eighteen libraries from Accra to Winneba and to Tamale including all six public universities, eight private universities, two polytechnics and two research institutes (Assamoah-Hassan, 2009). Assamoah-Hassan and Frempong (2008) state that CARLIGH plays a central role in negotiating and licensing databases that contain the e-journals available to the academic and research

community in the country. It provides access to member libraries on a subscription basis and costs are shared amongst members.

Corleley (2011) states that CARLIGH has been instrumental in helping member institutions to set up institutional repositories, and to widen access to electronic content. CARLIGH also negotiates access to electronic resources for its members, and solicits support for training programs to enhance the professionalism of the staff (Corleley, 2011). This was achieved with support from and other institutions. Asamoah-Hassan and Frempong (2008) lists the following as challenges for library consortium development in Ghana:

- Securing a buy-in from management to support subscriptions to e-resources;
- Lack of funding to ensure full subscription to all databases;
- Slow rate at which members pay their share of costs to e-journals;
- Low bandwidth and poor electricity supply;
- Inadequate training and poor infrastructure to develop and maintain institutional repositories and promote local e-content;and
- Copyright and network security issues.

There is still greater potential for library consortia development to incorporate other sectors, such as schools, industry and commerce, and research.

3.3.1.2 Nigeria

There were numerous attempts to develop library consortia in Nigeria. For example, co-operation among university libraries from Ahmadu Bello University, Obafemi Awolowo University, University of Ibadan, University of Benin, University of Ilorin and the University of Nigeria, Usukka (Sanni& Igbafe 2004). Nwalo (2008) stated that attempted academic library co-operations in Nigeria faced challenges because of

adoption of wrong strategies. The author bemoaned that ownership of resources rather than access has been emphasized while the basis for resource sharing has not always been based on informetrics. The development of library consortia in Nigeria has been affected by failure of stakeholders to put aside personal interests and pursue common goals. Nwalo (2008) noted that misunderstandings and misconceptions among libraries and librarians could be avoided through proper consultation and appropriate consideration key issues relating to; clear goals understood by all members of the consortium, proper planning, formalized agreements on consortium arrangements, defined decision making process including roles and responsibilities, proper functional communication among consortium members, identified strengths and weaknesses of all participating libraries and adequate stakeholder representation.

Bozimo (2011) reported on the formation of the Nigerian University Libraries Consortium (NULIC) and the challenges relating to strategy and underfunding. Attempts at enhancing library co-operation among Universities have resulted in co-operative acquisition, the production of an index to Nigerian theses and dissertations, the production of an index to Nigerian periodicals, the establishment of reference libraries in selected university libraries, the setting up of reference libraries, and the formation of consortia to provide access to electronic resources.

Folorunsa and Folorunsa (2011) state that John Harris stimulated the idea and drive towards library cooperation in the second half of the twentieth century by submitting a memorandum to the Nigerian government advocating for the establishment of a Library Advisory and Consultative Committee for Resource Sharing. Other initiatives resource sharing and networking initiatives leading to union lists or shared catalogues. Okeagu and Okeagu (2008), Edem (2010), Omekwu and Anyaogu (2006), and Nwalo (2008) concur that the global information explosion, the cut in budgetary allocation, the rising costs and complexities of information resources as well as the imperative to provide the user community with optimal access to needed information have stimulated the growth of resource sharing initiatives in Nigeria.

Nwalo (2008) traces the origin of formal inter-library cooperation to the meeting of the working group on inter-library lending held in 1974 at the National library of Nigeria. Ezeala (2008) explains that there have always been some forms of cooperation such as interlibrary lending, reference services and photo reproduction of materials. The Kaduna conference therefore looked beyond inter-library lending and recommended cooperative acquisition (Nwalo, 2008). In 2004, the committee of University Libraries of Nigerian Universities (CULNU) formed the Nigerian University Libraries Consortium (NULIC) to embrace all universities with the view to expanding it to include all In this scheme, Nigerian Universities are to contribute their research information which would be placed on line for sharing CULNU later developed into the Nigerian University consortium (NULIC).Okeagu and Okeagu, (2008) cites the Nigerian Universities NETWORK (NUNET) as another initiative by the Nigerian Universities Commission to encourage academic institutions to network and share information for academic and administrative functions .

At the beginning of 2001, EIFL encouraged libraries to form a consortium for cooperative purchasing and it also provided several workshops on developing a consortium and access to e-resources. It was through the support from EIFL that the Consortium of Nigerian Libraries (CONLIB) was formalised to promote library cooperation (Okeagu & Okeagu, 2008). CONLIB really did not thrive because of the following factors:

- Ojedokun, and Lumande, (2005) note that in Africa governments have not been supportive of library consortia development. Goodluck (2012) states that funding is vital to enable library consortia to procure the resources needed for the consortium, and;
- Rapid growth of new private universities leading to a more competitive education environment.

Ali, Owoeye and Anasi (2010) list the following as key factors undermining effectiveness with regards to resource sharing in Nigeria:

- Inadequate funding to install and maintain ICT hardware and software, subscribe to databases, and facilitate Internet connections; and
- Nwalo (2008) indicated that the lack of coordination among libraries to initiate a cooperative network for Nigeria was a great set back in the drive to develop a national library consortium. Goodluck (2012) highlighted the importance of consortium building in the development of libraries worldwide. The author reiterated the need to encourage consortium building among university libraries especially in the era of rapid information expansion (see 1.2.1&1.2.3)

The challenges that affect library consortia in West Africa are similar to those affecting library consortia in other regions of Africa. However Eastern and Southern Africa have a distinctive pattern of library consortia development and will be discussed in the next sections.

3.3.2 Library Consortia in East Africa

Kenya was selected because of its well-developed library consortia in this region of Africa

3.3.2.1 Kenya

Otando (2011) states that libraries in Kenya came together in 2002 to create the Kenya Libraries and Information Services Consortium (KLISC). In 2012, Otando stated that development KLISC was also supported by INASP with its commitment to fund electronic journals sourced through the first phase of the PERI and the drive towards self-sustenance.

KLISC is Kenya's national library consortium that was established in 2003. The establishment of KLISC was facilitated by support from for the funding of electronic

journals in the first phase of the Programme for the Enhancement of Research Information (PERI) to share costs (Otando, 2012). Shibanda (2006) states that the PERI project has helped to overcome the challenges of accessing research literature for scholars in Africa, for example, all public and private Universities including research institutions can access the e-journals. The objective of KLISC was therefore premised on cost sharing and capacity building. The development of KLISC has also been supported by Eifl through funding for projects and continuous professional development, for example, sponsoring members to attend an Open Access workshop in South Africa.

In 2014, it had 94 member institutions, including academic, research and national/public libraries (KLISC, 2014). Its mission is to “provide leadership and synergy building in knowledge and information resources sharing through capacity building, advocacy, networking and collaborations” (KLISC, 2014). Some of its objectives include promoting intellectual freedom and the adoption of ICT services among member institutions, as well as enhancing the provision of learning resources and access to information. KLISC is a large multi-sector library consortium that uses the institution type as a key factor for dividing e-resource subscriptions.

The development of library consortia in Kenya exhibits similar characteristics to those in other parts of Africa, namely, catering for Higher Education and obtaining support from external agencies. This pattern can also be seen in the case of Malawi.

Central and Southern Africa has a well-developed library consortia system as evidenced by the case of South Africa. Higher Education institutions play a critical role in the establishment and growth library consortia, and there is a correlation between the educational system and the development of libraries in these countries.

3.3.3 Library Development in Southern Africa

The significant eras in the development of libraries in Southern Africa include those of colonialism, post-colonialism and post-independence. The following sections will deal with Malawi and South Africa.

3.3.3.1 Malawi

Mwiyeriwa and Ngwira (2003) state that Malawi established its own Library and Information Consortium (MALICO) in 2002. Shafika (2007) state that MALICO was established as a consortium of organisations that combine talents and resources to promote and deliver library and information services for Malawi and the global community. Its members participate in the acquisition and delivery of relevant electronic resources. MALICO aims to offer leadership in library co-operation, training and development, mechanisms for improved access to information, and a capacity for members to respond to the information needs of the country (Shafika, 2007).

The project was sponsored by EIFL and, MALICO draws its membership from Universities, Research Centers, the National Library Services and, the Reserve Bank of Malawi. The consortium is built on the notion of collective workmanship namely “*Mutu umodzi susenza denga: One head cannot hold up a roof*”. Member libraries are able to subscribe to a number of fee-paying e-resources and register for free ones on behalf of their users. The desire to expand access to digital content has resulted in a few projects such as 4 VSAT through the support of the Open Society Initiative for Southern Africa (OSISA) with supplementary funding from the Open Society Institute and the World Bank and the University of Malawi. Such initiatives led to the development of planned National Education Research Network (NREN) (Ngwira, 2006).

Harle (2010) and Mapulanga (2012) identify the following challenges for MALICO:

- Securing a buy-in from management to commit funds for e-resource subscriptions. MALICO has embarked on sensitization initiatives to enable top

management to appreciate and support the development of library development with regards to improved access to scholarly content. Such initiatives will involve workshops, symposia and conferences;

- Lack of foreign exchange resulted in halting of access to partial subscription to e-resources in 2011;
- Due to inadequate funding, MALICO could not subscribe to all databases. This is being pursued through seeking alternative funding sources, for example, widening membership and partnerships;
- Getting researchers to use the e-resources, because of the slow internet speed. MALICO working in collaboration with MAREN, EIFL and INASP and other development partners;
- The slow rate at which MALICO paid their share of cost of subscription to e-resources. Users require reliable and timely access to scholarly content but if subscriptions are not paid in out access will be affected. Goodluck (2012) noted that irregular payments are associated with budget cuts or non-release of subventions by the sponsoring bodies of the libraries;
- Generally library consortia face funding challenges, hence the need to come up with strategies to source alternative funding through collaborations with other institutions in the public and private sector;
- Government support is critical for the development of a vibrant national information system which also includes academic libraries as the subsystem (see 3.2.1);
- The energy crisis in Africa affects service delivery with regards to research, learning and teaching. Technology-driven library services rely on reliable energy supplies and hence the need to seek alternative sources of energy. Ruppel, and Ruppel-Schlichting, 2016) .Electricity is needed to perform most library operations in a computerized environment. Where there is no constant power supply, the consortium may suffer a set back or a library may not experience its full benefits.

- Academic libraries in Africa are affected by higher costs of internet connectivity and low bandwidths (Echezona, 2010). The partnerships between library consortia and National Research and Education Networks (NRENs) is important in improving internet connectivity for sustainable .

Mapulanga (2012) made the following recommendations to improve MALICO'S operations:

- Conduct comprehensive review of the type of databases to subscribe to, and lobby heads of institutions to make more funds available for the databases selected;
- Embark on strategic planning to ensure that targets are met and to avoid interruption of access to the databases;
- Consider alternative sources of energy as back-up to ensure uninterrupted access to e-resources;
- Negotiate for increased bandwidths to ensure constant access to the e-resources. The collaboration between MALICO and Malawi Education Research network (MAREN) and Ubutunet alliance will enable affordable access to internet;
- Encourage libraries to digitise local content and establish institutional repositories. This has been made possible through support from INASP Salange (2012) noted that libraries in Malawi were benefiting from MALICO through subscriptions to a number of fee-paying e-resources and register for free resources on behalf of their users. MALICO has also provided training in digitization, development of digital libraries and providing connectivity to staff drawn from libraries. Malawi has begun developing its digital library collections using free open source software, including Greenstone and DSpace (Salange, 2012); and

- There is a need to educate members of faculty on the importance of publishing locally using open access mechanism. Institutions including library consortia should strive to ensure that publishing using open access platforms become an embedded culture (Moahi, 2010).

The development of library consortia in Malawi has also been leveraged through support from Eifl, but the critical challenge of sustainability is lack of support from the state. Library consortia should go beyond resource sharing to consider income generation or Info-preneurship to achieve sustainability. Even though South Africa has a better record of sustainability it still faces challenges that are common to other consortia in Africa and Southern Africa.

3.3.3.2 South Africa

Taole (2009) states that prior to 1975, library cooperation in South Africa was conducted on an *ad hoc* basis and that it was only when the Inter-University Library Cooperation (IULC) was formed that effective ways to improve resource sharing were sought. A framework resulted in the development of five academic library consortia in South Africa. Coetsee and Weiner (2013) explains the motivation to cooperate among the five academic library consortia in South Africa, namely the Cape Library Cooperative (CALICO), the Eastern Seaboard Association of Libraries (ESAL), the Free State Libraries and Information Consortium (FRELICO), the South Eastern Academic Libraries Systems (SEALS), and the Gauteng and Environs Library Consortium (GAELIC). The authors highlight the differences in the financial support for each academic institution with the English-medium institutions like the University of Cape Town and the University of Witwatersrand boasting well renowned scholars and a high profile research agenda and a sound financial budget. Coetsee and Weiner (2013) states that the formation of regional library consortia occurred between 1992 and 1998. This period is also known as the 'decade of library consortia'. According to the Library and Information Services (LIS) Transformation Charter (2014), each university has a library or an

academic information service aligned with the mission and goals of higher institutions with regards to supporting teaching, learning and research. (See Appendix 8 for a list of library consortia in South Africa).

Library consortia in South Africa have contributed to the political, social, and economic transformation in South Africa that intends to provide equal opportunities for all libraries in South Africa, not just a privileged few (Coetsee & Weiner, 2013; Gwenda & Fourie, 2006). Regional library consortia in South Africa promoted resource sharing, purchasing common library system, joint purchasing of electronic resources and licensing agreements (Thomas & Fourie, 2007; Taole, 2009). The Coalition of South African Library Consortia (COSALC) became the umbrella body for the regional library consortia members of a national consortium. Membership was also extended to include the Library and Information Association of South Africa (LIASA) and the National Library of South Africa (NLSA). COSALC initiated a number of projects including South African Site non-regional academic library consortia including Library Licensing Initiative (SASLI), negotiating license agreements and pricing of electronic resources, widening access to member institutions and capacity building (SANLiC, 2015). COSALC gained legal status in 2003 and was also registered as a non-profit organisation in 2003.

In 2007, COSALC was renamed the South African National Library Consortium (SANLiC). SANLiC's vision is to be the "leading facilitator of cost effective access to high-quality scholarly electronic information in support of research, teaching and learning in Public Higher Education and Research Institutions" (SANLiC, 2015). In 2013, SANLiC was endorsed by the Department of Higher Education and Technology (DHET) to play a critical role in widening access to electronic resources for the entire library sector in South Africa. SANLiC benefits from a strong foundation of national cooperation among stakeholders. It has developed considerable expertise through working with the public, academic and research communities in improving access to scholarly electronic information (SANLiC, 2015). However, some of the consortia continue to operate while others perform different

functions. SEALS & CALICO are still operational, but SANLIC plays an overall role at a national level.

The pattern of library consortia in South Africa is dependent upon its level of industrialization, as well as the expansion of the Higher Education and Research sectors. The consortia reflect the adaptation of European and American models, which range from sectoral to regional and subject-specific. On the other hand, Zimbabwe, a neighbour of South Africa, presents a special case of a country with emerging library consortia.

3.4 Summary

The Chapter examined the development of library consortia in developed and developing countries. Southern Africa, with the exception of South Africa, still generally experiences slow progress in the development of library consortia, and this can be improved if governments and other key stakeholders incorporate library development on to the development agendas. The next chapter will present an overview of the development of academic libraries and library consortia in Zimbabwe.

4 CHAPTER FOUR: ACADEMIC LIBRARIES AND LIBRARY CONSORTIA IN ZIMBABWE

4.1 Introduction

The development of libraries in Zimbabwe dates back to the 1890s when white settlers established subscription libraries in the main cities of Harare, Bulawayo, Mutare, Gweru, and Masvingo to provide for their informational, educational and entertainment needs. The significant periods of development include the Pioneer Era (1890-1928), the Carnegie Era (1928 -1950), the Federation (1953-1963), the Unilateral Declaration of Independence (1965-1979), and post-independence from 1980. The Carnegie philanthropic initiatives promoted the development of public libraries for underprivileged Africans. The colonial government refused to incorporate Africans into the mainstream socio-economic and cultural activities that required high levels of literacy. Africans therefore remained disadvantaged with regard to access to libraries. After independence the Government enacted the National Library and Documentation Services Act of Zimbabwe in 1985 to develop and coordinate library services for the benefit of all citizens. The establishment of a national library, which is a feature among former British colonies, was achieved in 1982 (Sturges, 2001: 38-39).

There was only one public university library at independence in 1980, with the rest being established after 1990. The new Government of Zimbabwe embarked on a massive expansion of educational provision to address historical imbalances and promote socio-economic development (Nherera, 2000). The legal framework for education in post-independent Zimbabwe was shaped by the ideals of the liberation struggle, international conventions on human rights, equality and the government's thrust towards socialist transformation. Government enacted the Education Act of 1980, Manpower Development Act of 1994, and the Zimbabwe Manpower

Development Fund (1994) to support the development of education, including libraries.

The increase in the number of public and private universities between 1990 and 2005 strengthened calls for the establishment of a more robust quality assurance body to replace the National Council for Higher Education (NCHE) that had been established in 1990 (Garwe, 2014). ZIMCHE was subsequently established in 2006 to register and accredit higher education institutions. Its mandate is “to promote and coordinate education provided by institutions of higher education and to act as a regulator in the determination and maintenance of standards of teaching, examinations, academic qualifications and research in institutions of higher education” (ZIMCHE Act, 2006). Academic libraries are part of ZIMCHE’s checklist with regards to quality control.

4.2 Funding for Zimbabwe’s academic libraries

Samea (2015) underscores the critical role of the academic library in supporting educational and research goals, as well as providing the tools needed by faculty, students, administrative staff, and the community. In 1997, Rosenberg conducted a review of the state of university libraries in Africa that highlighted the extremely poor, though widely varying financial situations at different universities. In 2005, Ojedokun, and Lumande explained that successive governments in African countries have not been helpful because of the pressure on institutions to compete for dwindling funds. They argued that the reliance on subventions cannot keep up with the increasing cost of e-resources. Okojie (2010: 404) later noted how librarians still relied on their parent institutions to provide adequate funding for libraries, emphasising the economic downturn in many African countries from the late 1970s. This resulted in cut-backs in every sector, including the library and information sector. As alternative sources of funding, Okojie (2010) lists local and global fundraising, donations, gifts, requests, endowments, exchanges, sales and services, library fees, Public and

Private Partnerships (PPPs), resource sharing, consortium building, and exchange programmes.

The importance of funding for academic libraries in Southern Africa may be illustrated by the contributions of the University of Fort Hare, which produced some of the pioneers of African nationalism, such as the late President Nelson Mandela of South Africa, President Robert Mugabe of Zimbabwe, and former President Kenneth Kaunda of Zambia. However, Mavodza (2014: 93) noted a few years ago that that academic libraries in Zimbabwe were still facing acute technological and funding challenges, and that this was affecting their efforts to provide for the information needs of academic communities. The establishment of library consortia has been an attempt to respond to this challenge.

4.3 Library Consortia in Zimbabwe

Zimbabwe currently has two library consortia namely the Zimbabwe University Library Consortium (ZULC) and the College and Research Libraries Consortium (CARLC). The former primarily represents University libraries, while the latter represents College and Research Libraries.

4.3.1 Zimbabwe University Library Consortium (ZULC)

The Zimbabwe University Librarians Consortium (ZULC) dates back to 2001 when seven University Libraries came together to create a platform for resource sharing among members and the community in general. Ndlovu (2011) traces the origins of ZULC to February 2000, when the various University Libraries conglomerated to discuss ways of cooperating as one group. He states that after discussions, a funding proposal was written to the Open Society Institute of Southern Africa (OSISA) for the formation of University library consortia. This marked the genesis of

the first sectoral library consortia representing Universities and College and Research Libraries in Zimbabwe.

According to the minutes of the first working group for ZULC dated 27 February 2002, the library consortium was launched against a background of declining economic standards, for example low budgets and a rising cost of living. Sahu (2006) stated that the conventional model of scholarly communication, based on journal publication, has been unsuccessful in democratising access to information accessible and usable especially for the developing world due to high subscription fees. Africa, including Zimbabwe, has not been spared from the effects of high subscription fees for scholarly communication that are beyond the reach of many institutions (Kusekwa & Mushowani, 2013). The first meeting of the ZULC Information Technology workgroup held on 8 July 2002 endorsed the proposed launch of ZULC. The meeting was attended by representatives of the College and Research Libraries Consortium of Zimbabwe (CARLC) as observers, and it was resolved later that members of both consortia would be sponsored to attend the Coalition of South African Library Consortia (COSALC) meeting to learn more on how to develop library consortia.

Bhukuvhani, Chiparaushe, and Zuvalingenga (2012) explain how University libraries in Zimbabwe obtained cheaper access to electronic resources through special consortial arrangements. An example is that ZULC pays for e-resources collectively for its members at negotiated rates through the International Network for the Availability of Scientific Publications' Programme for the Enhancement of Research Information (PERI). This benefits its members through access to full-text journal resources, databases and backup support for document delivery. In 2014, ZULC had 15 full members, (all of which are universities), and six affiliate members, which include colleges and polytechnics (Chikonzo, 2014).

ZULC is fundamentally driven by the belief that access, as opposed to traditional unqualified ownership, is the most viable strategy to promote the ideals of the

universities in Zimbabwe. Ojedokun and Lumande (2005a) acknowledged the paradigm shift in academic libraries as they morph from owning specific physical entities in local collections to providing access to many multi-format resources. They explain that academic libraries in Southern Africa were moving towards distributed information resources because of the proliferation of ICTs. ZULC members benefit from negotiations with Eifl and for lower subscription and prices for e-resources (NUST, 2011). With increased membership to the consortia there has been a decrease in institutional contributions to the licensing fees, thus enabling members to have access to a wider range of e-resources.

Academic libraries receive funding from various sources including, the sale of duplicate journals and back issues of newspapers, photocopying, and publishing, registration of users, binding, fines, gifts, private and public partnerships (PPPs) grants and endowments. The crisis in institutions of higher learning, especially in the university libraries, stem from under-funding which leads to lack of adequate infrastructures and facilities (Aina, 2002). Academic libraries in Zimbabwe are affected by socio-economic conditions, as is the case in South Africa. In the 1970s, the South African economy, for example, showed signs of continuous increases in the rate of inflation, which led to a devaluation of the Rand, negatively affecting academic libraries' purchasing power.

There are a number of empirical studies on the funding of university libraries in Tanzania, Zambia, and Uganda. All confirmed that funding was critical for any meaningful development to take place (Butz, 1999; Simui and Kanyengo, 2001; Bilali, 2000). In Zimbabwe, the formation of ZULC and CARLC has helped to develop libraries through internal and external funding. A special feature of ZULC is that it has been self-funded from the start (Chikonzo, 2014).

For future internal development, libraries and library consortia in Zimbabwe will require financial support from the Ministries of Higher and Tertiary Education, Science and Technology Development, Primary and Secondary Education, Local government and Urban and rural development, and the Promotion and Preservation

of National Culture and Heritage. Other internal sources of funding will include the Zimbabwe Manpower development Fund (ZIMDEF). The main objective of ZIMDEF is to “finance the development of critical and highly skilled manpower through a 1% Training Levy paid by registered companies in Zimbabwe”. This is in line with Manpower Planning and Development Act, Chapter 28:02 of 1996). The Zimbabwe Manpower Development Fund (ZIMDEF) was established in terms of section 23 of the Manpower Planning and Development Act 36 of 1984.

Externally, funding can be secured from development partners namely, EIFL, UNESCO, IFLA and the African development Bank (ADB). These development partners are already working in Zimbabwe and they have supported the development of libraries since independence. The proposed model in this study will continue to require support from development partners because the economy is still under-performing. Development partners like UbuntuNet Connect could help to assist with the development of internet connectivity through National Research and Education Networks (NRENs) such as ZIMREN and ZARNET to ensure high-speed nationwide internet connectivity.

EIFL has sponsored ZULC to conduct a workshop as part of the Open Access Initiative. The workshop culminated in the commissioning of an Open Access Policy. Eifl has also partnered with local Universities under the umbrella of ZULC to support the sharing of e-resources especially local e-content through institutional repositories (IRs). EIFL.net is not alone in supporting library consortia. The International Association for the Availability of Serial Publications is also on record for contributing towards library consortia development in developing countries (Ojedokun & Lumande, 2009). The PERI project is also a consortium-building effort that is being implemented in a planned and phased manner for the benefit of Southern African countries. The project has assisted with funding subscription and training in many African countries (Ojedokun & Lumande, 2005).

Farrow (2011) states that the International Association for the Availability of Serial Publications has contributed towards building access to research and scholarly information through electronic information resources and online journals. This has been helpful in boosting local organisational capacity of libraries to provide

information services. ZULC has established institutional repositories using commercial or free open source software, for example, DSpace and Greenstone, but they have fallen short on developing Open Access Policies (Chikonzo 2013). In a study conducted in 2013 among ZULC members, Kusekwa and Mushowani claimed that the Open access initiatives had gained ground but that some institutions have still not implemented such policies.

4.3.2 Membership of ZULC

The academic libraries belonging to ZULC have different backgrounds in respect of their origins, location, and mandate. Mabuto and Tendai (2015) argue that university libraries in Zimbabwe developed from humble beginnings and are characterized by meagre resources. They cite the Great Zimbabwe University library which was established in the year 2000 with an initial collection of 481 volumes. The collection has since grown to 1 7500 volumes and a subscription to over 10 000 electronic journals as at October 2013. It was through the EIFL and ZULC partnership that the latter was born and access to scholarly e-resources for academic libraries was widened. The formation of ZULC resulted in the strengthening of collaboration initiative among academic libraries in Zimbabwe. The Universities that subscribe to ZULC are located in the ten provinces of Zimbabwe. ZULC's mandate is to unite university libraries to achieve common objectives for the benefit of members of the group. There are various reasons for the establishment of each university. For example, the Bindura University of Science Education was established in 1995 to address the shortage of science teachers (Bindura University of Science Education Prospectus, 2015). Another example is the Harare Institute of Technology and Bindura University of Science Education.

Of the academic libraries belonging to ZULC, the University of Zimbabwe is the oldest having been established in 1952. The other universities were established after independence. They are the National University of Science and Technology (NUST, 1991), Bindura University of Science Education (BUSE, 1995), Chinhoyi University of Technology (CUT, 2001), Midlands State University (MSU, 2000), Great Zimbabwe

University (GZU, and the Reformed Church University (RCU, 2012). The establishment of the National University of Science and Technology in 1991 was the result of the recommendations of the Williams Commission.

The ZULC constitution empowers the consortium to accommodate other university libraries and Polytechnics as affiliate members. Differences in institutional size and capacity mean that the current model of cost and resource sharing is not working well for everyone (ZULC, 2016). In 2016, Mbasera argued that the current model for ZULC benefited the old and original members, and recommended a proportional cost-sharing model for subscriptions. The consortium has a formal constitution and clearly specified vision, mission and goals which are contained in its 2014-2018 strategic plans (ZULC, 2016). ZULC is keen to broaden its membership beyond the traditional university and college members to include NGOs, research institutions and government departments (Chikonzo, 2016).

There are also teachers colleges that belong to ZULC as affiliate members. CARLC members who belong to ZULC offer programmes in collaboration with the Universities, for example, Diplomas in Teacher Education. The teachers colleges are associate members of the Department of Teacher Education of the University of Zimbabwe. Their programmes are coordinated, monitored and assessed by the Department of Teacher Education (Majoni, 2014). This associate scheme implies that the entry qualifications, general regulations, curriculum and certificates are awarded to successful candidates by the University of Zimbabwe (Chivore, 1994). Teachers colleges that are associate institutions of the University of Zimbabwe have autonomy to develop, review and seek approval of new curricula and courses of study (DTE Handbook, 2012).

Zimbabwe's Polytechnic institutions and their libraries are the oldest educational institutions in the country and they provide Technical Vocational Education and Training programmes (TVET). Prior to independence there were only two Polytechnics namely, Harare Polytechnic (established in 1919) and Bulawayo

Polytechnic. Currently there are TVET institutions located within each of the ten provinces. Academic libraries play a critical role in supporting TVET programmes with regards to teaching, learning and research. Phuti (2007) acknowledged the critical role of TVET but noted that it was given lower priority in policy formulation, funding and monitoring than basic or general education. Zimbabwe's TVET is industry-driven and aims at solving the country's socio-economic challenges. Zengeya (2008) underscored the need to match TVET policy growth and development with socio economic challenges peculiar to Zimbabwe.

Mutare, Kwekwe and Bulawayo Polytechnics are affiliate members of ZULC (Chikonzo, 2016). They offer TVET programmes from National Certificate level to Bachelor of Technology (BTECH). Bulawayo Polytechnic was established in 1927 in Bulawayo. It provides a number of higher education qualifications in Science, Technology, Engineering and Mathematics. Some of the programs offered include mechanical engineering, electrical engineering, automotive engineering, information technology, biotechnology as well as commerce programs such as marketing management, purchasing and supply, and secretarial studies. It also offers the Bachelor of Technology degrees in Environmental Health and Water Resource Engineering, in conjunction with NUST.

Mutare Polytechnic construction started in 1984, and classes officially commenced in 1986. It is located in the Manicaland Province of Zimbabwe. It is one of the largest technical colleges in the country, and offers a number of programmes on both a full-time and part-time basis. Kwekwe Polytechnic started as training school of Union Carbide, but was later donated to the government of Zimbabwe after independence as a gesture of goodwill. It is the only tertiary education institution in Kwekwe. Currently, the Kwekwe Polytechnic offers Bachelor of Technology degrees in various Science and Technology disciplines (B-Tech degrees).

4.3.3 College and Research Library Consortium of Zimbabwe (CARLC)

The other library consortium in Zimbabwe is the College and Research Library Consortium of Zimbabwe (CARLC). This library consortium was formed at a workshop for librarians that was held at Mont Clair, Nyanga, in 1999. The Consortium currently covers Polytechnics, Teachers Colleges, and the Ministry of Higher and Tertiary education libraries. Libraries in technical, academic, college and research institutions qualify to be members of CARLC upon payment of a subscription fee. There is not much written about CARLC, but it aims to:

- Support teaching, learning, and research by providing educational and research materials that meets the needs of the libraries' clientele; and
- Transform manual to automated library systems that embrace new information technology that will increase access to databases available on CD-ROMS and the Internet.

CARLC is composed mainly of Polytechnics and teachers colleges. Munatsi (2009: 3) described CARLC as “a grouping of government college and research libraries whose mission is to act as the chief catalyst in the overall development of member libraries through leadership, support, motivation, research and advocacy including championing access to electronic information resources and technologies...”. Polytechnics are viewed also as government libraries because they fall under the Ministry of Higher and Tertiary Education , Science and Technology Development. CARLC is therefore viewed as important in promoting the interests of government libraries (Mavodza, 2014).

Harare Polytechnic is the largest and the founder member of CARLC. It was established in 1919 when George Challoner started mechanical engineering classes for a small group of young white men. Classes were held in various schools and halls until the Polytechnic was established just before the Second World War. It offers programmes in Science, Engineering, and Commerce. It was officially opened by Sir Humphrey Gibbs, the Governor in October 1965, and is administered

by the Ministry of Higher and Tertiary Education, Science and Technology Development. Harare Polytechnic offers Bachelor of Technology Degree programmes in Chemical Technology, and Water Engineering.

Another member of CARLC is Gweru Polytechnic, which began as a satellite college of Bulawayo Technical college and was housed at Chaplin High School. In 1986, it was commissioned to train cadet lecturers and in 2001 it began training for a secondary school in Diploma in Technical Education. Gweru Polytechnic provides over 60 courses in five divisions, and like other CARLC members provides services to support teaching, learning and research. Currently the CARLC libraries are at different levels of development and can be divided into those established before and after independence. They also differ in terms of size with regards to enrollment and number of disciplines offered for study. Polytechnics are the equivalent of Technikons in South Africa that became Universities of Technology because they all offer Technical Vocational Education and Training (TVET).

CARLC is still in its development stage and some institutions are yet to join. Both CARLC and ZULC institutions face the challenges of affordable internet connectivity and currently rely on commercial internet service providers. The demand for affordable internet connectivity has precipitated the development of National Research and Education Networks (NRENS), which provide affordable access to internet connectivity. Burnett (2015) urged NRENS to offer more in order to gain a competitive advantage over commercial ISPs, for example the provision of high quality service. The establishment of the Zimbabwe Research and Education Network (ZAMREN) and its enlistment as a member of the Ubuntu alliance in 2015 is likely to benefit CARLC and ZULC members to access affordable internet connectivity.

In South Africa, there are similar disparities between Universities and Technical colleges, with the former being better resourced, organised and networked, and the latter varying in quality and at different stages of development. However, libraries attached to TVET institutions in South Africa can benefit from SANLIC unlike those in

Zimbabwe because of the lack of a national coordinating body to facilitate access to e-resources. This study intends to produce a model to support nationwide access to e-resources (see 8.1, 8.2 & 8.3).

The development of library consortia in Zimbabwe is characterised moreover by a sectoral model, initially supported through EIFL and external donors. It may be time to consider a new model that will not just extend the benefits of library cooperation and development to other types of libraries, but that will underpin the larger goals of national development and not just those of the Higher education sector. The following sections will review theories of development and Zimbabwe's initiatives for national development.

4.4 Development theories

The concept of development studies emerged as a post-World War II challenge to assist poorer countries to catch up economically with richer countries. Greig, Hulme and Turner (2007: 43) argue that there are collective nouns meant to describe the poorer countries as a whole, for example "developing world", "the underdeveloped world", "the backward countries", the "Third World", the "South", or "emerging countries". There are also various theories that attempt to explain socio-economic development. These theories have their weaknesses and strengths, as will be shown below. In facilitating access to information to support learning, teaching and research, academic libraries can contribute to the success of national development programmes.

The theory of modernisation became popular after 1945 and was used by Western powers as a counter-measure to prevent newly independent third world countries from falling into the control of communist countries (Haque, 1999: 72). As a by-product of political reaction against the communist ideology, the theory of modernisation was viewed as an alternative. This theory views development as a

phased process consisting of five stages. They are: the traditional society; preconditions for take-off; take-off; road to maturity; and the age of mass consumption (Reyes, 2001: 2). This theory applies to Zimbabwe in the sense that it looked to both Western and Eastern countries after independence. It is also relevant because of its emphasis on technology transfer. The modernisation theory focuses on socio-economic transformation, but neglects social and cultural elements, which are key ingredients for any development programme.

The modernisation theory has been criticised for its methodological, theoretical and ideological weaknesses. Early sources like Pieterse (2004) state that there is a generally tendency to confuse modernisation with westernisation. The theory ignores the relativity of culture since it views development from the perspective of Eurocentrism (Wright, 2005). In a recent source by Nhema and Zinyama (2016) argue that the proponents of modernisation theory tend to downplay the weaknesses of capitalism, for example class divisions, conflict over power, and wealth. Furthermore, the modernisation theory is viewed as a façade for western imperialism. The modernisation theory can also be criticised for its perception of development as a linear rather than cyclical process.

Mutunhu (2011) advocates the African renaissance theory as the antithesis of modernisation. This theory is deeply rooted in African values and norms, which are considered the key pillars of African Life. The African renaissance theory recognises adaptability to change and innovations as long as they are initiated within the social and value systems of the ordinary African. The theory is anchored on key values like unity, communalism, 'Ubuntuism' and shared purpose. Korten (1990:4) posits that the development of Africa should involve the transformation of institutions and values, and that the behaviour of the African should be synchronised with the ecological and social realities of Africa.

As another approach to development, Nhema and Zinyama (2016) explain the dependency theory as a direct challenge to the modernisation theory. This theory

emerged during the second half of the twentieth century and was popularised by Baran (1957), Prebisch (1971), and Frank (1971). The theory focuses on the inequalities between the industrial and the under-developed countries of the world (Rodney, 1980). The dependency theory is also known as the international dependence theory, which became popular in the 1970s and early 1980s. The theory is an extension of the ideas of Karl Marx with regards to a dialectical relationship between the developed and underdeveloped countries (Hein 1992).

In Africa, the theory was popularised by Walter Rodney (1972) and Amin (2011) as they critically analysed the parasitic relationship between Africa and her former colonisers. It divides the world into the “core” and the “periphery.” Contrary to modernisation theory, dependency theory views development from the perspective of the impact of exogenous forces on the periphery. In the dependency theory, capitalism is understood as a world system that contains an inherent core-periphery duality or “metropolis-satellite” (Frank, 1971) that determines the developmental potentialities of different countries. Dependency is defined as a “situation in which a certain number of countries have their economy conditioned by the development and expansion of another” (Dos Santos 1978:544). Thus, the possibility of development is determined by the relationship of exploitation that exists between the “core and periphery.” Gunder Frank (1971) analysed the underdevelopment nexus and argued that underdevelopment should be understood as not just the lack of development but as a form of negative development of the countries of the periphery. He viewed the industrialisation and capitalist accumulation of Western Europe as grounded on the extraction of surplus from regions such as Africa and Latin America. This implies that the development of Western Europe is intertwined with the underdevelopment of Africa through the extraction from the satellites (Frank 1971: 33).

The underdevelopment of the peripheral countries was the necessary antithesis of the development of Western Capitalist countries. Howard and King (1992: 177) interpreted underdevelopment of the periphery as a matrix of zero-sum relations, in which the wealth of the metropolises is a direct function of surplus extraction from the satellite countries. The failure of the dependency theory was acknowledged by

countries like Tanzania, along with developing countries like China and India. Tanzania was forced to open up its economy to stimulate growth (Ferraro 2008; Todaro & Smith, 2009). The challenges of self-reliance drove developing countries to opt out of the dependency theory as a model for development (Hein 1992; Ferraro 2008). The ZIMASSET economic blueprint deviates from the dependency theory also as it seeks to develop the country through home-grown solutions.

Departing from these theories, the Human Capital Theory was developed by social scientists who believed in the immense potential of the return on investment in education. The interest in human capital development was premised on the idea that the most productive course to national development of any society would be possible through the advancement of its human capital (Schultz, 1961). The Human capital theory recognises a correlation between an educated population and a productive population, and that education contributes directly to the growth of the national income of societies by enhancing the skills and productive abilities of employees. It is premised on the idea that the education system, and the patterns within it, can best be understood as investments in increasing economic returns and in enhancing the place of individuals in the competitive labour market. Importantly, it has already been applied to TVET in Zimbabwe (Zengeya, 2007).

Schultz, (1961) argued that investing in education widens the range of choices available to people, and produces a labour force required for industrial development and economic growth. He also argued that human capital benefits society through improving the welfare of poor people throughout the world. Investment in education can propel economic development and the welfare of a nation. A number of studies confirmed the critical role of education in socio-economic development (Michaelowa, 2000; Psacharopoulos & Woodhall, 1985; Saha, 1991). The weaknesses of the Human capital theory lie in its assumptions, for example, the assumption that there is a perfect market for labour. The theory is idealist because education might not necessarily translate into better jobs and productivity. The theory neither takes into cognisance other factors such as motivation and human relations of production,

and it ignores the fact that education serves as a screening device (Psacharopoulos & Woodhall, 1985).

This theory does however resonate well with the country's ZIMASSET blueprint with regards to providing access to inclusive, high-quality education and training to produce innovative and competitive graduates. Academic libraries are critical for achieving many of the ZIMASSET objectives and Sustainable Development Goals (SDGs). Access to high-quality information to support researchers and scholars is critical for national development, and a vibrant national library consortium led by ZULC and CARLC could coordinate and harness the collective potential of the country's libraries. Successful national development cannot be accomplished without a high-quality human capital base, underscoring the need for an innovative approach to academic library services to support education, training, and research. These ideas about development characterise the national development initiatives of Zimbabwe, and provide an opportunity for libraries to contribute to their success.

4.5 Vision 2020, ZIMASSET, and national development

Vision 2020 and ZIMASSET have guided Zimbabwe's national development trajectory since 2000. Economic blueprints were crafted to deal with the country's special socio-economic challenges. In Vision 2020, President Robert Mugabe (2000) emphasised the importance of analysing global economic changes and their impact on national development in order to produce integrated and long-term development programmes. According to President Mugabe (2000: i), Vision 2020 therefore wants the nation "to march towards the year 2020 in unity and with a single determination to achieve our forward vision". This vision incorporates political, social, cultural, technological, and environmental dimensions and is based on medium and annual plans. Its formulation resulted from a nation-wide consultation process, and aspires to good governance, the maintenance of political stability, a diversified economy

with high growth rate, access to social services by all, the acceleration of rural development, equal opportunities for all, development and utilisation of science and technology, vibrant and dynamic culture, and the sustainable utilisation and management of natural resources.

Since 2013, however, the national development agenda of Zimbabwe has been driven by the more specific and project-focused economic blueprint called the Zimbabwe Agenda for Sustainable Socio-economic Transformation, or ZIMASSET 2013-2018. This document was developed through a rigorous consultative process involving ZANU (PF), the private sector, and other stakeholders. The focus of ZIMASSET is “the full exploitation and value addition to the country’s own abundant resources” (ZIMASSET, 2013: ix). ZIMASSET is a cluster-based plan and the key clusters for national development are:

- Food Security;
- Social Services and Poverty eradication;
- Infrastructure and utilities; and
- Value Addition and Beneficiation

These are supported by two sub-clusters, namely Fiscal reform measures and Public Administration, and Governance and Performance Management. Key strategies, success factors, and drivers are the pillars to ensure the successful implementation of ZIMASSET. In the foreword to the ZIMASSET document, President Mugabe called upon government ministries and agencies, the private sector, and development partners and the nation to unite in its successful implementation. Development partners and strong collaborative partnerships are identified among the key success factors (ZIMASSET, section 3.6: 13). References to ‘development partners’, ‘partnerships’ between government agencies and between the public and private sectors, ‘scientific and research development’, ‘infrastructure development’ and ICT research and developments can be found throughout this document (See e.g. sections 3.4.1, 3.6.1, 3.10, and 6.1). The key success factors of ZIMASSET revolve around human capital development and scientific research and

development to spur technological innovation. Academic as well as other types of libraries are therefore critical for facilitating access to information for all Zimbabweans.

In a matrix with time-frames to emphasise results, the implementation of strategies for key cluster outcomes and outputs are the responsibilities of what are called lead institutions. These lead institutions are typically government ministries, and departments such as the Ministry for Agriculture as the lead institution in the case of food security matters like crop production and marketing (ZIMASSET: 52). Other ministries as lead institutions include those responsible for Information and Communication Technologies, Health, Water Affairs, Postal and Courier Services, Primary and Secondary Education and Higher Education, Science and Technology Development, Justice and Legal Affairs, National Housing, Local Government, Social services, Women Affairs and Gender, as well as the Office of the President. ZIMASSET is quite clearly an important, results-based and fully-funded plan whose implementation will be monitored by Zimbabwe's office of the President and by its cabinet (ZIMASSET: 11).

Conspicuous by its absence, and yet indispensable to ZIMASSET's success is the support of a robust national information system to service and accelerate the achievement of cluster outcomes and outputs. Access to the kind of scientific and research development information needed by the lead institution ministries and their respective research sections cannot simply be assumed without purposeful interventions. This presents an ideal opportunity for Zimbabwe's library consortia to become the kind of development partner that ZIMASSET calls for. The national licensing for access to electronic resources in conjunction with the Ministry responsible for ICT, for example, could ensure the outcome of improved ICT standards and utilisations, and the output of establishing a national high performance computer centre (ZIMASSET: 91). The library consortia can contribute also to the modernisation of public sector agencies through various initiatives including education, awareness, advocacy and networking (see ZIMASSET section 7.4). Access to information underpins all facets of ZIMASSET and the national

development agenda. The Secretary of the Ministry of Information Media and Communication already emphasized the importance of all libraries in popularizing national development programmes, with specific reference to ZIMASSET (Ncube, 2014).

As a key development partner, library consortia can potentially communicate and facilitate access to information about ZIMASSET to people in urban and rural areas. But this will require a new model for library consortia operation. Sibanda and Mafa (2015) recently emphasised the importance of the mass media in overcoming the digital divide and rural urban divide through democratising access to information using print, radio and modern technologies to popularize the government's development agenda. They however overlook what libraries can do to contribute, and when libraries band together as library consortia their impact will be just as significant. As a useful research and development partner providing access to the different kinds of databases needed by the ministries tasked for their achievement of outcomes and outputs, library consortia can do more than just communicate ZIMASSET. They can become lead institution partners.

Their contribution to e-governance through equipping citizens with digital literacy skills to effectively utilise digital technologies, their provision of access to appropriate R&D databases to provide access to electronic content, and their role in transferring information access skills to research personnel connected to the lead institutions are among the ways in which they can become effective and important development partners. What Zimbabwe's library consortia can do resonates at the same time with the recent Lyon Declaration on Access to information and development (2014). The Declaration empowers Zimbabwe's library consortia to support the national development blue print with the following strategies:

- Providing access to promote socio-economic inclusion;
- Creating platforms to facilitate reciprocal exchange of developmental solutions;

- Providing solutions for the preservation and continued access to cultural heritage, public sector records;
- providing physical and virtual space to ensure active participation of citizens; and
- Empowering citizens with multimodal literacies.

The interventions can therefore be at both the level of government ministries and at the level of ordinary citizens. How Zimbabwe's library consortia can become effective development partners will however require a more thorough investigation and re-visioning about the format required for such a task and responsibility. The role of libraries in national development was emphasized at the 49th ZIMLA General conference, held from 23 to 25 June 2015. It provided delegates with an opportunity to discuss the opportunities for creating successful 21st century libraries that contribute and prioritise development in line with the ZIMASSET economic blueprint. The conference brought together national development and access to information themes, and librarians used the conference to share best practices on how they can support national development (ZIMLA, 2015). There has also been an advocacy workshop from 5 to 6 May 2016 that provided participants with an opportunity to discuss how ZIMLA and libraries throughout the country could best contribute to the attainment of ZIMASSET through the provision of Access to Information for All (ZIMLA, 2016). This study examines the kind of model for library consortia required to take up this role by asking what can be learned from the literature on library consortia, and from the existing state of Zimbabwe's own consortia, ZULC and CARLC.

4.6 Summary

This Chapter examined the development of libraries and library consortia in Zimbabwe. It focused especially on ZULC and CARLC, and identified the challenges that the two consortia are facing. Furthermore, the Chapter explored development theories, Vision 2020, ZIMASSET and National development in Zimbabwe. The next chapter will present the research methodology for the empirical component of the study.

5 CHAPTER FIVE: RESEARCH METHODOLOGY

5.1 Introduction

This Chapter presents the research methodology and research techniques that will be used to conduct the study. It describes the research design, research sites and sampling techniques, target groups, data collection methods, and procedures followed in data collection and analysis, validity and reliability of data, and ethical considerations.

The data generated through the data collection instruments seeks to answer the main research question, which is: What lessons can Zimbabwe learn from the successes and challenges of library consortia in Southern Africa and elsewhere to construct a model that will support the country's national development agenda?

This question will be answered through a quantitative and qualitative investigation.

5.2 Research design

The answers to the main research question are derived from the data generated through quantitative and qualitative investigation. Berg (2001) distinguished between qualitative and quantitative research, arguing that qualitative research referred to the meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things, while quantitative dealt with measurements. The two approaches were used to produce statistical and descriptive data. The combination of qualitative and quantitative approaches provides a better understanding of a research problem than either research approach on its own (Berg, 2001; Creswell, 2007; Fidel, 2008). Research design encompasses plans, procedures and the steps guiding data collection, analysis, and interpretation. Creswell (2007) states that the research approach provides an effective strategy to increase the validity of research. Norman (2006) defines research methodology as a broader term that encompasses "method" even though the two terms are often used interchangeably.

'Mixed methods' combine quantitative and qualitative techniques (Creswell, 2003; Fidel, 2008 & Creswell, 2007). Mixed methods research can also help bridge the schism between quantitative and qualitative research (Onwuegbuzie & Leech, 2004). This strategy was chosen to because it combines the strength of the two research approaches. It integrates quantitative and qualitative research methods in one study. The strengths of one approach offset the weaknesses of the other and together more comprehensive and convincing evidence can be generated (Creswell & Clark, 2011). May (2011) and Fidel (2008) view mixed methods research as a methodology that encompasses collecting, analyzing, and integrating (or mixing) quantitative and qualitative data in a single study. Such an approach incorporates qualitative and quantitative elements in such a way that they complement each other.

The researcher used this approach because it enabled a comprehensive evaluation of Zimbabwe's library consortia with regards to their special challenges and potential to contribute to national development. Data was collected from academic libraries subscribing to the Zimbabwe University Library Consortium (ZULC) and the College and Research Library Consortium (CARLC). Brief elaborations of these approaches follow below.

5.2.1 Quantitative Approach

The quantitative research approach is empirical in nature and referred to as the scientific research paradigm (Ochieng, 2009 & Fidel, 2008). Quantitative research approach focuses on the measures and counting of things. This approach is influenced by positivist philosophy while the qualitative research approach is anchored on an interpretivist paradigm. The use of measurements and statistics is central to quantitative research (Proctor & Capaldi, 2006). The measurements of quantitative research permit an overall description of phenomena in a systematic

and comparable way (Punch, 2009). Creswell (2013) identified the following as the strengths of a quantitative approach:

- Extremely efficient method for gathering information, especially for large groups of people;
- Appropriate when the researcher intends to collect large quantities of data (Denscombe, 2008);
- Results from sample surveys can be generalised to entire populations;
- High levels of reliability of gathered data due to controlled observations, laboratory experiments and other forms of research manipulations;
- Focuses on the quantification of concepts and their relationships via measurement; and
- Eliminates and minimises subjectivity of judgement.

Denscombe (2012) and Creswell (2013) identified the following as the weaknesses of the quantitative approach include:

- It does not provide an explanation of 'why?' because respondents are required to scale with options to choose from following ratings of "Excellent," "Good," "Fair," or "Poor.";
- Requires large sample sizes which translate into costs;
- Gaps in information - issues which are not included in the questionnaire, or secondary data checklist, will not be included in the analysis;
- Ignores the human element;
- Various kinds of information are difficult to obtain through structured data collection instruments, for example, feeling and experiences of respondents; and
- Reduction of data to statistics results in loss of vital information.

The quantitative approach was used nonetheless because of its strengths, especially because its procedures for data analysis can be codified to provide greater objectivity. Its weaknesses can be addressed by also using a qualitative approach. Jick (1979) and Patton (2002) state that through “methods triangulation” researchers can check on the consistency of findings generated by different data collection tools.

5.2.2 Qualitative Approach

Tewksbury (2009) argues that qualitative research and quantitative research are complementary. The addition of the qualitative approach enabled the researcher to probe more fully all the challenges of resource sharing among academic libraries in Zimbabwe. Ochieng (2009) described some of the strengths of the qualitative approach as:

- The data and the analysis are ‘grounded’ in and reflective of reality;
- It provides in-depth data because it can deal with intricate social phenomena;
- Qualitative research deals effectively with ambiguities; and
- It provides alternative explanations.

However, qualitative research also has the following weaknesses:

- The data may be less representative and more difficult to generalize to other similar instances (Denscombe, 2008);
- Interpretation of data is affected by the researcher’s identity, background, and beliefs;
- Meanings can be de-contextualised in the process of coding and categorizing;

- Proper analysis of text is time-consuming and has to grapple with complexities of social reality; and
- Ambiguities, which are inherent in human language, can be recognized in the analysis.

In spite of its weaknesses, the researcher added the qualitative approach because of its potential to dig deeper into the research problem, and in this way complement the quantitative approach.

5.3 Research Sites and Sampling techniques

The research sites for this study are academic libraries subscribing to the Zimbabwe University Library Consortium (ZULC) and the College and Research Library Consortia (CARLC). The researcher selected ten (10) members from ZULC and five (5) members from CARLC as research sites (see tables 1 and 2). ZULC was established in 2001, and in 2015 it had 15 member institutions (ZULC, 2015). Its vision is to be “A Leading Consortium in Empowering Teaching, Learning and Research in Southern Africa” (ZULC, 2015). Its work revolves around resource sharing, networking and advocacy to support national development.

Table 5.1: ZULC research sites

| ZULC research sites | |
|---|----------------------------|
| Institution | Location (Province) |
| Africa University | Manicaland |
| Chinhoyi University of Technology | Mashonaland West |
| Great Zimbabwe University | Masvingo |
| Harare Institute of Technology | Harare |
| National University of Science Technology | Matabeleland |
| Catholic University | Harare |
| Women's University of Africa | Harare |
| Midlands State University | Midlands |
| University of Zimbabwe | Harare |
| Reformed University of Zimbabwe | Masvingo |

CARLC was established in 2000 to support libraries in polytechnics and teachers' colleges to access electronic resources. Its main objectives are to improve library services to support learning, teaching and research in tertiary institutions.

Table 5.2: CARLC research sites

| CARLC research sites | |
|--------------------------------------|----------------------------|
| Institution | Location (Province) |
| Harare Polytechnic | Harare |
| Belvedere Teachers Technical College | Harare |
| Mutare Polytechnic | Mutare |
| Seke Teachers College | Harare |
| Kwekwe Polytechnic | Masvingo |

The research sites for this study were identified through contacts made during the annual Zimbabwe Library Association (ZIMLA) conferences and through purposive sampling techniques. These two steps provided the basis for selecting the research sites. The main aim of sampling is to get a representative sample. The sampling size affects the generalisation of the research (Connaway & Powell, 2010). The sampling procedure for the research study was guided by the basic characteristics of a population, objectives of the study; and data analysis and credibility. Sample design helped the researcher to choose part of the population to be the target groups. Blumberg *et.al.* (2011:168) states that sampling reflects the unit of analysis which describes the level at which the research is performed and target objects, for example, people or institutions. The authors further state that the compelling reasons for sampling include: reducing costs, enhancing accuracy of research, greater speed of data collection and availability of population elements. Sampling is important because it is seldom the case that a researcher has adequate time and resources to conduct research on all those individuals who could potentially be included in a study (Punch, 2005). The researcher drew samples from the research population which comprises the entire group of persons or set of objects and events the researcher intended to study.

5.3.1 Purposive Sampling technique

Purposive sampling is one technique often employed in qualitative investigation. With a purposive non-random sample the number of people interviewed is less important than the criteria used to select them. The characteristics of individuals are used as the basis for selection, most often chosen to reflect the diversity and breadth of the sample population.

Purposive sampling techniques are primarily used in qualitative (QUAL) studies and may be defined as selecting units (e.g., individuals, groups of individuals, institutions) based on specific purposes associated with answering a research study's questions. Maxwell (1997) defined purposive sampling as a type of sampling in which, "particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices"

Purposive sampling techniques have also been referred to as non-probability sampling or purposeful sampling or "qualitative sampling." As noted above, purposive sampling techniques involve selecting certain units or cases "based on a specific purpose rather than randomly" (Tashakkori & Teddlie, 2003a: 713). Several other authors (e.g., Kuzel, 1992; LeCompte & Preissle, 1993; Miles & Huberman, 1994; Patton, 2002) have also presented typologies of purposive sampling techniques.

The researcher used a purposive sampling technique because the sampling procedure provided for the choice of informants because to the special qualities they possess. Such a technique affords the researcher the freedom to choose the informants who will be able to provide the information because of their knowledge and experience (Bernard, 2006; Tongco, 2007; Flick, 2009). The research sample was derived from the sampling frame consisting of list of units making up the research population. The researcher included the chairpersons of the two library

consortia, and the application of this technique produced the target groups for this study.

5.3.2 Target groups

This study used a sample of 31 librarians in order to examine the development of library consortia in Zimbabwe, as well as their challenges, successes, and opportunities for contributing to Zimbabwe's national development initiatives. The sample came from ten (10) ZULC institutions and five (5) CARLC institutions.

5.3.2.1 ZULC library staff

A total of twenty (22) librarians were drawn from the ten (10) ZULC institutions. The reasons for selecting these respondents were:

- Level of involvement in the activities of the consortium;
- Longstanding experience with the library consortium;
- Representation of the university at ZULC meetings and participation in ZULC activities, for example, working groups; and
- In-depth knowledge and experience of the activities of ZULC.

5.3.2.2 CARLC library staff

The researcher chose nine (9) library staff from five (5) CARLC institutions. They included assistant librarians, and were chosen because of their:

- Activities in both CARLC and ZULC;
- Long experience and understanding of the differences between the two consortia; and

- Level of involvement with CARLC activities since its inception.

The ways in which the data was collected from these target groups are explained below.

5.3.3 Data Collection Instruments

The method for this study, which combines the quantitative and qualitative approaches explained above, is the survey method. The researcher relied on interviews and questionnaires as data collection tools, and also collected documents from the institutions relevant to the topic of investigation. Questionnaires and interviews are often used together since the former provide evidence of patterns amongst large populations, and the latter produces in-depth insights on participant attitudes, thoughts, and actions (Kendall, 2008). The researcher chose these data collection techniques because they are efficient, practical, feasible, and allow for in-depth investigation.

5.3.3.1 Interviews

The researcher interviewed the Head Librarians on issues relating to activities in ZULC or CARLC. This study made use of unstructured interviews (See Appendix, 2).

The interviews enabled the respondents and researcher to have direct communication that made it possible to capture verbal and non-verbal cues (Denscombe, 2012). The researcher allocated time for analysing the non-standard data generated through interviews. This was achieved through screening relevant from irrelevant data (Denscombe, 2012; Creswell, 2009; Chowdhury, 2008).

5.3.3.2 Questionnaires

A questionnaire refers to a group or sequence of questions designed to elicit responses relating to a subject, or sequence of subjects, from an informant.

Questionnaires provide standardized answers to the extent that all respondents are posed with exactly the same questions with no scope for variation. Questionnaires encourage pre-coded answers and this gives value to the data. Questionnaires can be distributed to dispersed respondents, but they also have disadvantages. Pre-coded questions can bias the findings towards the researcher's expectations rather than the respondent's way of seeing things. Pre-coded questions can be frustrating for respondents and deter them from answering. Questionnaires offer little opportunity for the researcher to check the truthfulness of the answers given by the respondents (Cohen, Manion & Morrison, 2007).

The researcher made use of questionnaires consisting of closed and open-ended questions. Closed questions confine the respondent to limited alternatives, while open-ended questions provide the respondent with an opportunity to state the case freely without limitations. After constructing the draft questionnaire, it was pilot-tested to check whether it would yield relevant result. This was accomplished by asking potential respondents to read it and identify any ambiguities or omissions that needed attention. The respondents were also asked to comment on the length, structure and wording of the questionnaire (See Appendix 1).

Collectively, the data collection instruments sought to generate information on:

- Bio-data of research respondents;
- Library consortium and membership;
- Models of library consortium and preferences;
- Library consortia impact;
- PERI and EIFL initiatives;
- Lessons from other consortia in other countries and in the Southern African region;
- Factors that contribute towards improving library consortia in Zimbabwe; and

- How library consortia can contribute towards Zimbabwe's national development programmes.

5.3.3.3 Other primary and secondary sources

The study examined documents generated by ZULC and CARLC, for example, annual reports, magazines and brochures. These documents therefore included primary and secondary sources. The primary documents are ZULC and CARLC minutes of meetings. The Annual Reports contain information on library services available, their challenges and opportunities, and strategic plans. Reports from both ZULC and CARLC enabled an insight into their historical development, as well as membership, vision, mission, objectives and goals. Blumberg (2011) defines secondary data as information or data already collected and recorded by someone else for other purposes. Information was sourced from websites and social media pages. The information generated from document analysis was useful in guiding the design of the data-collection instruments. The eIFL documents cover library consortia activities in Southern Africa. Other documents included the constitutions of ZULC and CARLC, and ZULC standards (2013).

5.3.4 Data coding, Analysis and Interpretation

The research instruments generated qualitative and quantitative data. The quantitative data was coded using SPSS while the qualitative will be coded according to themes identified. Data analysis and interpretation are described as the procedures followed by researchers to present, analyse and interpret findings, according to Creswell (2009). The researcher used SPSS computer programme to statistically analyse the data. The collected data underwent data cleaning through checking for inconsistencies and incompleteness of data. The classification was descriptive and numerical, for example, in the former it emphasized attributes with regards to designation, services provided, while in the latter it emphasized the

number of years the respondent occupied the current position, highest qualification, etc. Data analysis was done in order to compress the data into a convenient size that would give meaning and provide answers to the research questions.

5.3.4.1 Descriptive analysis

Descriptive data refers to numbers that are used to summarise data when conducting research. The researcher made use of response rates, frequencies, and graphical descriptions of data.

5.3.4.2 Thematic Analysis

The researcher used the themes that emerge from the quantitative and/or qualitative data in the coding and analysis. Braun and Clarke (2006) state that thematic analysis identifies analyses, and reports themes within the data. Thematic analysis enabled the researcher to organise and interpret several aspects relevant to the research topic.

5.3.5 Validity and Reliability

The researcher utilised quantitative and qualitative data collection techniques, namely questionnaires, in-depth interviews, and document analysis. Methodological triangulation was applied to validate consistency of findings. It revealed complementarily and inconsistencies of findings. The use of various data collection techniques helped to ensure that data generated would answer the research question fully and responsibly (McMillan & Schumacher, 2006). Measuring is critical in science because of the need to provide precise and accurate results of research (Punch, 2009). Reliability and validity are important and fundamental characteristics of any measurement procedure in scientific research. These two issues guided the research to produce competent and effective research. Validity is defined as the extent to which the instrument measures what it purports to measure (McBurney&

White, 2007; Punch, 2009). There is a large body of literature on external validity (McBurney & White, 2007), reliability (Joppe, 2000), construct validity (Walden (2012); and internal validity (McBurney & White, 2007; Saunders, *et al.*, 2009). The following steps were undertaken to ensure reliability and validity:

The researcher used a representative sample of the Zimbabwe University Library Consortium (ZULC) and the College and Research Libraries Consortium (CARLC), and data collection instruments were pre-tested to ensure that they would produce valid measurements. Coopers and Schindler (2010) argue that the pretesting or pilot testing is a critical activity for the successful development, evaluation and refinement of research instruments in research. Pilot testing helped to establish shortcomings and errors in questionnaire resulting from pre-testing, under actual conditions (Cooper & Schindler, 2010; Ngulube, 2005; Saunders, Lewis & Thornhill, 2007). The combination of closed and open-ended questions also improved reliability. The researcher used simple and straightforward language during the design of the questionnaire and interview schedules. The questionnaire used in this study gave the participants an opportunity to respond to the questions in their own time. As a result, participant error in this study was minimised and the researcher triangulated the data collected from the several instruments through cross-comparison for consistency and accuracy.

5.3.6 Ethical Considerations

Research carries with it certain obligations and responsibilities. It is important to uphold ethical norms when conducting a study that involves human beings as subjects. The investigation took into consideration the need to respect the rights of individuals and institutions to privacy and confidentiality. The following steps were undertaken by the researcher to ensure that due consideration was given to ethical considerations:

- After revising the instruments following pilot testing, they were submitted to the University of Pretoria Faculty of EBIT Ethics and Integrity Committee for approval, which was granted in 2013;
- Subjects were informed and made aware of the type of information the researcher wanted, why the information was being sought, and how it would directly or indirectly affect them. Consent was granted voluntarily and without coercion;
- The researcher avoided incentivizing respondents. Respondents voluntarily cooperated because they attached great value to the project;
- Approval and permission from the Zimbabwe University Library Consortium (ZULC) and the College and Research Library Consortium (CARLC) were granted by their Chairpersons (see Appendix 5);
- The researcher also sought the prior consent of research respondents and guaranteed their rights to confidentiality and anonymity;
- Research respondents were asked to sign consent forms prior to the commencement of the research; and
- All sources of information referenced by the researcher were acknowledged in observance of the principles of academic scholarship.

5.4 Limitations of the Methodology

The main limitations of the methodology are that:

- Generalisation in qualitative research can lead to transferring findings to different contexts to produce more general or abstract relations (Flick, 2006). The findings of this study are not directly applicable to other countries as contexts differ from each other; and
- This study used descriptive statistics, and the findings cannot be generalised to other consortia although they may offer general and helpful insights.

5.5 Summary

This Chapter justified and described the selected research design, research sites, target groups, sampling techniques, data collection instruments, validity, and reliability applied to generate data to answer some of the research questions set out in Chapter One. The Chapter also explained how triangulation will be applied, and it discussed the *modus operandi* for data collection and data analysis. Importantly, it noted the ethical challenges and compliance requirements met. The next chapter will report the response rates and will present, analyse, and interpret the data collected.

6 CHAPTER SIX: DATA PRESENTATION AND INTERPRETATION

6.1 Introduction

The aim of this chapter is to present, analyse and interpret meaningfully the raw data from the fieldwork. The data was obtained through questionnaires, interviews, and documentary evidence. The documentary evidence will be integrated into the analyses and interpretations wherever and whenever they support strengthen or contradict data from questionnaires and interviews. Taken together these sources of data and evidence will enrich the general discussion. The data addressing a particular theme, captured in the related questions put to respondents, are presented and discussed together. These themes and questions connect directly with the research questions of this study, as found in Chapter one. The qualitative and quantitative data are presented by means of graphs and tables, and the analysis and interpretation take the format of a discussion.

6.2 Analysis and interpretation of data

The researcher administered 31 questionnaires to 31 respondents, with a 100% response rate. The respondents, located at 15 academic libraries, consisted of ten (10) from ZULC and five (5) from CARLC (see Appendix 4). The purposive sample was drawn from academic libraries located in the ten provinces of Zimbabwe.

6.2.1 Location and number of responses

The researcher distributed nine (9) questionnaires to five (5) CARLC member institutions of which three (3) are located in Harare, one (1) in Mutare, and one (1) in the Midlands. Academic institutions subscribing to CARLC focus on Technical and Vocational education (TVET). The institutions offer tertiary courses in various

disciplines. Although CARLC members are located in the ten (10) provinces of Zimbabwe, there are more in Harare province because it is the capital city, and it has a higher concentration of tertiary education institutions.

Table 6.1: CARLC responses to the questionnaire

| Name of Institution | Location | Consortium | No of questionnaires returned |
|--------------------------------------|------------------|------------|-------------------------------|
| Seke Teachers College | Harare | CARLC | 2 |
| Kwekwe Polytechnic | Mashonaland West | CARLC | 1 |
| Belvedere Teachers Technical College | Harare | CARLC | 2 |
| Harare Polytechnic | Harare | CARLC | 2 |
| Mutare Polytechnic | Midlands | CARLC | 2 |
| Total | | | 9 |

The researcher also distributed questionnaires to twenty two (22) librarians at ten (10) ZULC member institutions, and all (100%) were returned. The contribution varies from, for example, 18.2%, n=4 for the University of Zimbabwe, to 13.6%, n=3 for the National University of Science and Technology (NUST), and 4.5%, n=1 for the reformed University of Zimbabwe. The following table reflects the questionnaire distribution and responses from ZULC members.

Table 6.2: ZULC responses to questionnaire

| Name of Institution | Location | Consortium | No of questionnaires returned |
|---|------------------|------------|-------------------------------|
| Africa University | Manicaland | ZULC | 2 |
| Chinhoyi University of Technology | Mashonaland West | ZULC | 2 |
| Great Zimbabwe University | Masvingo | ZULC | 2 |
| Harare Institute of Technology | Harare | ZULC | 2 |
| Midlands State University | Midlands | ZULC | 2 |
| The reformed University of Zimbabwe | Masvingo | ZULC | 1 |
| University of Zimbabwe | Harare | ZULC | 4 |
| Women's University in Africa | Harare | ZULC | 2 |
| Catholic University | Harare | ZULC | 2 |
| National University of Science and Technology | Bulawayo | ZULC | 3 |
| Total | | | 22 |

The following pie chart represents the same data for ZULC members.

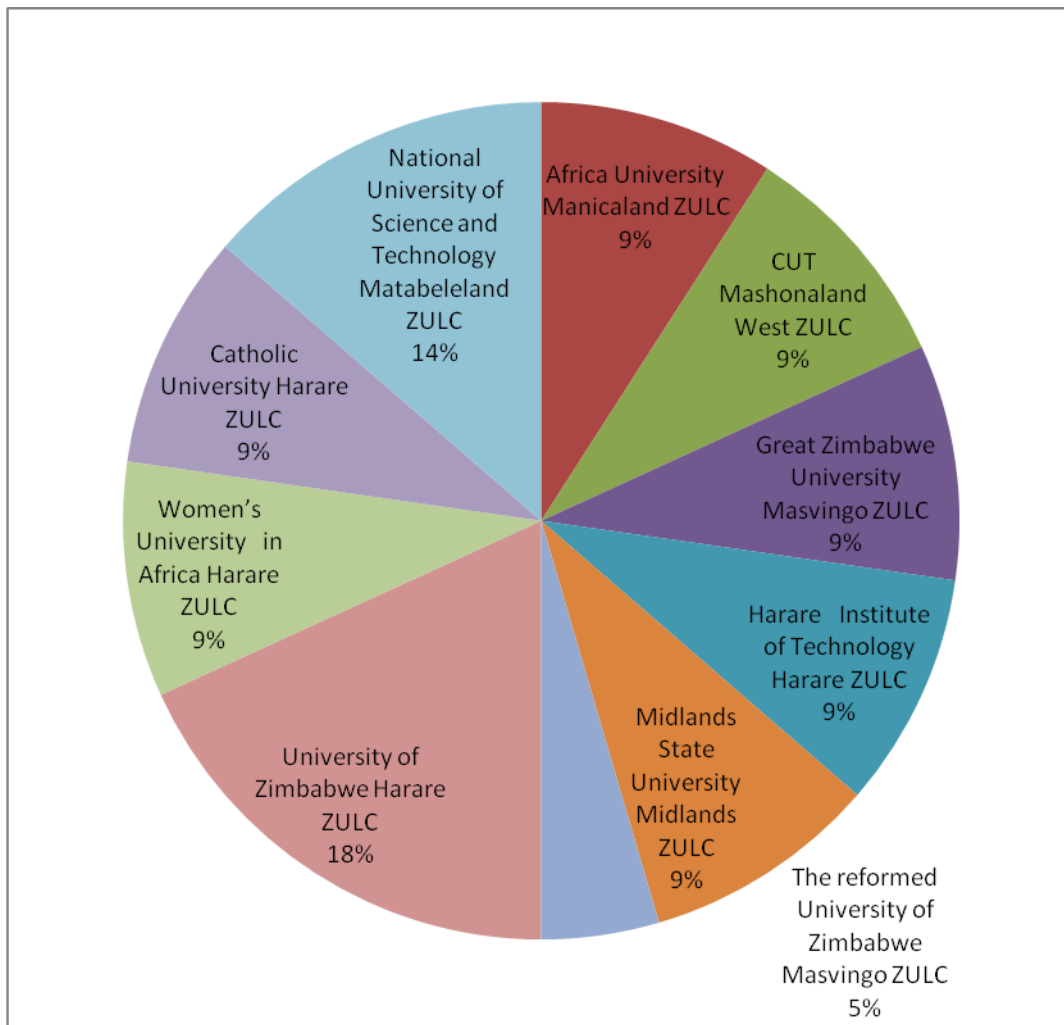


Figure 6.1: ZULC responses to questionnaire

The researcher distributed the questionnaires to ZULC member institutions in seven (7) of the ten provinces of Zimbabwe. Harare province has more consortium activity and membership. The five (5) universities in Harare are: Harare Institute of Technology (HIT), University of Zimbabwe (UZ), Women University of Africa (WUA), Catholic University and the Zimbabwe Open University (ZOU). The University of Zimbabwe (UZ) and the Zimbabwe Open University (ZOU) are among the original members of ZULC, while the rest joined between 2002 and 2015. The Zimbabwe

Open University (ZOU) was established in 1999, and is the only open distance learning (ODEL) institution in Zimbabwe.

6.2.1.1 Specify your rank by choosing from the following.

The ranks of the respondents from ZULC range from Senior Library Assistant (50.0 %, n=11) to Assistant Librarian (45, 4 %, n=10) to Deputy Librarian (4.5%, n=1). These ranks cover supervisory and managerial levels and are associated with levels of education and experience. The respondents are therefore actively involved in library consortia activities, and participate in various ZULC committees such as the electronic resource committee, the bibliographic services committee, the Information Technology committee, and the Advocacy and Marketing committee (ZULC, 2016).

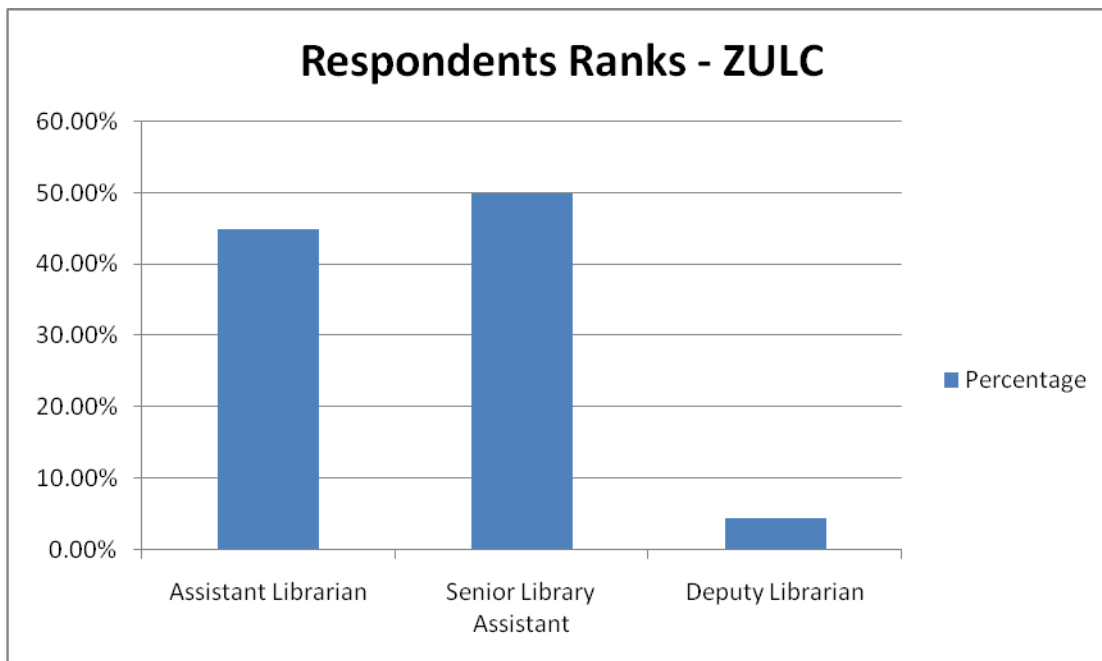


Figure 6.2: Respondent's ranks- ZULC

CARLC has a simpler structure than ZULC. The key ranks are Assistant Librarian and Senior Library Assistant, as indicated in the figure below.

For CARLC, an Assistant Librarian is at managerial level, while a Senior Assistant Librarian is at a lower level. There are 44% (n=4) of the CARLC respondents at the rank of Assistant Librarian, while the Senior Library Assistants comprise the rest (56%, n=5). These respondents are involved in CARLC working committees. From the researcher's observations, the ranks in CARLC member institutions are determined by experience. This differed from ZULC where the emphasis is on qualifications.

6.2.1.2 How long have you been in your current rank?

The researcher enquired about the duration the respondents have been in their current rank as a way of assessing their level of involvement and knowledge of library consortium activities. A total of (36%, n=8) of respondents from ZULC have been in their current position for between 3-5 years and (41%, n=9) have 6-8 years of experience, while (23%, n=5) have 9 years or more of experience. A cumulative percentage of 74%, (n=15) have more than six years of experience, ensuring stability and expertise in ZULC. Generally, more experienced staff are active in consortium committees.

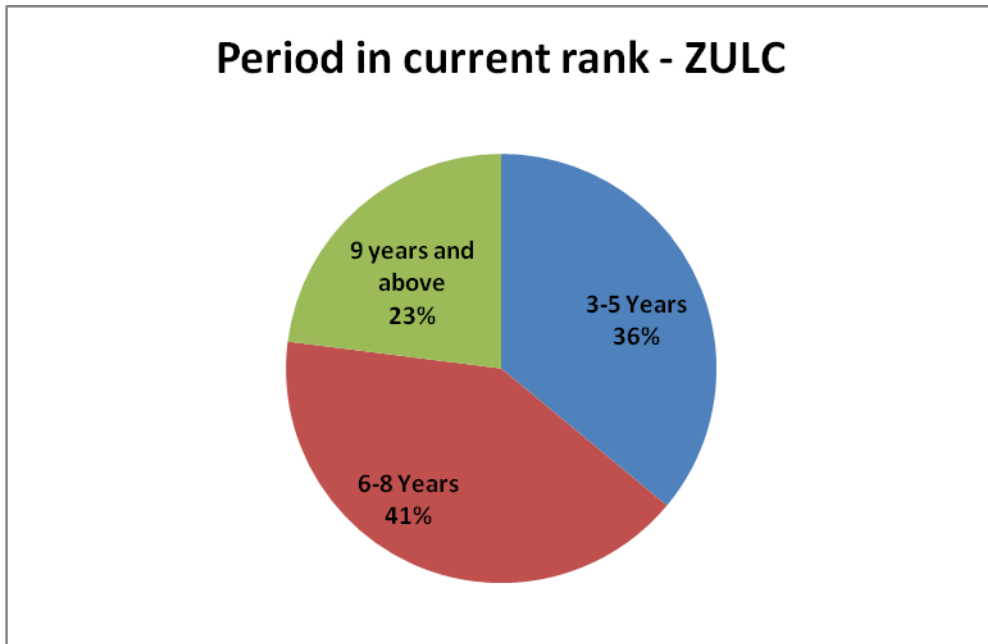


Figure 6.3: Period in current rank - ZULC

22% (n=2) of the CARLC respondents have between 3 and 5 years in their current position, while 33% (n =3) have between 6-8 years, and 45% (n=4) have 9 years or more experience.

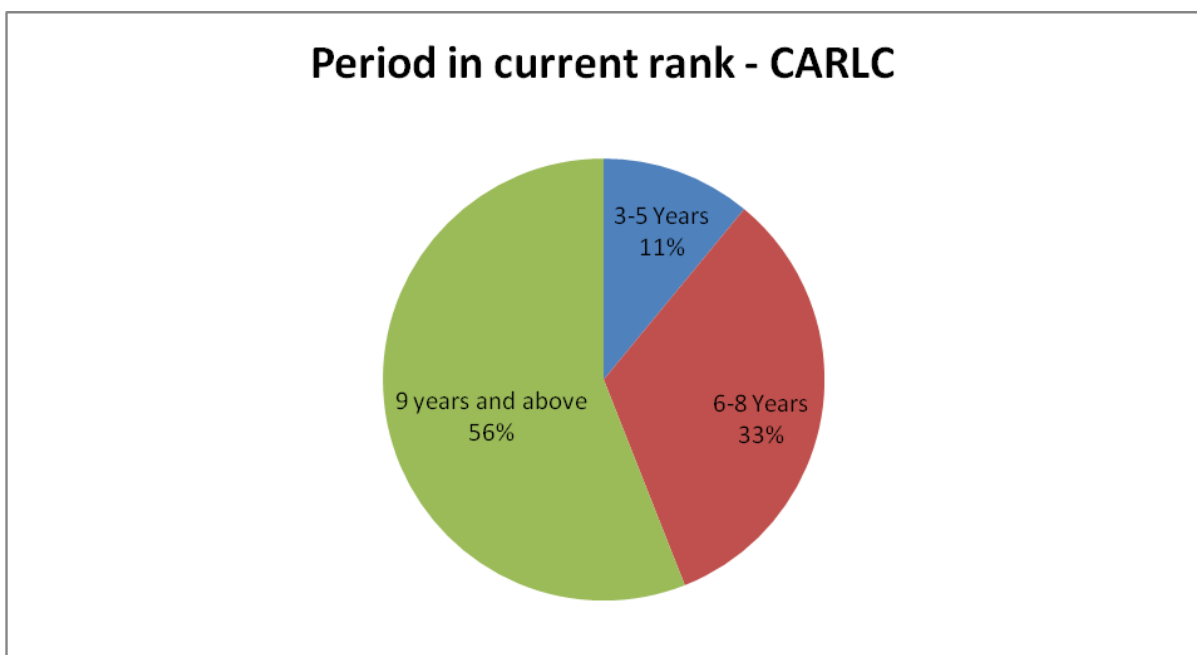


Figure 6.4: Period in current rank - CARLC

6.2.1.3 Indicate your highest qualification

Qualifications are critical because they determine position and status in an organisation, and enable authoritative articulation of topical issues among practitioners. A total of 17 ZULC respondents hold a Masters Degrees in Library and Information Science, and 5 have a Bachelors Degree in Library and Information Science. The high number of respondents with Master degrees can be attributed to personal motivation and the provision of Continued Professional Development (CPD). The Bachelors degree is the minimum qualification for Senior Assistant Librarian and Assistant Librarian ranks, and these respondents are involved in library consortium activities because they occupy managerial positions. Documentary evidence corroborates the prioritisation of higher qualifications in Zimbabwe (ZIMCHE Act, 2006, Section 19.1; ZULC standards 2014, section 1.1 &13). And because Higher Education institutions are accredited on the basis of fulfilling acceptable academic standards with regards to learning, teaching and research (ZIMCHE Act, 2006 section 19.1), the library plays a critical role.

In turn, membership of a library consortium strengthens the library's role. The following figure illustrates ZULC responses to the question on highest qualification.

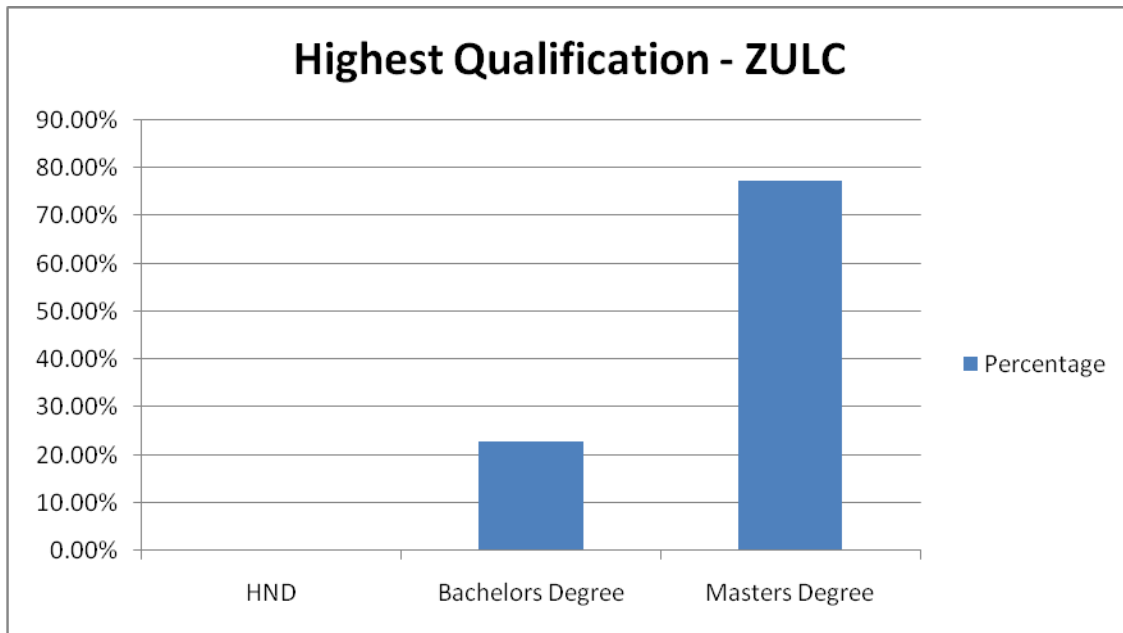


Figure 6.5: Highest qualification - ZULC

CARLC respondents have either a Higher National Diploma (HND - 78%, n=7) or a Bachelors degree (22%, n=2). The qualifications for CARLC members are set by the Public Services Commission, while those for ZULC members are based on ZIMCHE standards. CARLC member institutions typically recruit Polytechnic graduates with either National Diplomas or a Higher National Diploma in LIS. Polytechnics are beginning to actively participate in library consortia activities such as e-resource sharing, and collective bargaining or negotiations. Librarians actively participating in Zimbabwe's library consortium activities therefore possess at a minimum a Higher National Diploma in LIS, providing high-quality involvement in ZULC and CARLC working committees.

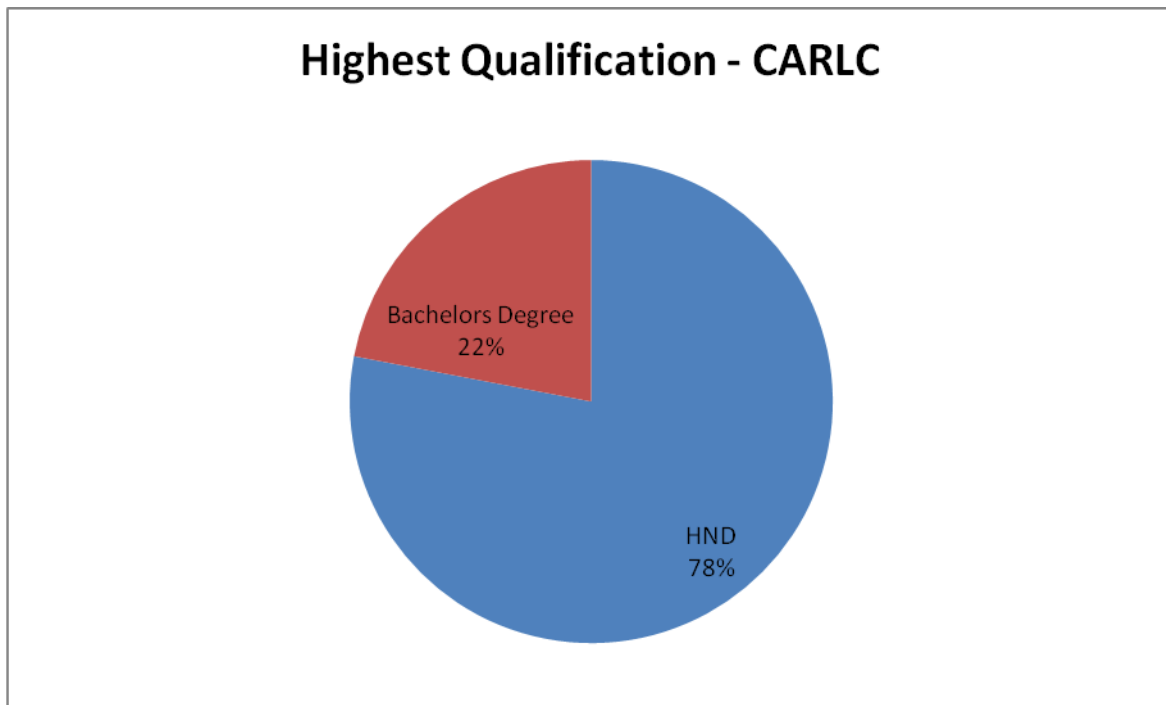


Figure 6.6: Highest qualification - CARLC

6.2.1.4 Indicate the reasons why your institution subscribes to a library consortium.

The researcher sought to find out whether respondents understood the reasons why their institution subscribes to a library consortium. The majority of respondents from ZULC (n=20) indicated that increasing costs was a primary reason for joining and subscribing to a library consortium. Documentary evidence on socio-economic conditions between 1999 and 2005 confirm the impact of Economic Structural Adjustments (ESAP) on social services (NUST Vice Chancellors Report, 2011; Makoni, 2000). Documentary evidence and responses from the interviews confirmed that ZULC was able to negotiate with UNESCO to use coupons as legal tender to purchase electronic journals during the hyper-inflationary period between 2007 and 2009 (Kadyamatimba & Tapfuma, 2014; Country Report, 2009). However, the rate for purchasing these coupons continued to rise, and made it possible for institutions to afford subscriptions to PERI resources (Country report, 2009).

ZULC respondents (n =15) also identified the growing demands of users, which is related to an increase in the number of new Science Technology Engineering and Mathematics (STEM) programmes (Herald, 2016). Satisfying the growing demands of users necessitates access to free electronic resources, which is possible as a result of the partnerships with EIFL and (NUST Vice-Chancellors Report, 2011, University of Zimbabwe Vice Chancellors Report, 2013). Discounts and subsidies were cited as another reason for joining library consortia. Publishers, for example, provide discounts to purchases done under the aegis of a consortium. Ten ZULC respondents indicated that they joined library consortia to cope with increasing information volumes, and the same number indicated they joined to access modern library technology, for example integrated library management systems.

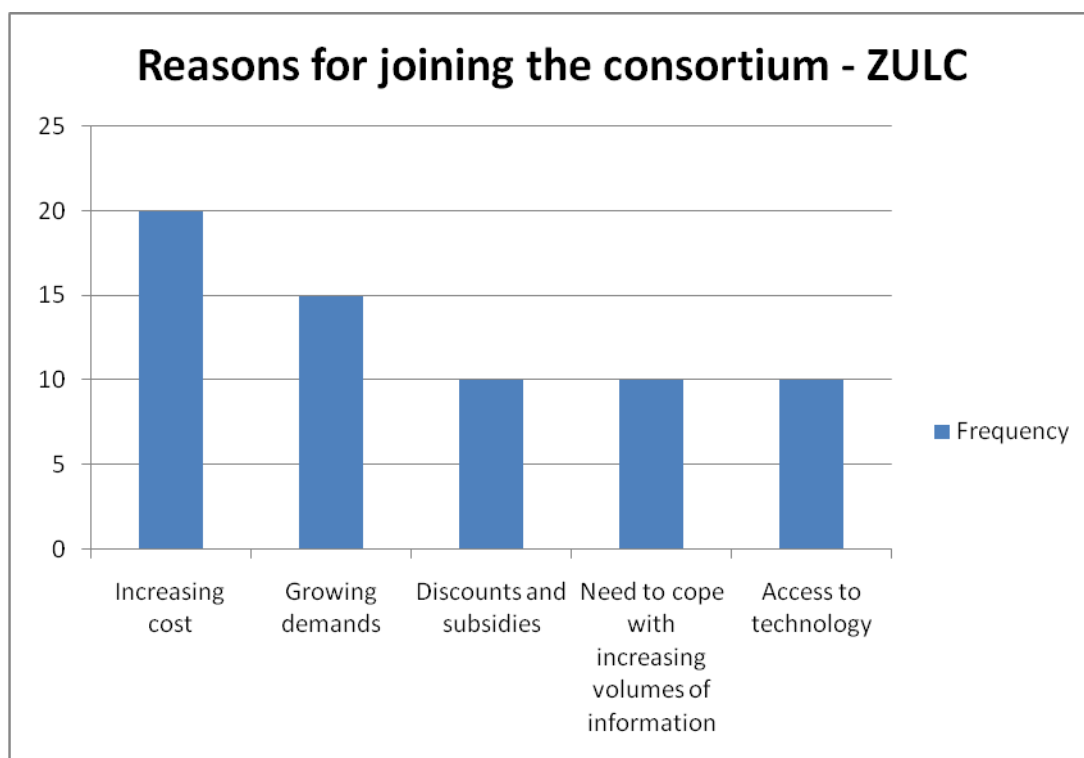


Figure 6.7: Reasons why ZULC members joined the consortium

The majority of CARLC respondents (n=8) indicated that they were compelled to join library consortia because of the ever-rising costs of library material and dwindling budgets. As another reason, three identified growing demands by users considering

the new courses and changes in the curriculum. Five indicated discounts and subsidies, although responses from interviews revealed that they did not really understand the concept and how they could benefit (see 5.3). Five also indicated the need to cope with increasing volumes of information, and access to technology as reasons for joining.

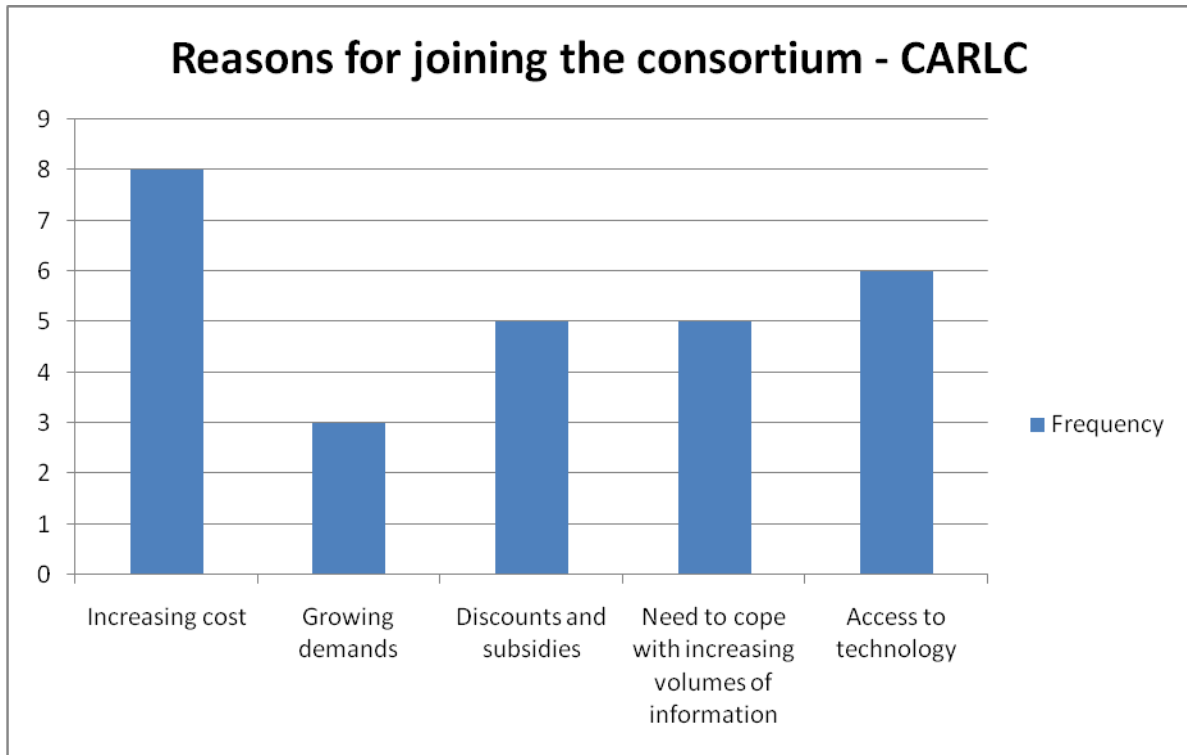


Figure 6.8: Reasons why CARL members joined the consortium

6.2.1.5 How long has your institution been a member of the consortium?

In this question that attempts to find out the duration of the respondents' membership of library consortia, it is important to note that three CARLC members also subscribe to ZULC as affiliate members. The data generated could be useful in validating institutional participation in library consortia activities. Twenty (90.1%) ZULC respondents indicated their institutions had been library consortia members for over ten years, while one (9.09%) has been a member for between five and ten years. The majority of ZULC members therefore have a long period of participation since its

formation in 2000, proving their extensive experience in consortium activities and their authoritativeness as sources on key areas for improvement.

One CARLC respondent indicated between 1 and 4 years as a member, while three have between 5 and 10 years, and five have more than ten years. Those institutions with more than ten years of membership are the original members, who were signatories to the formation of the consortium in 2000. The duration of CARLC membership relates to exposure and experience acquired. When compared with the amount of experience in ZULC, this explains why CARLC is lagging behind in the development of its website, revitalising its working committees, widening access to electronic resources, formulating standards, and engaging in practical developmental projects. As CARLC institutions attempt to transform into degree-awarding institutions, they could do well to draw on ZULC's experience to provide quality education (Chigogo, 2016).

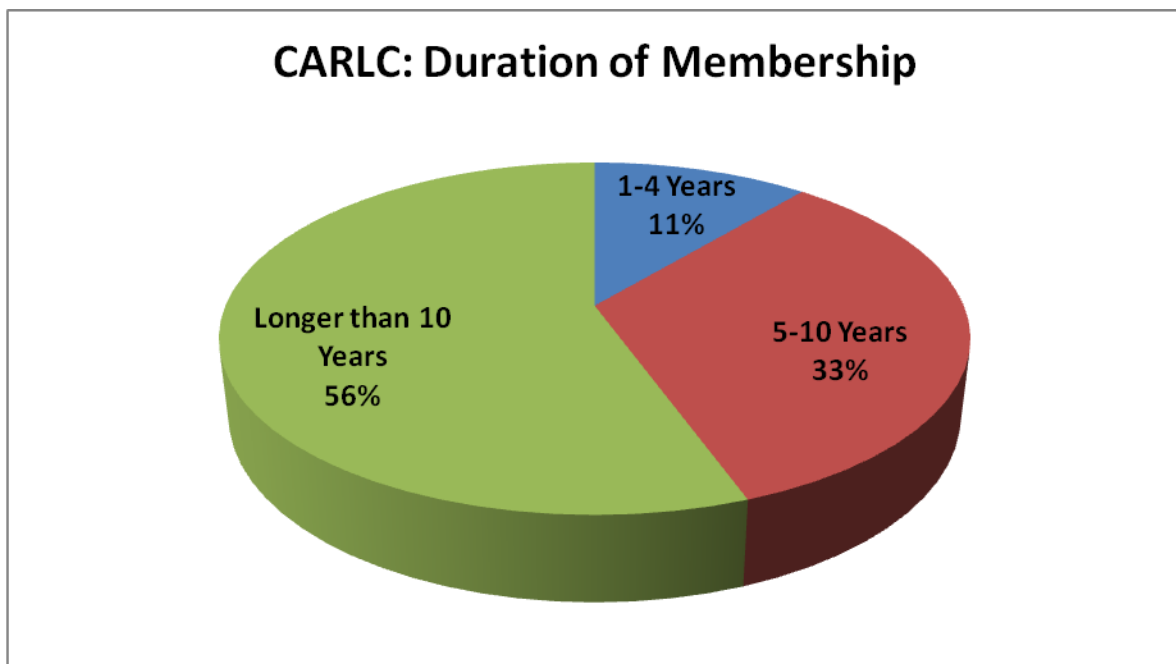


Figure 6.9: Duration of CARLC membership

Even though CARLC has been in existence since 2002, it has been largely inactive due to a lack of funding and coordination. This has resulted in some of its members

joining ZULC as affiliate members. The inactivity in CARLC has affected library development, and those with more than ten years' experience should play leadership roles in promoting collaboration and improving the quality of service in all the member institutions.

6.2.1.6 Indicate your response to the following: State funding is critical for the development of library consortia?

Funding is critical for library consortia development anywhere in the world, but given the special circumstances in Zimbabwe and the potential of the library consortia to contribute to its national development programmes, state funding is essential. Fifty four percent (n=12) of ZULC respondents strongly agreed on the key role of library consortium funding by the state. They attributed ZULC success so far to member subscriptions and donor support through the PERI/EIFL programmes, but this is not enough for further development and to achieve the full developmental role of the consortium. Forty one percent (n=9) agreed on the importance of state support for consortium activities. This is also a large number, which underscores a majority agreement on the indispensable role of the state. Only one indicated a neutral stance, identifying other factors apart from funding, for example, member commitment (see 5.3). Responses from interviewees reveal that the majority agree on the importance of state funding to develop library consortia.

Indicate your response to the following: State funding is critical for the development of library consortia?

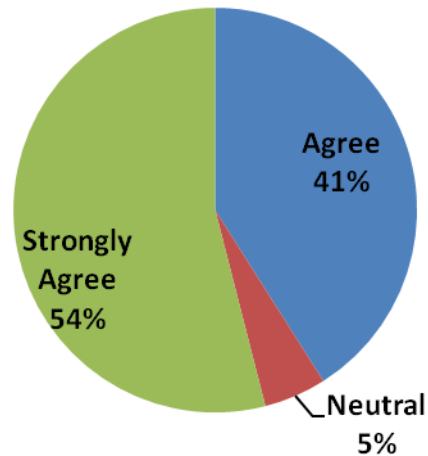


Figure 6.10: Responses on importance of state funding – ZULC

Documentary evidence reveals that state funding is critical for sustaining and developing ZULC, which has been self-funded since its inception in 2002 (Chikonzo, 2014). Moreover, the inactivity in CARLC can be attributed to the lack of funding and the lack of initiative to raise funds among members to develop the consortia. Eight CARLC members indicated that state funding was important for CARLC.

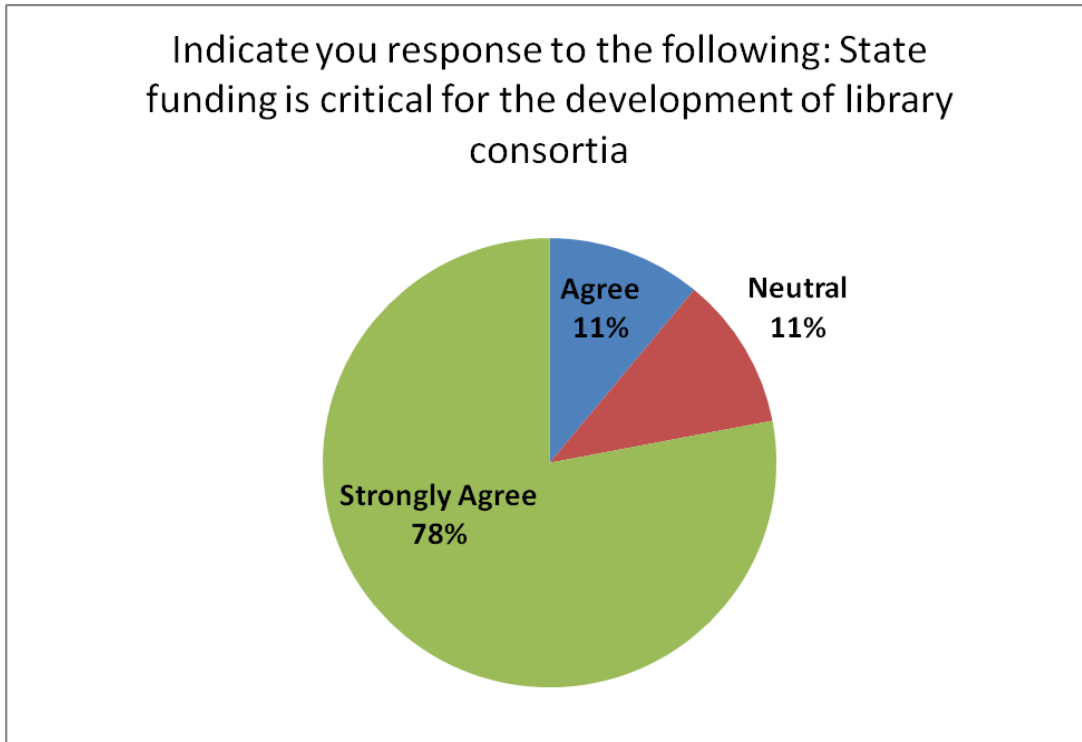


Figure 6.11: Responses on importance of state funding - CARLC

A cumulative percentage of 89%, (n=8) agreed or strongly agreed that state funding was critical for the development of library consortia. The reason why 11% (n=1) indicated neutrality may be because either they are not involved in any library consortium activities, or because of members' lack of knowledge about what library consortia can do to contribute to the country's national development programmes.

6.2.1.7 Which library consortia models are suitable for Zimbabwe?

Zimbabwe currently has a sectoral (academic) consortia model, and this question sought to discover the respondents' level of understanding about the kinds of models, as well as the level of consensus on which model is the most suitable for the future of Zimbabwe. Respondents from ZULC chose several consortium models.

2.7% (n=5) indicated preferences for the multi-type model; 36.3% (n =8) indicated a preference for the sectoral model; 9.01% (n=2) preferred regional, 22.7% (n=5) preferred national, 9.09% (n=2) preferred all of the above except regional, and there was 0% for others. High percentages of respondents (22.7.0%,n =5) and (22.7%, n=5) indicated that they preferred a multi-type and national library consortium models implying some level of understanding that Zimbabwe's different types of libraries would benefit from a comprehensive model, and that this would assume a national scope. At the same time they probably did not understand the differences between national and regional models, for which there is an equal number of responses. Respondents explained during interviews that a multi-type library consortium through collaboration would best suit and fulfill the interests of all the libraries in Zimbabwe and contribute to the country's national development programmes.

A total of 36.3% (n = 8) ZULC respondents indicated they preferred a sectoral library model. In the interviews they explained that if different types of libraries organise themselves into sectoral consortia, this could be a basis for developing a national library consortium. This reflects confusion about the multi-type, sectoral and national models. A total of 9.09 % (n=2) stated that Zimbabwe needed all the models, namely multi-type, sectoral, regional and national library consortia. It is clear that there is a sense that all types of libraries should benefit from resource sharing, but this is not given the clearest expression in the choice of consortium model to achieve this goal.

Unsurprisingly, a similar pattern of responses was found in the CARLC responses. 22.2.0% (n =2) indicated the multi-type model as the preferred choice. 5.5% (n=5) indicated a preference for a sectoral library consortia model, and 22.2% (n=2) indicated a preference for a national library consortia model. The following bar graph indicates the ZULC responses.

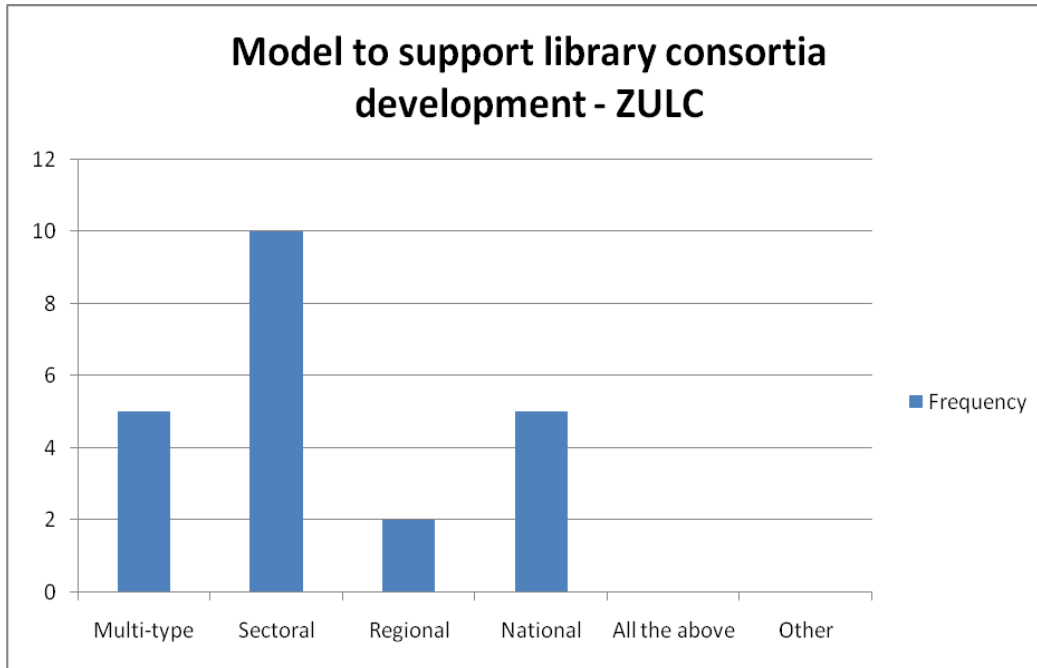


Figure 6.12: Models to support library consortia development – ZULC

The following pie-chart also illustrates responses on models to support library consortia development.

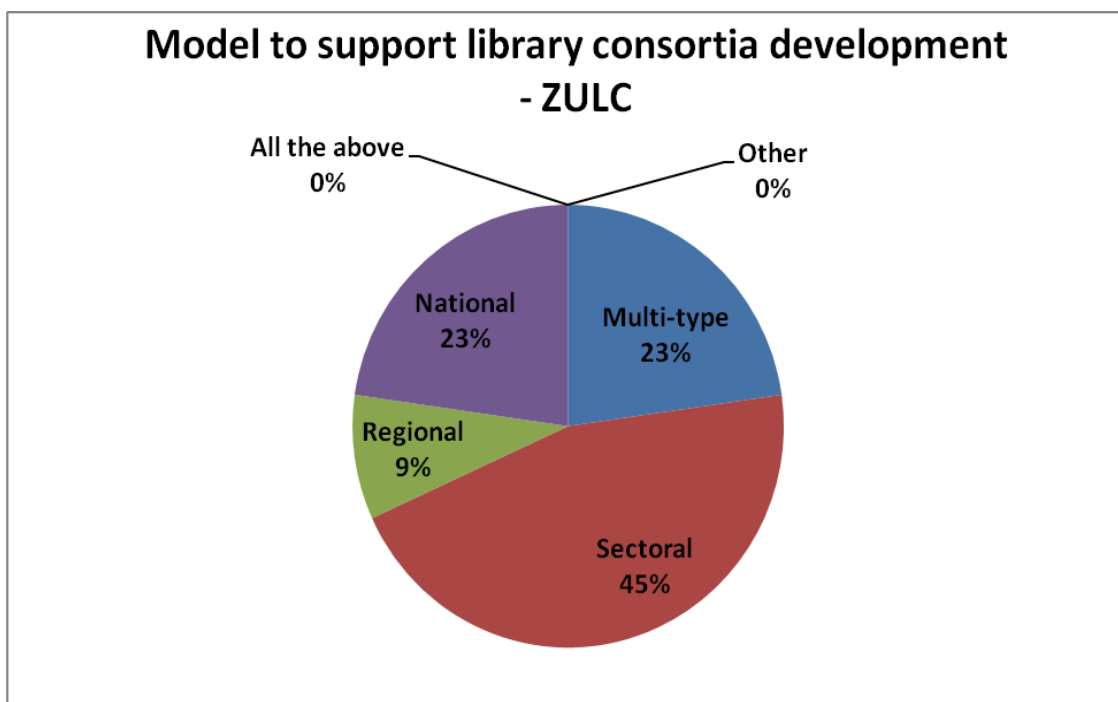


Figure 6.13: Models to support library consortia development - ZULC

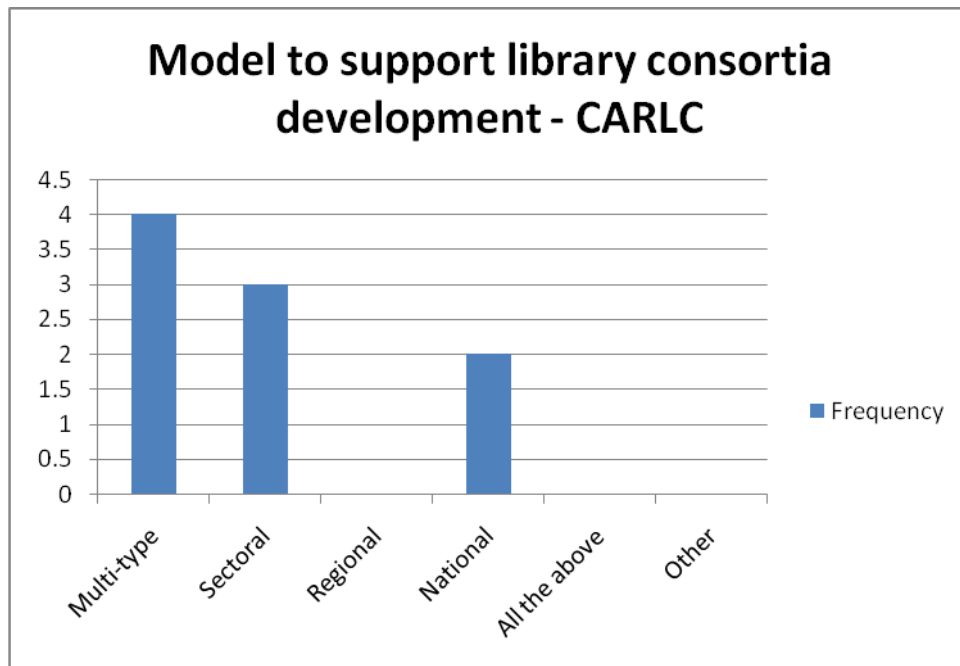


Figure 6.14: Models to support library consortia development - CARLC

6.2.1.8 What benefits does your institution derive from membership of the library consortium?

This analysis consolidates the responses for both CARLC and ZULC. The purpose for this question is to consider whether the benefits for CARLC and ZULC could be extended to other types of libraries to contribute to Zimbabwe's national development programmes. Two (n=2) respondents indicated that they were benefiting from resource sharing. Documentary evidence shows that resource sharing has built from traditional inter-library cooperation dating back to the twentieth century (Chiparaushe, 2014). Modern technology has made library resources more accessible, and two (n=2) acknowledged the benefits of Online Public Access Catalogues (OPACS). They indicated that more members of their library consortium were now accessing e-resources, ranging from full text to bibliographic databases. Opportunities for collaboration as a benefit also had two (n=2) responses, and improved quality of library services had seven (n=7) responses.

A cumulative number (n=15) of fifteen respondents indicated benefiting from resource sharing, ease of use of resources through OPACs, opportunities for collaboration, improved quality of library services, and opportunities to network and develop as a group. Group purchases were also indicated, and evidence from site-visit observation and documentary evidence confirmed that institutional websites have digital reference tools, custom search facility and RSS feeds along subject lines. What is of cardinal significance is that respondents agreed that these benefits should be extended not just to other academic libraries but to all of the libraries in Zimbabwe in order to promote the country's national development programmes.

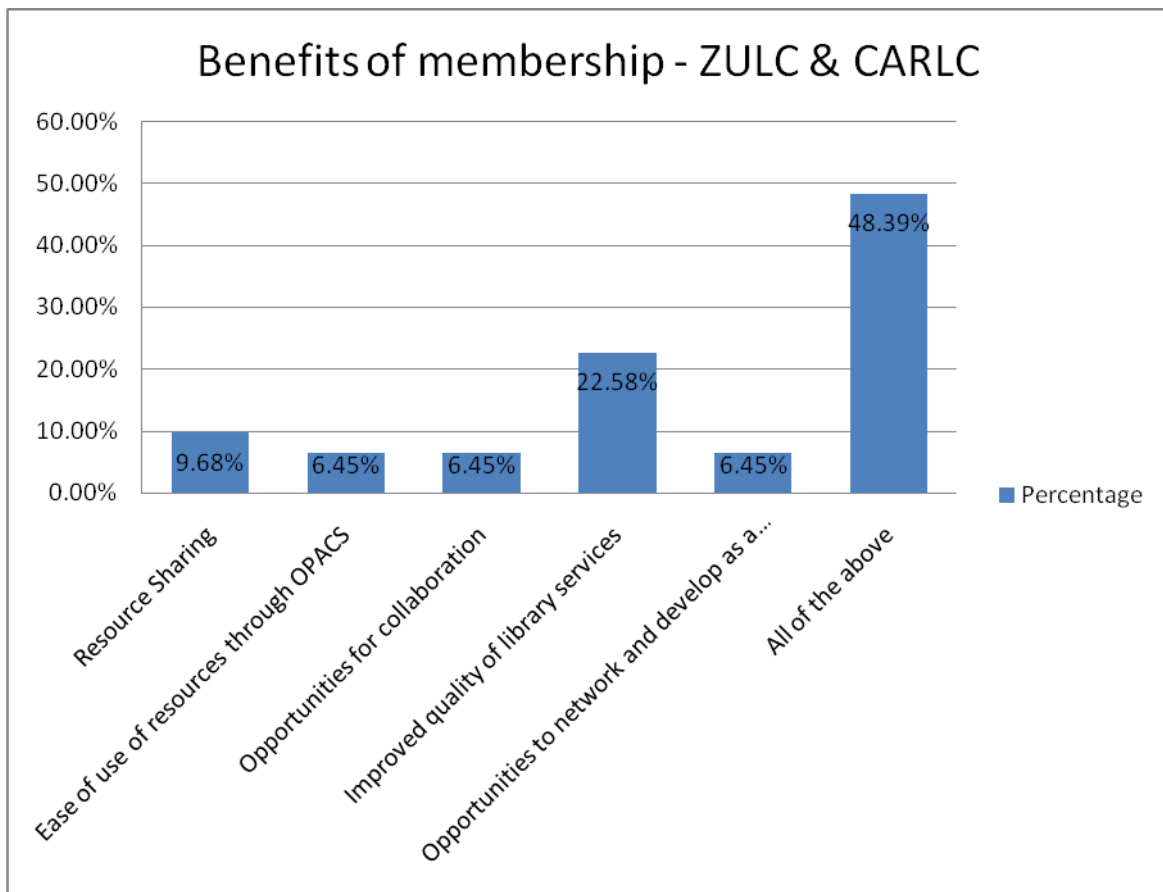


Figure 6.15: Benefits of membership

6.2.1.9 Using the space below explain briefly what you think needs to be done to strengthen Zimbabwe's library consortia?

With regards to this question, the following key issues were raised by respondents with regard to strengthening ZULC and CARLC:

- Respondents indicated that the effectiveness of a library consortium will be strengthened by teamwork among institutional members, thus committing them to the vision and goals of the consortium. Furthermore, library consortia can be strengthened by focusing on member interests. There should be effective and efficient management of membership levels. For example ZULC has full membership and affiliate membership, and these levels should be clearly defined to prevent ambiguities;
- Policies about governing structures and regulations are important to properly and effectively utilise human capital, intellectual and structural assets. In this respect, respondents pointed out that the development of institutional repositories and the Networked database of Electronic Theses and Dissertations were transforming the roles and titles of librarians with regard to content management. Policies were critical in guiding decision making about the management of content, and negotiating deals with content and internet service providers;
- Knowledge Management strategies are critical for the success of library consortia and academic libraries. While some member institutions have these in place, others do not. Unwritten or implicit policies with regard to how research output and other intellectual products should be managed is not ideal, and there should be clear and explicit strategies;
- Training members in electronic resource licensing, copyright and fair dealing with regard to e-resources should be prioritised; and
- Other areas for strengthening the consortia relate to metadata standards and accessibility and resource sharing.

6.2.1.10 How often does your consortium provide opportunities for Continuous Professional development (CPD)?

The researcher compared the two consortia with regard to opportunities for Continuous Professional Development (CPD). Responses from the two consortia memberships indicated that both valued such opportunities greatly. Continuous Professional Development (CPD) is a key feature on the calendars of academic library consortia. Respondents indicated that opportunities for training and education help to strengthen library consortia through equipping members with knowledge and skills to appreciate, initiate, evaluate and monitor projects. All the respondents indicated that they were given more than two opportunities to benefit from continuous professional development programmes through ZULC. Two (n=2) indicated that they have had such opportunities twice per year; five (n=5) indicated three times per year; seven (n=7) four times per year; and six (n=6) indicated five times or more per annum. The responses confirm that continuous professional development was common among the member institutions and consortia.

EIFL (2016) documentary evidence confirmed that ZULC is ahead in providing opportunities for continuous professional development (CPD) covering topical issues, for example:

- consortia building;
- institutional repositories (IR) and Open Access;
- e-resource use and licensing and negotiation;
- Open linked data; and
- Digital literacy.

Documentary evidence from annual institutional reports also confirmed that continuous professional development occurred on a regular basis among members of ZULC.

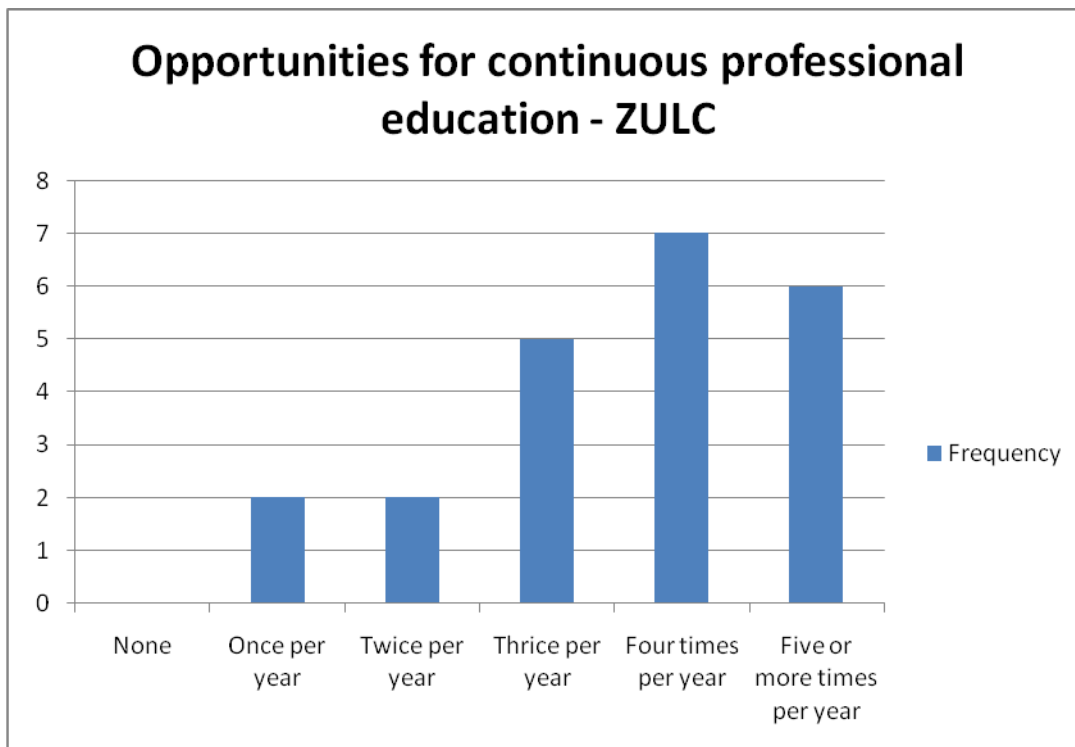


Figure 6.16: ZULC - Opportunities for continuous professional development

For CARLC six (n=6) indicated at they were given an opportunity for continuous professional development relating to libraries by their consortium once annually, while two (n=2) indicated thrice annually. Those with the highest percentage (n=6) include CARLC members who also subscribe to ZULC. They are afforded the opportunity to benefit from ZULC programmes such as workshops, conferences and education and training programmes. CARLC programmes for continuous staff development still focus on automation and integrated library management system

use. ZULC on the other hand has moved beyond the basic technological levels to focus on open access, licensing and negotiating.

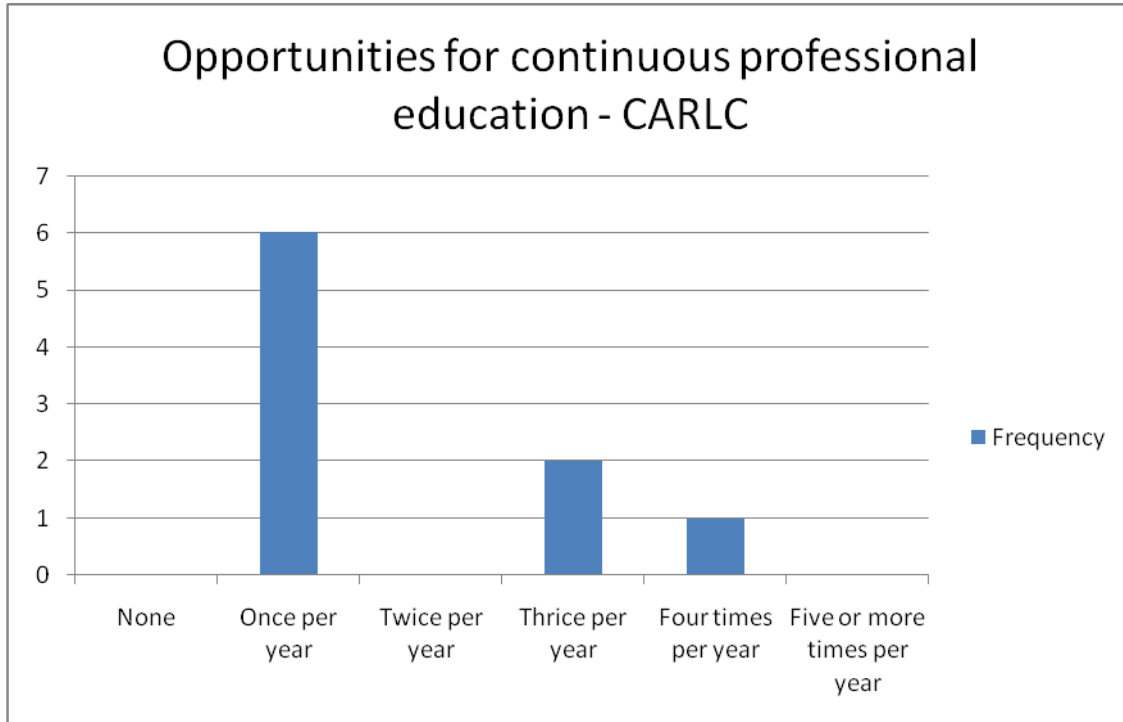


Figure 6.17: CARLC - Opportunities for continuous professional development

ZULC provides more opportunities than CARLC because of its longer experience and effective lobbying for member subscriptions, as well as external support. CARLC has not benefited from such funding opportunities. ZULC has also initiated innovative programmes, for example convening conferences and using the fees to raise capital to conduct and invest in staff development. ZULC is currently undertaking a number of projects in collaboration with donors, and this requires staff to be trained continuously to ensure project success - for example, digitization, licensing, and open access initiatives.

6.2.1.11 How can consortium development be accelerated to contribute to Zimbabwe’s national development programmes?

This open-ended question yielded an overwhelming consensus that learning from the successes and challenges of consortia in other parts of the world will accelerate development, and provide useful lessons for Zimbabwe. ZULC respondents (n =16) indicated there was need to develop and strengthen sector-specific library consortia before embarking on a project to develop a national library consortium relatively similar to SANLiC. This consortium is registered as a not-for-profitmaking company with a governance and management structure, appointed directors, chairperson, deputy chairperson, treasurer, and the Director responsible for the strategic direction and implementation of the strategic plan. The ZULC respondents indicated that their consortium should assist specific library sectors to establish and develop library consortia. Representation from various sectors should constitute an organizing committee to establish a national library consortium for Zimbabwe that will achieve the benefits found in other countries. SANLiC, for example, facilitates affordable access to scholarly communication through brokering access to site licenses (SANLiC, 2016). INFLIBNET in India has a governing council and governing body, and it is building committees for operational activities responsible for strategic direction and for management of financial capital. The analysis of lessons to be learned from the successes and challenges in other countries can be found in Chapter 6.

6.2.2 Summary analysis of interview responses on key themes

Since some interview responses have already been incorporated into the questionnaire analysis, this section presents a summary analysis of the most important general insights relating to key themes of the study. The researcher used a semi-structured interview schedule. The researcher interviewed ten librarians occupying the highest ranks in the samples - ZULC (50%, n=5) and CARLC (50%, n=5; see 4.4.1& appendix 2). These individuals served as library consortia board members. In general, the interviews elaborated, enriched, and corroborated the

questionnaire, observation and documentary data, adding weight to the overall analysis and interpretation.

The researcher made appointments with all ten respondents, and each interview lasted for an average of one hour. Interviewees answered some of the questions on the questionnaires, and these were not replicated in this analysis. Consequently, interviewees were asked to comment on five (5) themes, but other follow-up questions helped in probing for more detail. The analysis will present each theme accompanied by the responses and ensuing discussion.

6.2.2.1 Reasons for joining a library consortium?

ZULC and CARLC interviewees highlighted a number of key reasons or stimulants for joining a library consortium, namely dwindling library budgets, publishing and self-archiving, the information explosion, growing user needs, technology, standards and quality assurance, and the future of library development. Documentary evidence confirms that the hyper-inflationary environment after 2000 made it difficult for institutions to support academic libraries (Ndlovu, 2011). The interviewees agreed that the decline in library budgets since the beginning of the twenty-first century had driven them to unite as a consortium to benefit from economies of scale through discounted group purchases of electronic content. They indicated that through the library consortia approach they were able to address the complex challenges and opportunities of the digital era.

They were able to strategise as a group and respond to the dynamic needs of users. They confirmed that they were able to benefit from accessing a wide selection of electronic resources. Documentary evidence validates that through membership of ZULC uninterrupted access to electronic content is almost guaranteed (Chikonzo, 2014). The interviewees also indicated that ICTs made it possible for users to access library material accessible in multimedia formats. Evidence from documents confirm how ICTs have revolutionised user expectations and their insistence on quick and convenient access to relevant research content. They indicated how ICTs benefited

users to access alternative sources of scholarly material from open access and subscription databases

Evidence from documents also confirm that all ZULC members have access to internet, wi-fi connectivity, OPACs, subscription to electronic databases and institutional repositories (IRs). A number of interviewees also confirmed that through cooperation and resource sharing projects, consortium members can afford to access bibliographic and full text resources at a reasonable cost. Some interviewees confirmed benefitting from discounts and negotiable rates for electronic resources. They corroborated that the consortium approach benefited them since publishers were eager to enter into library purchasing deals with library consortium at negotiable rates through “Big Deal”. Many confirmed that they joined a library consortium in order to benefit from the increasing range of access to quality library materials through EIFL and -PERI’s country-wide subscription programme.

The interviewees indicated that access to quality scholarly communication added value to research work. They concurred that access to quality research improves the quality of research output. Documentary evidence substantiates an improvement in quality of research due to efforts of the consortium (Chikonzo, 2014).

ZULC provided them with a platform to share best practices and the chance to work together towards improving library services, and to analyse, interpret and plan for the future trajectory of library development.

A critical factor for membership of ZULC was the economic challenges resulting in decline in support for academic libraries between 1997 and 2008. The twenty-first century and subsequent information explosion and increase in cost of subscriptions to scholarly content made it critical for academic libraries to come together as a consortium in order to better provide for the diverse growing needs of users.

6.2.2.2 Benefits of library consortium membership

ZULC and CARLC interviewees indicated that beyond the reasons for joining a library consortium, there were ongoing benefits from membership. They noted that library consortium membership had enabled them to redefine themselves as inter-institutional organisations, rather than stand-alone institutions. Interviewees revealed a number of benefits, for example:

- shared costs and relatively affordable access per institution (ZULC);
- ability to negotiate reasonable rates for subscriptions (ZULC);
- opportunity for collective negotiations (ZULC);
- provision of training and education (CARLC & ZULC);
- shared responsibility through provision for consultations;
- convenient access to e-resources (CARLC & ZULC);
- building collaborative collections (ZULC);
- developing shared policies and procedures (ZULC & CARLC); and
- standardization (ZULC)

CARLC members acknowledged that they still had to achieve the full potential of inter-institutional collaboration by re-organising their consortium, so that it becomes as viable as ZULC, or consortia in other countries.

6.2.2.3 How to strengthen Zimbabwe's library consortia

ZULC interviewees indicated that their consortium had succeeded in creating, formalising and sustaining operations since its inception in 2002. These include providing access to e-resources; creating a platform for networking; formulating

standards; promoting research through workshops, seminars and symposia; formulating collection policies for physical and e-electronic resources; establishment of Institutional repositories; registration of IRs with the Directory of Open Access Repositories (OpenDOAR); conducting advocacy campaigns to promote the open access initiative and development of open access; achieving economies of scale through partnership with EIFL.net and ; and increasing membership. Documentary evidence attests to ZULCs success as a self-funded library consortium (Chikonzo, 2014).

Despite all ZULC members having ETDs visible through IRs, only six (6) university IRs are ranked by the Web of World repositories ranking (Ranking of Web repositories, 2016). They are therefore aware that their consortium also face numerous challenges. For example, currently, resource sharing among members was more at the level of interlibrary loans. ZULC and CARLC members are engaged in resource sharing still based on the old model, for example institutions can enter into an official and legally binding agreements to share, exchange and move library resources amongst themselves for the benefit of users. Library consortia can use this opportunity to strengthen cooperation and devise more innovative strategies to improve resource sharing to incorporate shared collection development and storage. Collection development was individualized even though attempts to exploit consortial acquisitions are affected by varying stages of development and range of programmes offered by different members of ZULC. Interviewees also indicated that different institutional cultures could be exploited as an opportunity to build diversity.

Interviewees from both consortia indicated that funding for library consortium activities was still low, hence the need to seek alternative ways of funding. ZULC and CARLC have similar challenges, which can be addressed through collaboration. The interviewees indicated that ZULC and CARLC members have varying bandwidth levels ranging from 50Mbps for smaller institutions to 155Mbps for bigger institutions (for example, the University of Zimbabwe (UZ) is at 5-20Mbps, the National University of Science and Technology (NUST) is at 100Mbps, and CARLC's Harare Polytechnic is that consortium's highest at 30Mbps. ZULC interviewees

revealed that there was a project by ICT Directors in Zimbabwean Universities to create a National Research and Education Network (NREN). This NREN will improve internet connectivity for member institutions. Interviewees indicated that the project would give library consortia easier, faster and more reliable access to Internet and web based resources.

6.2.2.4 Suitable library consortium models for Zimbabwe

ZULC interviewees indicated that Zimbabwe needed a national library consortium to coordinate subscription to electronic resources for the benefit of all types of libraries. They indicated that sector-specific library consortium can co-exist with a national consortium, as was the case with SANLiC in South Africa. They indicated that the consortium approach marked the new era of collaborative survival for libraries in Zimbabwe. Their consortium would be willing to contribute towards the development of a national library consortium to enable all libraries to access electronic resources.

CARLC interviewees indicated that Zimbabwe needed a multi-sector or multi-type mode to benefit all libraries. They indicated that even though a sector-specific consortium benefits a specific sector, there was need to think holistically to accommodate all types of libraries.

6.2.2.5 Consortia and Zimbabwe's national development programmes

ZULC interviewees believe that their libraries should justify their existence beyond resource sharing. They indicated a need to explore shared licensing, storage, and continuous staff development. They also mentioned the need to embark on innovative projects, for example providing training to stakeholders and lobbying for a network of library consortia in Zimbabwe. ZULC's strategic plan for 2014 to 2018

has as its vision is to be “A leading consortium in empowering teaching, learning and research in Southern Africa” (ZULC, 2016). This aspiration hints at national, even regional, development goals with regards to human capital development. It also hints at value addition and beneficiation, a ZIMASSET cluster. There is moreover a recognition of the Sustainable Development Goal of providing quality education. ZULC’s strategic concerns are about governance, sustainable funding, capacity building, technological development, changing user needs, collaboration and partnerships, fundraising, and the socio-economic and political environment (ZULC, 2016). The researcher could not access a physical copy of CARLC’s latest strategic plan. CARLC interviewees indicated however that they looked forward to contributing towards developing their consortium for the benefit of member libraries. They looked forward to be members of a progressive CARLC within the next five years.

ZULC and CARLC interviewees spoke of similar challenges that can be addressed through collaboration, but they also hinted at larger goals that connect them to the national development programmes of Vision 2020 and ZIMASSET. There was reasonable consensus that much can be learned about the way forward on this matter by learning from the successes and challenges of other consortia.

6.3 Summary

The analysis and interpretation of the data from questionnaires, interviews, and documentary evidence throw light on some of the research questions in chapter one. The future direction of library consortia development in Zimbabwe will however continue to be affected by developments taking place regionally and internationally. The next chapter will take up the interviewees’ recommendation that learning from the successes and challenges of consortia in other parts of the world will help accelerate Zimbabwe’s consortia development to support its national development programmes. From that analysis and the data produced in this chapter, a suitable model for the future development of library consortia in Zimbabwe to support its national development agenda will emerge more clearly.

7 CHAPTER 7: SUCCESSES AND CHALLENGES OF LIBRARY CONSORTIA IN AFRICA AND OTHER PARTS OF THE WORLD

7.1 Introduction

This chapter analyses the successes and challenges of library consortia, focusing on selected countries in Southern Africa, Africa, and outside Africa. This analysis will list and discuss these successes and challenges as lessons for Zimbabwe to learn for accelerating the development of the country's library consortia. The chapter will also derive the main features from this discussion for constructing a suitable library consortia model for Zimbabwe to support its national development agenda. In analysing the successes and challenges of library consortia, the researcher will make cross-references to other chapter sections for background and context.

7.2 Successes and challenges of library consortia in Southern Africa

Data collected, analysed and interpreted in Chapter five (6) indicates that the successes and challenges of library consortia are underpinned by a number of factors, for example, the lack of funding and commitment, institutional and inter-institutional politics, as well as poor planning and coordination. The following section will highlight the successes and challenges for Southern African countries (see 1.2, 2.3, 2.7.3.4, 3.3, & 6.2.4).

7.2.1 Malawi

The Malawi Library Information Consortium (MALICO) was established in 2003 as a consortium of organisations that combine talents and resources to promote and deliver library and information services for Malawi, and the global community. It is the only library consortium in Malawi (see 3.3).

7.2.1.1 Successes

- Providing leadership in library co-operation, training and development, mechanisms for improved access to information, and building capacity among members to respond to the information needs of the country with reference to scholarly communication. MALICO has provided training for resource sharing, digitisation, and licensing of electronic resources (see 3.3);
- Developing Very Small Aperture Terminal (VSAT) through the support of the Open Society Initiative for Southern Africa (OSISA), and with supplementary funding from the Open Society Institute and the World Bank and the University of Malawi (see 3.3). This helped to increase bandwidth and widen access to electronic resources among participating members;
- Development of the Education Network (MAREN) incorporating library consortia to support, learning, teaching and research. MAREN has been a useful partner with regards to improving internet connectivity;
- Establishing VSAT Network and digital repositories, thus improving access to scholarly communication for the benefit of those in isolated areas(see 3.3); and
- Lobbying for support from EIFL and to develop the library consortium. MALICO has been registered as formal legal entity with proper structures of governance and working teams or groups dealing with specific issues (see 3.3).

7.2.1.2 Challenges

- Securing support from top management and ensuring that members continue to pay subscriptions for the heavily subscribed e-resources (see 3.3 & 5.3.4)

- Lack of foreign exchange for purchasing access to e-resources since 2011;
- Limited funding to enable access to more relevant databases, as highlighted by Mapulanga (2012; see 3.3);
- Getting researchers to use the e-resources because of low internet speed and poor information literacy skills (see 3.3);
- Slow rate at which members pay fees;
- Poor electricity supply because of the energy crisis affecting Southern Africa (see 3.3.; and
- Low bandwidths coupled with an increase in the number of users accessing online resources (see 3.3).

7.2.2 South Africa

South Africa has one of the largest and most efficient library consortia in Africa. Many library consortia were established primarily in the last decade of the twentieth century (see 3.3).

7.2.2.1 Successes

- Establishment of vibrant academic library consortia for various geographic locations, for example, Cape Library Consortium (CALICO), South Eastern Alliance of Library systems (SEALS) Eastern Seaboard Association of libraries (esAL), Gauteng and Environs Library Consortium (GAELIC) and Free State Library and Information Consortium (FRELICO (see 3.3.4);

- GAELIC provided a classic example of how library consortia can overcome challenges of financial constraints through resource sharing, with regards to financial, material and human resources, and sustainability (see 3. 3.4);
- Following the formation of COSALC, the establishment of the South African National Library Consortium (SANLiC) promoted national cooperation for the benefit of its members and their clients (see 3.4.5). It broadened access to electronic information through the establishment of the national site licensing activity within its structures which became widely known as the South African Site Licensing Initiative (SASLI) (see 3.4.5);
- Use of common library systems with provision for virtual reference services (see 3.3.4 & 3.4.5). This enabled users to benefit from a union catalogue and consistent query interpretation across multiple libraries;
- Nurturing a culture of volunteerism to support library consortia development (see 3.4.5);
- Provision of training to empower members (see 3. 3.4);
- Joint purchase of e-resources and provision for inter-lending and document delivery services (see 3.3.4);
- Development of information literacy programmes, and shared electronic theses and dissertations and provision of aggregation services (see 3.3.4).

7.2.2.2 Challenges

- Providing strategic leadership for the academic sector (see 3.4);
- Enforcing standards and benchmarks to improve library services;
- Prioritizing open access and open linked data (OLD) to widen access to library resources (see 3.3.4);

- Applying business principles to the management of library consortia (see 3.3.4);
- Strategizing on data preservation, and the preservation of technology for digital content; and
- Continuously reviewing and assessing programmes to identify gaps in service delivery (see 3.3.4).

7.2.3 Zimbabwe

This section is included mainly to consolidate the successes and challenges of Zimbabwe's two library consortia, ZULC and CARLC, and to reflect on what they can learn from their own experiences thus far (see 4.3). The successes and challenges are derived from the literature review and the data analyzed and interpreted in chapter Five.

7.2.3.1 Successes

- Creating an online platform, establishing a financial base for self-funding to sustain activities, and providing for continuous professional development (see 5.2.4 and 4.3);
- Widening access to resources through digital repositories and a new generation catalogue (see 4.3);
- Setting up a functional administrative structure, a constitution and working committee for standards (see 5.2.4); and
- Fostering collaboration and partnerships with EIFL. Net and that led to improved subscriptions to print and e-journals and access to free open access resources (see 1.2.5, 4.3, & 5.2.4).

7.2.3.2 Challenges

These challenges have been listed alphabetically so that lessons learned from other countries (see 7.5) can be linked directly to each of them.

- a) Transforming into a legal entity in order to deal legally and ethically with banks and other funding organizations, paying publishers, signing licenses and managing bank transfers for foreign remittances, efficiently managing the finances of members, and dealing with legal issues relating to information production, dissemination, use and reproduction. It should be able to encourage members to make prompt payments to ensure continued access to e-resources (see 4.3);
- b) ZULC and CARLC do not have a secretariat to oversee the administrative roles of the consortium for effective corporate governance. The consortia need a permanently elected or appointed secretariat to carry out administrative functions, for managing funds, and providing education and training for participating members, as in the case of SANLIC;
- c) Balancing the needs of libraries at universities with a small number of programmes and those of bigger university libraries catering for a large number of programmes. The latter includes the University of Zimbabwe, the National University of Science and Technology, the Midlands State University, and the Chinhoyi University of Technology, while the former will include the Catholic University and Lupane State University (see 3.4.5);
- d) Delays by members in making subscription payments affects continuous and uninterrupted access to subscriptions and affects teaching, learning and research (see 3.1-3.2.1);
- e) Incorporating new university libraries into the consortia and broadening the scope to encompass all academic libraries, for example, bringing on

board Polytechnics and Teachers colleges. Creating a platform to foster resource sharing (see 3.3.5 & 5.5.4);

- f) Securing funding from the government through the Ministry of Higher and Tertiary, Science and Technology Development and other stakeholders to support consortium programmes, for example, capacity building and infrastructural development (see 3.4.5, 5.2.4 & 5.3);
- g) Continuously reviewing strategic direction to ensure flexibility and adopting business models in such areas as governance, income generation, resource mobilization, and adaptation of new technologies (see 3.4.5, 5.2.4 & 5.3) ;
- h) Encouraging participating institutions to adhere to international standards with regards to infrastructure, interoperability, quality assurance, service delivery, recruitment and wider access to resources. This can also help to build capacity for sharing storage, expertise and trouble-shooting (see 5.2.4); and
- i) Developing a Networked Library of Electronic Thesis and Dissertations to widen access to scholarly communication. This can be strengthened through ensuring that participating members adopt Open Access Policies, Open Science and Open Access standards (see 3.2).

7.3 Library consortia in other African Countries

This section deals with the successes and challenges of library consortia in East Africa (Kenya), and West Africa (Ghana and Nigeria).

7.3.1 Kenya

The Kenya Library and Information Services Consortium (KLISC) was founded in 2003 with the main aim to support resource sharing among members drawn from Universities. The following are the successes and challenges (see 3.3.4);

7.3.1.1 Successes

- Uniting academic and research libraries to share resources, and to support education, teaching, and research (see 3.3);
- Focusing more on access than ownership of scholarly content and sharing costs for subscription to e-resources (see 3.3.4);
- Securing licenses to electronic resources through and EIFL (see 3.3.4);
- Web presence to enhance visibility (see 3.3.4);
- Providing training to capacitate members to cope with topical issues in Library and Information Science, for example resource sharing, open access, digital repositories, licensing, and negotiating (see 3.3.4); and
- Creating synergies with local and international agencies.

7.3.1.2 Challenges

- Funding to support development projects and research and access to electronic resources (see 3.3.4);
- Delays in paying subscriptions for electronic resources resulting in publishers disconnecting access (see 3.3.4);
- Infrastructure development to support resource sharing; and
- Sustainability of resource sharing projects (see 3.3.4).

7.3.2 Ghana

Ghana has one library consortium, namely the Consortium of Academic and Research Libraries in Ghana (CARLIGH) (see 3.3.3).

7.3.2.1 Successes

- Widening membership to include eighteen (18) libraries from public universities, private universities, polytechnics, and research institutes (see 3.3.2 & 3.3.3);
- Provision for technical support with regards to ICT software and hardware for resource sharing and Institutional Repositories (see 3.3.2 & 3.3.3);
- Establishing functional committees, for example, for e-resources (see 3.3.2 & 3.3.3);
- Assisting member institutions to develop institutional repositories;
- Negotiating access to electronic resources for members (see 3.3.2); and
- Providing support training as part of capacity building or continuous professional development (see 3.3.2 & 3.3.3).

7.3.2.2 Challenges

- Securing buy-in from management to support subscriptions to e-resources (see 3.3.4);
- Lack of funding to support consortia projects (see 3.3.2 & 3.3.3);

- Disagreements among members that undermine cooperation for the common good (see 3.3.2 and 3.3.3);
- Delays in member payments for e-resources (see 3.3.2 & 3.3.3);
- Low bandwidth and poor electricity supply (see 3.2.3);
- Inadequate training and poor infrastructure to develop and maintain institutional repositories and to promote local e-content (see 3.3.2 & 3.3.3); and
- Copyright and network security issues (see 3.3.2 & 3.3.3).

7.3.3 Nigeria

Nigeria has three library consortia, namely the Nigerian University Libraries Consortium (NULIC), the Nigerian Monotechnic, Polytechnic Libraries Consortium (NIMPOLIC), and the Nigerian Colleges of Education Libraries Consortium (NCELIC). The following are the successes and challenges of these library consortia in Nigeria.

7.3.3.1 Successes

- Development of three library consortia representing universities, monotechnics, and polytechnics, and colleges of education (see 3.3.3);
- Partnering with EIFL and to develop library services in Higher Education. These services include access to current e-journals and content from institutional repositories (see 3.3.3);
- Providing training in licensing and negotiation, inter library and resource sharing Training is used as an instrument for continuous professional development and workplace learning. These initiatives build capacity among members, especially

with regards to information management, open access, and open-linked data among others (see 3.3.3);

- Enforcing standards to improve library services. Standards are critical in facilitating interoperability (see 3.3.3);
- Adapting open access policies to widen access to resources; and
- Developing institutional repositories help to build local content and improve the visibility of the academic institution and its researchers (see 3. 3.3);

7.3.3.2 Challenges

- Sustaining funding for library consortia development. Dependence on external support creates challenges with regards to sustainability and hence the need to rethink alternative sources of funding, for example, projects, partnership with other key stakeholders like industry (see 1.2.5 and 3.3.3);
- Creating a permanent secretariat to manage library consortium's administrative issues;
- Establishing a national library consortium to prevent duplication of effort(see 3.3.3)
- Inadequate funding to install and maintain ICT hardware and software to subscribe to databases, and to facilitate Internet connections; (see 3.3.,3); and
- Lack of coordination among libraries to initiate a cooperative network that cuts across geographical boundaries and type of library, as in the case of SANLiC (see 3.3.3).

7.4 Library consortia in other countries

The study included library consortia in China, the Philippines, the United Kingdom, the United Arab Emirates (UAR), and India because of their similarities and differences with library consortia in Southern Africa, as well as the lessons for Zimbabwe's consortia.

7.4.1 China

Library consortia in China include CALIS (China Academic Library and Information System), CASHL (China Academic Humanities and Social Sciences Library), China Regional Library Network (CRL), and Shanghai Information Resources Network (SIRN).

7.4.1.1 Successes

- Increased access to local and international databases through group purchases, for example, the purchase of 216 foreign databases by 2005 (see 3.2.3);
- Developed a national information infrastructure to strengthen regional, cross region and national library consortia through a network of digital libraries and repositories.
- Preserved and integrated digital content relating to Chinese cultural information resources (see 3.2.3); and
- Developed CALIS Union Cataloguing System and first Multilanguage web-based cataloguing system, standardization of bibliographic records and educating and training staff; and Joining Online Computer Library Centre (OCLC) (see 3.2.3).

7.4.1.2 Challenges

- Overcoming the disparity between the city and provinces with regards to development of library consortia;
- Modernizing regional, cross region and national library consortia in line with an emphasis on information infrastructure (see 3.2.3);
- Widening access to the world's intellectual heritage in digital format through an accelerated library consortia initiative for global collaboration; and
- Optimising library consortia capacity to bridge the digital gap between rural and urban areas (see 3.2.3)

7.4.2 United Kingdom

The United Kingdom Library Consortia consists of regional, discipline-based, and national Consortia, which are constituted and managed in a different ways.

7.4.2.1 Successes

- Increasing the ability of research libraries to share resources for the benefit of the local, national, and international research community (CURL, 2005; see 3.2 -3.3);
- Participating in the activities of the International Coalition of Library Consortia (OCLC) (see 3.2);
- Providing access to e-content through licenses;
- Transforming some consortia into information or database vendors or brokers, for example, Eduserv Chest (see 3.2.3); and
- Establishment of a National Electronic Site License Initiative (NESLI) to support academic libraries to purchase e-resources (see 3. 3.2).

7.4.2.2 Challenges

- Adjusting governance structures to suit the growth of the consortia with reference to new membership and new demands from users;
- Underfunding for libraries and research activities Even though Joint Information Systems Committee (JISC), under its National Electronic Site Licensing initiatives' negotiations are conducted by professionals, there is concern that the deals do not represent good value for specific sectors of universities. These institutions are considering the possibility of negotiating individually with publishers on their own account; and.
- There is need for greater collaboration between libraries in order to make the most of the current financial difficulties as an opportunity for development .
- Library consortia should devise innovative ways to generate income to ensure self sustenance (3.2-3.3).

7.4.3 Hungary

The history of library consortia in the twenty-first century Hungary was characterized by the development of vendor-based, national license, regional, discipline-based, and national Consortia, which are constituted and managed in a different ways. National License Contracts characterize the development of library consortia and its contributions towards national development.

7.4.3.1 Successes

- Widening access to critical scientific and multidisciplinary databases (see 3.2.5);
- Development of a well functioning IT infrastructure for libraries (see 3.2.5);

- Participating in library consortia programmes, for example, Orientation Towards European Development Fund, OTKA, EISZ and national license contracts with publishers like EBSCO and ProQuest (see 3.2.52);
- Securing funding from government (see 3.2.5); and
- Aligning library consortia programmes with national development goals (see 3.2.5).

7.4.3.2 Challenges

- Failure by the Ministry of National Resources to provide full support to library consortia (Csajbók *et al* 2012);
- Realigning VAT laws to support the purchase of e-resources with non-state funding (Csajbók *et al* 2012); and
- Maintaining and improving the existing consortia requires more resources (see 3.25)

7.4.4 India

India is one of the Asian countries with a large number of library consortia (see 3.2.5).

7.4.4.1 Successes

- Development of a state-supported National Information System for Science and Technology (NISSAT) (see 3.25);

- Securing state funding to develop sector-specific library consortia, for example, Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium, established in 2003;
- Using library consortia purchasing models to reduce costs and overcoming redundant expenses and duplicate subscription (see 3.2.5);
- The development of INFLIBNET with a national license to facilitate wider access to e-resources and a platform for networking libraries and information centres in Universities, colleges, key national institutions and research and development institutions and prevent duplication of effort (see 3.2.6);
- Development of Shodganga (see 3.2.6);
- Provision of national bibliographic details through locally developed databases;
- Development of Electronic Thesis and Dissertations (ETD) repositories; and
- Creating networks to facilitate access to e-journals, patents, standards, citation and bibliographic database (see 3.2.5 & 5.2.5).

7.4.4.2 Challenges

- Widening access to school, university, special and public libraries, and bridging the digital divide to widen access to multimedia resource(see 3.2.5& 3.2.4)
- Building digital collections of national importance from existing texts, documents, images;
- Selecting and maintaining open source digital resources and developing/adapting management tools for digital collections (see 3.2.5); and
- Developing national e-consortia to manage electronic resources that will provide peer-reviewed electronic scholarly communication to support teaching, learning, and research (see 3.3.2).

7.4.5 Philippines

The development of library consortia dates back to the 1970s. They include sector-based and multi-type consortia.

7.4.5.1 Successes

- Establishment of more than five academic and non-academic library consortia since 1970 (see 3.2.6);
- Securing government funding to support Higher Education including library consortia, and providing the professional development to build capacity. The support from government is critical because it provided funding for library development in the Philippines (see 3.2.6);and
- An Inter-Institutional Consortium has been established to improve collection development, coordinated purchasing, interlibrary lending, building online Union catalogues (OPACs), sharing storage facilities, promoting professional development, networking , digitising, sharing digital content, and joint preservation and archiving (see 3.2.6).

7.4.5.2 Challenges

- Library consortia are at different levels of technological development (see 2. 2.7 & 3.2.6);
- Lack of congruence between the consortia's objectives and undertakings (see 3.2.6);

- Formalisation of library consortia so that they exist as legal entities, and securing funding to sustain library consortia activities. When library consortia become legal tenders it will enhance transparency and this will attract funding from development partners (see 3.2.6); and
- Commitment of members with regards to paying subscriptions and pursuing consortia goals (see 3.2.6).

7.4.6 United Arab Emirates (UAE)

The United Arab Emirates (UAE) has developed a network of library consortia covering Higher Education, health, public libraries, research and Information Literacy

7.4.6.1 Successes

- Networking library activities for the Higher education sector to support research, learning and teaching and Information literacy. Networks have enabled institutions to share resources and best practices as well as collaborative research. (see 2.7.1 & 3.2.7);
- Adapting integrated Library Information System and developing a shared virtual catalogue for Higher Education library consortia. The use of modern technology has enabled institutions to share resources as long as they are using the same standards and protocol, for example, metadata use of integrated library management system. Institutions in Zimbabwe can draw lessons on the use of commercial or free open source software to provide for the dynamic and complex needs of users and widen and deepen users usage of library resources (see 2.7.1 & 3.2.7);and
- Utilising technology to improve resource sharing among members, and creating a specific network for promoting Information and digital literacy, for

example, Digital repositories. Such initiatives have helped to develop a research culture and also build local content apart from increasing the visibility of institution globally (see 2.7.1 & 3.2.7).

7.4.6.2 Challenges

- Developing library consortia to cater for Science and Technology (see 3.2.7);
- Cooperation and commitment from members (see 2.7.1 & 3.2.7);
- Digital divide between resource-endowed and resourced-disadvantaged institutions (see 2.7.1 & 3.2.7); and
- Institutional and inter-institutional politics affecting collaboration and support from management (see 2.7.1 & 3.2.7).

7.5 Main lessons learned to accelerate development of library consortia in Zimbabwe

The next sections will identify the main lessons that can be learned from Southern Africa, selected countries in Africa, and other selected countries discussed above. These lessons target more specifically the challenges for Zimbabwe's ZULC and CARLC listed in 7.2.3.2, and attempt to link them directly using cross-references.

7.5.1 Southern African countries

- At a time when library budgets go down, it is prudent for libraries to cooperate with each other and to pool resources to overcome financial constraints and to satisfy the information needs of member institutions. Okojie (2010)

encouraged university libraries to network, collaborate and build consortia in order to leverage on the benefits of bulk purchase of electronic materials and licenses, and train staff in the use of electronic resources. There are a number of countries in Southern Africa that have developed consortia through the support of eIFL.net. They should now move towards internal collaboration (see 7.2.3.2 f);

- Timely payment of membership share of subscription to e-resources ensures continuous access to subscriptions. For example, MALICO between 2010 - 2012 faced a challenge as members were slow at paying subscriptions, resulting in a backlog of payments. The search for alternative sources of funding can generate money to sustain subscriptions (see 7.2.3.2 d & f);
- The adaptation of common library standards and protocols. For example, the adaptation of Millennium INNOPAC by library consortia in Lesotho and South Africa as highlighted by Taole (2009) has improved resource sharing among participating libraries in Southern Africa. Common library standards and protocols ensure interoperability of systems - for example, standards for metadata, resource sharing, protocols and resource discovery and interlibrary loans (ILL) (see 7.2.3.2 i & j);
- Providing opportunities for continuous professional development to equip members with knowledge and skills to effectively and efficiently manage resources (see 7.2.3.2g);
- Donors like EIFL and are more comfortable working with library consortia rather than individual libraries. For example, in South Africa, the South Eastern Alliance of Library Systems (SEALS), Eastern Seaboard Association of Libraries (esAL); Gauteng and Environs Library Consortium (GAELIC), and Free State Library and Information Consortium (FRELICO) were formed during last decade of twentieth century through the support of EIFL and . The main idea was to overcome challenges of poor funding. ZULC and CARLC likewise need to develop sustainable ways of self-financing because reliance on donor support has its disadvantages (see 7.2.3.2 e). Sustainability of the activities of library consortia in Zimbabwe is important and it is incumbent

upon ZULC and CARLC to lobby government for grants through the Ministry of Higher and Tertiary Education, Science and Technology Development and the Research Council of Zimbabwe. Continued reliance on donor support for the sustenance of library consortia is a short-term solution. This lesson is drawn from South Africa (see 7.2.3.2 e);

- Enhancing inter-consortia cooperation through national platforms is critical for ZULC and CARLC. For example, SANLiC, a national library consortium, is critical in regulating and rationalising operations to prevent duplication of effort. Such a consortium with a national focus at the operational and strategic levels is critical with regards to rationalising funding, licensing of e-resources, providing training in e-resource management, negotiating skills and licensing principles and leveraging a better alternative to negotiable agreements (BATNA) when engaging publishers for e-content licensing (see 3.3.3 & 6.4.6). In Zimbabwe, SANLiC provides experienced professionals that gladly share expertise with fellow librarians who are new to the world of online resources. Its bi-annual workshop affords delegates from the member institutions to share and learn from each other and from the insights of international speakers (see 7.2.3.2 c, d & g); and
- Establishing a shared or networked library of electronic theses and dissertations, and development of a national portal for Electronic thesis and dissertations. Okojie (2010) emphasised the importance of utilising modern information and communication technologies to share resources on wider scale, and investing in adequate infrastructure and standardization of library management software (see 7.2.3.2 c, l & j).

7.5.2 Lessons from other African countries

- Universities are key in stimulating the developments of library consortia to overcome of resource shortages and to improve inter-institutional cooperation, as evidenced by the Consortium of Academic and Research Libraries in

Ghana (CARLIGH) and Kenya Library and Information Services Consortium (KLISC) (see 7.2.3.2j & k);

- Library consortia should move towards conducting research, self-sustenance, continuous professional development and income generation, as evidenced by Ghana (CARLIGH), and Kenya (KLISC) (see 7.2.3.2 a, b, f, d & g);
- Creating vibrant library consortia with proper systems of governance and clearly-defined membership structures, and policies that are well-defined and practical to ensure that the information needs of stakeholders are being met. Financial support from the government is important to sustain the operations of library consortia (CARLIGH; see 7.2.3.2 c, d, f & g);
- Strengthening networks and engagement with key stakeholders to develop a National library of Electronic Theses and Dissertations to widen access to scholarly communication. This can be achieved by mobilising local resources and partnering with other international organisations. For example, the Association of African Universities (AAU), and EIFL have helped KLISC in Kenya, CARLIGH in Ghana, and NULC in Nigeria to develop e-resource projects (see 7.2.3.2 a, b & g).

7.5.3 Lessons learned from countries outside of Africa

- Library consortia in the United Kingdom, China and India value collective strategic leadership to achieve collective goals. Such library consortia support learning, teaching and research through innovative collection development programmes. They are also involved in innovative programmes to build human and institutional capacity (see 7.2.3.2 b & g);
- Viable and effective systems of governance - successful consortia have demonstrated that some degree of subordination of local autonomy to the general good was required to enable long-term commitment for the benefit of

all the consortium members. For example, library consortia in, China and India (see 7.2.3.2 b, c & g);

- Members of consortia should be aware of their obligations relating to finance, commitment, accountability, governance, the pursuit of common goals and how to evaluate the outcomes of their ventures (see 7.2.3.2 a, b, c & g);
- There is a need for African libraries to establish endogenous mechanisms to foster participation in consortia building. For example, capacity building ICT infrastructure development, institutional information policy development, and adherence to bibliographic standards as reflected by the library consortia in China, India and the United Arab Emirates (see 7.2.3.2 i); and
- The experiences of library consortia development in the United Arab Emirates (UAE), India, China, and the United Kingdom (UK confirm that the successes of library consortia depends upon adequate funding, effective and efficient systems of governance, adaptation of new technologies and strategic thinking (see 7.2.3.2 e & f).

7.6 How the main lessons from other library consortia can benefit Zimbabwe

The following points are a succinct consolidation of the previous sections and sub-sections to produce the main lessons that Zimbabwe can learn from library consortia developments in Southern Africa, other African countries, and countries outside the continent to accelerate the development of its consortia to underpin its national development programmes.

7.6.1 Finance

The involvement of the state in supporting library consortia development through grants is crucial. The lack of state funding for ZULC and CARLC has resulted in international organisations filling the gap, and in ZULC and CARLC embarking on innovative but short-term projects to sustain their activities (see 7.51). Reliable support from the government will contribute to Zimbabwe's library consortia development as a whole, and over the long term. Okojie (2010) proposed that African governments should be encouraged to enact legislative frameworks that facilitate the development of libraries. Currently the Library Development Fund in Nigeria, Ghana and Kenya, mandates university libraries to spend 10 percent of their recurrent budget on library development is a good practice that should be encouraged. It is crucial to note that while international support is critical, it does not provide long-term solutions and financial sustainability. This lesson is drawn from South Africa, Malawi, and Ghana, (see 7.21; 7.2.2; 7.2.3.2 f & 7.3.1).

7.6.2 Structure

Zimbabwe is best served by a multi-sector/federal structure with a National Coordinating Committee (NCC). Such a structure with properly formalised governance systems should also exist as a legal entity. This structure will integrate all types of libraries and share information resources among them (see 7.4.1 & 7.7). A multi-sector library consortium has more benefits since resources are accessible and used for the benefit of all (see 7.5.3 & 7.6). India also provides an example of a successful library consortium in the form of INFLIBNET, which has effective structures of governance. In Africa, the Kenya Library and Information Services Consortium (KLISC), Ghana's CARLIGH, and the South African National Library Consortium (SANLiC) are good examples with features of a multi-sector/federated library consortium and a cost-sharing model that accommodates academic and non-academic libraries. This lesson is drawn from South Africa, Kenya, China, Australia and the United Kingdom (see 7.2, 7.2.3.2, 7.3.1).

7.6.3 Governance

To ensure the success of the proposed multi-sector/federated library structure there needs to be proper systems of governance, provision for funding, and a sound legal basis. It is critical that a library consortium should exist as a legal entity because of ownership of properties, and engagement in contractual obligations with vendors and publishers. The legal basis and policies on membership, administration, ownership of assets, open subscriptions, e-content licensing and access should be aligned with the structure of the consortium. For example, there should be special or *ad hoc* committees to deal with strategic and operational issues. ZULC and CARLC should strengthen their governance and membership systems and should exist as legal entities. Systems of governance can be effectively exploited to achieve national development goals. This lesson is drawn from library consortia in South Africa, Zambia, Malawi, the United States of America, and China (see 7.2.1, 7.2.3.2 c, & 7.3.3). Goodluck (2012) stated that issues of governance are critical since they affect the success of the library consortium. Using the development of library consortia in Nigeria, he explains that the bigger the consortium, the more complex the issues of governance.

7.6.4 Functions

The library consortia examined in this study perform a variety of critical functions, namely cooperative collection development and processing of information, inter-lending, document delivery, licensing of electronic content, digitisation and managing databases. Creating opportunities for resource sharing is the *raison d'etre* for library cooperation. Library consortia require members to adhere to common standards and protocols to ensure the interoperability of systems and to contribute resources to achieve common goals.

In Zimbabwe, compliance should be enforced by the National Coordinating Committee (See 7.7.1) comprising representatives from University Councils, the

Ministry of Higher and Tertiary Education, Science and Technology Development, the Zimbabwe Council for Higher Education (ZIMCHE), Zimbabwe Library Association (ZIMLA), Zimbabwe University Library Consortium (ZULC), College and Research Library Consortium (CARLC) and the Zimbabwe Research and Education Network (ZimREN). The success of resource sharing depends on the degree to which participating members uphold bibliographic standards. For example, the use of Millennium INNOPAC common library system by library consortia members in South Africa has improved resource sharing. This lesson is drawn from South Africa, Lesotho, Botswana, Ghana, Nigeria, the United Kingdom, and China (see 7.2.3.2 j, 7.3.2 & 7.3.3).

7.6.5 Special Features

ZULC and CARLC should venture into innovative projects, such as content generation, institutional repositories, content licensing, and education.

7.6.5.1 E-Content generation

Academic library consortia in South Africa, Malawi, and Ghana encourage members to establish publishing departments, and to engage in the digital distribution of publications or research outputs by faculty and students. Some have established partnerships with university presses and scholarly societies to leverage e-scholarly communication (see 7.2 & 7.3).

7.6.5.2 Institutional Repositories (IRs)

It is imperative for the two consortia to develop institutional repositories (IRs) to capture and leverage local content.

- ZULC members have been developing institutional repositories using DSpace, but more should be done. Currently there are nine (9) members of ZULC listed on OpenDOAR. Five (5) of the members are full members while the rest are affiliates (see 6.3 & 7.6.5.2);
- CARLC institutions do not have IRs even though they are producing content at graduate level, which should be captured and preserved in digital format.

Research and scholarship resources should be managed in such a way that there is a return on investment (Reiger, 2012). It becomes imperative to formulate proper knowledge management strategies to ensure effective and efficient management of intellectual assets. Furthermore, the management of IRs should change the mind-sets of policy makers so that they value intellectual capital and resource sharing. The policies and procedures for managing content in IRs should be regularly reviewed to ensure that they are synchronized with global trends.

7.6.5.3 E-Content licensing

Library consortia must build capacity in e-content licensing to enable access to e-resources from licensed databases. Members of library consortia will gain from licensed content since it will be available to authenticated users anytime and anywhere. E-content licensing is also linked to the concept of National Site license (NSL), which is mainly a single site license operational among various publishers and vendors. A national library consortium can negotiate and effect payments on behalf of members. This is a cost-effective way of acquiring content. Furthermore, e-content licensing enables multiple libraries to negotiate price and contract terms together. This lesson is drawn from the South Africa, Kenya, China, and India (see 7.2.3.2 j).

7.6.5.4 Education

Library consortia can play an important role in supporting the education of its key stakeholders, for example: students, researchers, and lecturers. Research conducted by Oakleaf (2010) showed that library consortia contributed towards quality education with regard to student success, student achievement, student learning, student engagement, faculty research productivity, faculty teaching, service, and overall institutional quality. Furthermore, an appropriate library consortium model should capacitate staff through continuous professional development and workplace learning (CPDWL) in order to accelerate development.

These lessons learned from, among others, the USA, India, the United Kingdom, the United Arab Emirates, and African and Southern Africa countries can be consolidated and used to produce a model for accelerating the development of Zimbabwe's consortia to underpin its national development programmes. This model is presented and discussed in chapter seven.

7.7 Conclusion

The development of library consortia in different parts of the world serves as a source of instructive lessons that can be studied and applied in order to accelerate library consortium development in Zimbabwe. The lessons learned can also be useful in developing an eclectic model of library consortia that best suits Zimbabwe to underpin its national development agenda. The next chapter will present such a model.

8 CHAPTER EIGHT - PROPOSED MODEL FOR LIBRARY CONSORTIA IN ZIMBABWE

8.1 Introduction

This chapter presents the proposed model for library consortia development in Zimbabwe. The present academic sector library consortia still excludes other types of libraries from participating in resource sharing and promoting access to information on a national development scale. This proposed model to transform ZULC and CARLC's growth paths and to accelerate the development of library consortia in Zimbabwe draws on the experiences of library consortia in Southern Africa, selected African countries and those outside Africa. Lessons learned from their successes and challenges revolve around structure, governance, finance, functions and other special features as key features of an appropriate model. The purpose of the proposed model is to accelerate the development of library consortia to support the country's national development agenda.

8.2 Library consortium model for Zimbabwe

Figure 8.1 represents the model to accelerate the development of library consortia in Zimbabwe. The model depicts various features, which include communities, libraries, other library consortia, service provision, levels of operation, infrastructure, protocols and standards, access points, networks and institutional repositories (see 6.2.7, 6.2.9, 6.2.12, 6.3.1, 6.3.4 & 7.5.1, 7.5.3, 7.6 & 7.7). The model is anchored on five critical pillars namely: finance, structure, governance, functions, and special features. This model is ideal for Zimbabwe because it builds on the lessons learned from consortia in other countries, and the strengths of already-existing structures and systems of library consortia established through ZULC, CARLC, as well as regional and international organisations (see 7.2.3.1, 7.3.1, 6.4 & 7.4.3). The model

encompasses all categories of libraries, namely university libraries (ZULC), college libraries (CARLC) and a general consortium for public, school, special, and other types of libraries (7.3.4). It bears some similarities with the ecosystem model advocated in South Africa's LIS Transformation Charter with regards to stronger LIS sub-sectors assisting weaker sub-sectors to the mutual benefit of the entire LIS sector in the interest of national imperatives. The model will also rely strongly on state support and alternative sources of funding. In this case, it looks to the work of Csajbók *et al* (2012:337) who have demonstrated the success of Hungary's library consortia development approach to national development goals (see 3.2.5).

This model seeks to prevent the proliferation of multiple library consortia at a time when resources are limited, and when collaboration and cooperation is unavoidable (see 1.2, 1.3, 2.4, 7.2.3.2 d & f, & 7.5.1). In this instance it is not just about cooperation for academic libraries, but cooperation for all. It therefore aims at rationalising resource usage through sustainable resource-sharing, and the use of smart technologies (see 7.7).

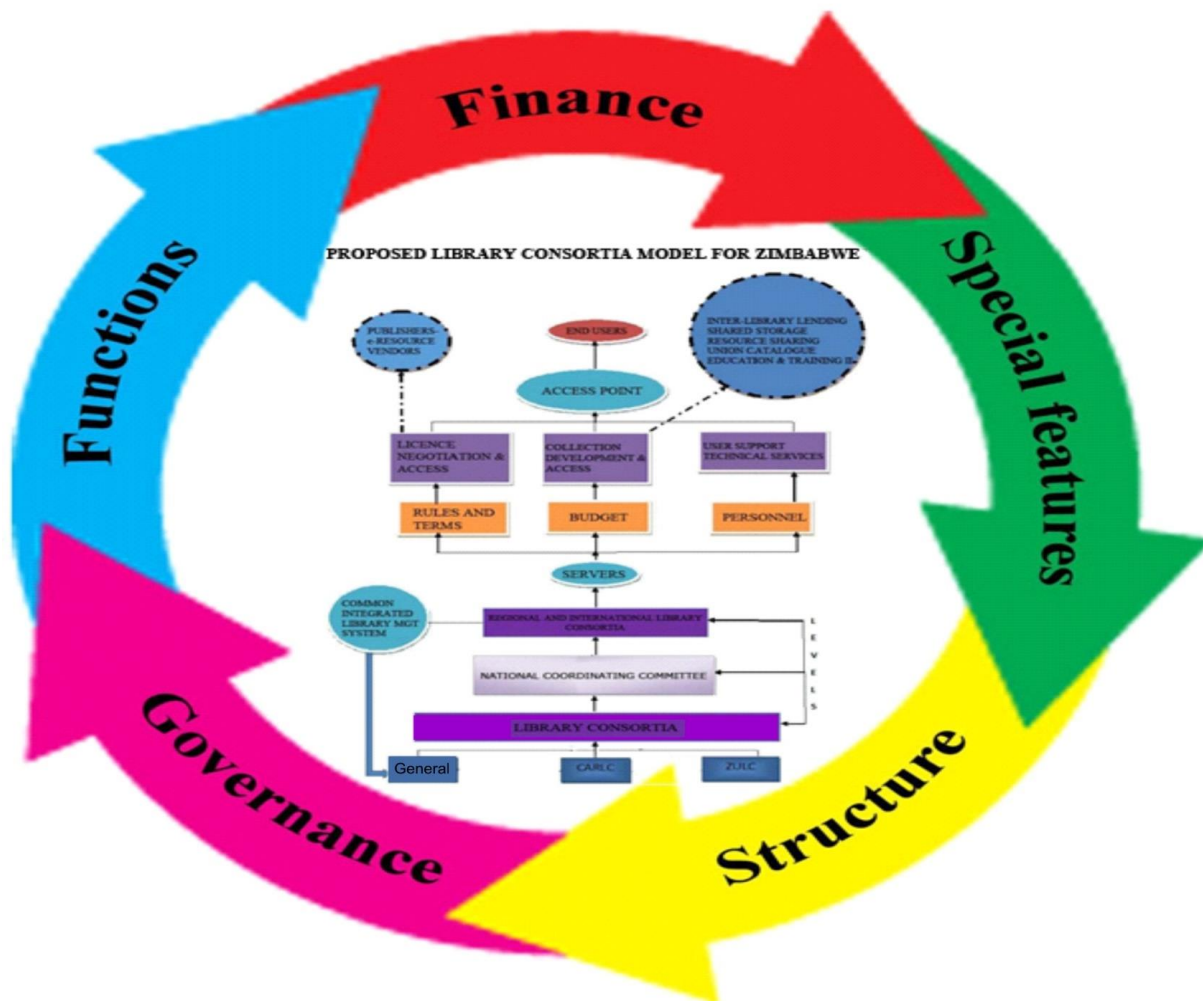


Figure 8.1: Library consortium model for accelerating library development to support Zimbabwe’s national development agenda

The model, which could be called the Zimbabwe Federated Library consortium (ZFLC), will comprise the following key components:

- ZULC;
- CARLC;
- A General Library Consortium, (public, school, and other types special libraries) whose name will be decided at some future date; and a

- A National Coordinating Committee (NCC) of the federal body (along the lines of SANLiC) whose name will be decided at a future date (see 7.7). It will have connections with regional and international library consortia, as shown in figure 8.1

The following sections set out the key features of this model based on the main lessons learned. These features are presented in broad outline, and details will have to be fleshed out in practice. In other words, the model is open to further adjustments.

8.2.1 Structure

The model encapsulates a federal and multi-type structure that will operate under the management of a National Coordinating Committee (NCC). The model suits Zimbabwe because there are already two established library consortia, namely ZULC and CARLC, to which a General Consortium for public, school, special and other types of libraries will be added (see 6.2.10). The model will build on the strengths of the existing academic library consortia. The structure is ideal for Zimbabwe because it involves the country's various types of libraries, which can all contribute towards national development. This multi-type structure will extend the benefits of ZULC and CARLC to ensure inclusive development. It is premised on democratic principles, which enable 'participating members' to be represented, and to leverage resources for the benefit of all (see 7.2.3.2 d).

A federal structure provides for the autonomy of member consortia, and supports mutual collaboration across all library sub-sectors. The three consortia will therefore exist independently but will be affiliated to the nationally federated body or NCC. The NCC should ideally comprise representatives from University Councils, the Ministry of Higher and Tertiary Education, Science and Technology Development, the Zimbabwe Council for Higher Education (ZIMCHE), the Zimbabwe Library

Association (ZIMLA), the Zimbabwe University Library Consortium (ZULC), the College and Research Library Consortium (CARLC), the General library consortium and the Zimbabwe Research and Education Network (ZimREN). Importantly, there should be representatives also from the Library Boards that are appointed by the Ministry of Primary and Secondary Education to assist public libraries. These nationwide boards provide an important point of contact between practicing librarians, public servants, and political officials. ZIMLA and the NCC should play the leading role, and spearhead the process. Members could meet thrice per year, with the option of *ad hoc* meetings. Offices of the President, Vice President and secretariat could be elected by members for a three year term.

The NCC, in which all three consortia will be represented, will oversee their effective operation, promote the widening of access to e-resources, and coordinate accelerated consortia development. It will also serve as a clearing house to prevent duplication of effort, and support the negotiating power of member consortia. It will be responsible for aligning the long and short-term plans of the three consortia with national development goals.

At the local level the structure will have representation from all of Zimbabwe's libraries through ZULC, CARLC, and the general consortium. At the national level the NCC will liaise closely with ZIMLA to coordinate access to e-resources, and establish bibliographic standards that ensures interoperability. The NCC as an overseeing agency with help from ZULC will also be responsible for reconciling budgets for the three library consortia with specific reference to raising grants from government and other institutions. It will play a role similar to that of OCLC in the USA and will coordinate shared storage for physical and electronic resources. At the international level, the NCC will seek affiliation to regional and international bodies, such as the Electronic Information for Libraries (EIFL), and International Coalition of Library Consortia (ICOLC) in order to benefit from discussions, debates, and workshops, to keep members abreast of current e-resources information, pricing practices of e-resources, information on e-content providers and vendors, and critical management issues. The NCC will serve as the link between the three consortia and

regional and international associations such as SANLIC, CDL and the ICOLC (see 3.2.3 & 3.2.5).

8.2.2 Finance

The library consortia in the model (ZULC, CARLC, and the General Consortium) can secure funding from membership fees (see 7.5.1, 7.5.2 & 7.7). Membership categories can be differentiated, for example, as full, affiliate, and basic. Full membership will attract a high fee commensurate with the right to vote, while other membership categories will allow participation in specified committees and activities without voting rights. Membership categories and roles can be reviewed and redefined as the different consortia develop. Funding will also determine the overall and individual budgets for the consortia. These budgets will cover the operational costs and overheads for each consortium (see 7.7 & 7.8). Member consortia should create innovative ways of generating and managing funding to sustain the operations and activities of the consortium, such as collection development, shared storage, e-licensing, education and training, technical support and systems maintenance, continued subscription, marketing and communications, and other miscellaneous activities (see 7.7 & 7.8).

Most importantly, the NCC's chief responsibilities will be to secure state funding for the general management of the three consortia, and to lobby international organisations for special project funding (see 3.2.4). The Hungarian and South African models provide instructive examples of how libraries and the state can collaborate in the funding of consortia activities (Csajbók *et al* 2012). This could be achieved through a phased-approach combined with targeted project funding. The development of SANLiC in South Africa and INFLIBNET in India are examples of mutual collaboration between library consortia and the government to promote national development. The NCC will serve also as a clearing house and ensure that

there is no duplication of effort. It should decide on the principles of financial management of the federal body, with a special focus on how to fund the new general consortium. If ZULC and CARLC wish to retain a certain measure of financial autonomy, then decisions should be made about which budget items should be shared and which should not. All of these matters should eventually be spelled out in an agreement to which all parties should consent and abide.

8.2.3 Governance

Good governance and service delivery are closely linked because quality service delivery results from effective structures of governance. Governance in the proposed model is premised on a system that will eliminate deficiencies relating to human and institutional capacity (see 7.5 & 7.5.3). The model incorporates a system of accountability and end-user engagement through regular feedback to ensure good governance. Items to be included are the terms of office, election procedures, and compliance with ethics and integrity policies. This implies regular review of structures, strategic direction, legal and policy frameworks, accountability and openness (see 7.6). The NCC will be tasked to put these in place and monitor their effectiveness. The model for Zimbabwe ultimately aims to improve quality of service for the benefit of end-users.

It is critical that a library consortium should exist as a legal entity because of ownership of properties, and engagement in contractual obligations with vendors and publishers (see 6.6 & 6.9). The legal basis and policies on membership, administration, ownership of assets, open subscriptions, e-content licensing and access should be aligned with the structure of the consortium so that all library sub-sectors will benefit. The *ad hoc* committees will deal with strategic issues, for example, long term planning. Library consortia will formulate clear statements of what they intend to achieve within a specified time frame and establish structures to achieve established goals (see 6.2.3.2 b). It is encouraging that ZULC has committed itself to this in its strategic plan document for 2014 to 2018, but in the new

dispensation plans will have to be coordinated with a view to national goals rather than sectoral interests only.

The model expects that resource sharing will operate with protocols and standards. The national consortium body will require a server for the cooperating libraries, to computerize their collections and ensure interoperable metadata within the network. Participating libraries can use a standard protocol, for example Z3950, for resource sharing to allow for interoperability of systems (see 7.2.3.2 h). Member consortia will have to ensure that proper and effective records management systems are in place for accountability purposes. But good governance should also be aligned with socio-economic development, and in this regard access to information is critical to achieving national development goals.

These ideals are spelled out in the goals and targets of international bodies such as the UN and IFLA (2016). But for Zimbabwe, the member consortia will have to seek representation either as full or affiliate members on key national bodies and programmes, such as the National Youth Council, the National Chamber of Commerce, and the Research Council of Zimbabwe. Their aims should be to sensitize these bodies to the developmental role of access to information, and to facilitate this access through raising awareness of relevant databases and education in the tools of access.

It is critical for the federated library consortium to involve key stakeholders in its development strategies. For example, working with other development partners such as the NLDS, HEXCO and ZIMCHE will add value to the consortium's projects. The NCC should lobby to serve on various committees relevant to the provision and licensing of electronic information resources to libraries in the public sector. The main aim therefore is that good governance for the NCC will mean also inserting itself into bodies that deal with Zimbabwe's national development, and convincing them about how they can contribute.

8.2.4 Functions

The federated library consortia will fulfil the following key functions:

- Licensing negotiations and access;
- Collection development;
- User support and Technical Services; and
- Promoting compliance with standards.

8.2.4.1 Licensing negotiation and access

Member library consortia will have to acquire e-resources through negotiating license agreements with publishers. The National Coordinating Committee (NCC) and affiliated consortia will lease e-content in line with the terms of the license agreement. Member institutions will have to agree on the licensing principles with regards to clauses in the contract, and determining the contracting agency for the consortia. The NCC and representatives from the consortia will negotiate the agreement. ZULC's experience in this area of licensing negotiations and access to e-resources will require that it plays a leadership role in order to achieve this function (see 6.2.5, 6.3.2 & 6.3.1).

In the acquisition of reading material, ZULC will also have to guide the NCC and the other consortia so that all member libraries agree and formulate shared principles for dealing with publishers. Specially prepared policies on access can be used by each library to determine its own access policy. ZULC can also train consortia members on matters affecting the successful running of a consortium. These training sessions could include legal obligations, inter-lending and document supply services, licensing negotiation and so forth.

8.2.4.2 Collection development

The NCC in consultation with representatives from the three member consortia should formulate a collection development policy. When such a policy is in place it should be administered by a Collection Development Committee (CDC) consisting of members representing different interest groups. The collection development policy should accommodate both institutional and consortium levels, and should be reviewed regularly. A union catalogue should be developed and maintained, and should be shareable and accessible via the internet. Once again ZULC's experience with e-resource programmes such as group subscriptions and trial access requires that it should take the lead in this matter, and train members of the other consortia. End user services such as basic and advanced bibliographic and full text searches will be provided, and this will be made possible through aggregation of records by member libraries.

8.2.4.3 User support and technical services

Each consortium should be assisted by a User Systems Support (USS), which will also operate at the institutional level. USS will be provide for the technical infrastructure required to create and deliver NCC services. It will work towards providing a reliable and secure platform for software system and ensure the best possible application performance and user experience. The USS unit should be responsible for quality and efficient technical support for users. It should ensure reliable access to network infrastructure to facilitate access to library services, and include: helpdesk services, network and infrastructural management and administration of systems, and procurement of software and hardware Other end user services will include compilation of bibliographies, current awareness service, selective dissemination of information, photocopying, remote access, self service, document supply , and education and training through information literacy programmes. In this case, CARLC members can assist ZULC because it already has active and effective technical service support units.

8.2.4.4 Promoting compliance with standards

The NCC should oversee the development, implementation, and compliance with common standards, for example the use of Integrated Library Systems and metadata application profile (MAP) for the storage, serialization and accessibility. Standards will enable collaborating partners to work together on mutually acceptable standards and protocols and share resources. Such a system should be able to aggregate the metadata of participating members. There will be need to ensure adherence to rules and terms of governance and operation. The choice of a metadata system that serves the interests of participating members will need to be decided. Library consortia members will have to adhere to these standards and protocols to ensure the interoperability of systems and resource sharing. Compliance with other national and international standards should be enforced by the NCC in consultation with, the Zimbabwe Library Association (ZIMLA), ZULC, CARLC, the Medical Research Council (MRCZ), the Research Council of Zimbabwe, and the Zimbabwe Academic and Research Network (ZARNET), Zimbabwe Research and Education Network (ZimREN) and development partners like the Ubuntu Alliance.

8.2.5 Special Features

The special features of the proposed model focus on ways in which a federated consortium can promote Zimbabwe's national development agenda. The focus is primarily on ZIM- Asset, e-content licensing, and education (see 1.3 & 3.4).

8.2.5.1 ZIMASSET

Access to quality information and scholarly research is critical for ZIMASSET's focus on the maximum exploitation and adding value to the country's abundant resources. In this regard, the new federated library consortium can contribute in respect of

digitization, metadata creation, text-mining, discovery, and preservation. Special consortium projects could target food security, nutrition, social services, and poverty eradication. The kind of support offered by these projects could focus on providing the infrastructure for access to relevant and high-quality information (see 3.5), and electronic content production. Through partnerships with relevant government departments tasked with ZIMASSET activities, the new consortium can share information skills and repackage knowledge in official developmental documents for the benefit of ordinary citizens. These can then be disseminated to the public through the libraries, especially those attached to the general consortium. This information intermediary role for the benefit of citizens is a crucial feature in garnering public support for ZIMASSET and Vision 2020.

Identifying and connecting development partners to ZIMASSET is another significant way that the new federated consortium can support the achievement of national developmental goals. The idea, for example, of United Nations and civil society organisations as development partners in promoting information access is not new in Zimbabwe. Munyoro and Dick (2015) have recently examined the roles of the UNDP and as development partners in disseminating parliamentary information in Zimbabwe. Public Private Partnerships (PPPs) are highlighted in the ZIMASSET list of financing mechanisms for the successful implementation of Zimbabwe's national development plan from 2013 to 2018. and EIFL, which have worked with ZULC and CARLC, can be potentially useful partners for ZIMASSET with regards to expanding the accessibility and utilisation of ICTs to improve service delivery and accelerating economic growth, human capital development, scientific research and development (see 3.4 & 8.3).

The ZIMASSET Vision wants to promote “equitable development and prosperity for all Zimbabweans, whilst leveraging own resources” (ZIMASSET, 2013:1). The new library consortium's academic members, namely ZULC and CARLC, would be valuable stakeholders to provide access to indigenous scientific research. Zimbabwe's National Development Plan's emphasis on strong collaborative partnerships among government agencies, private sector, citizens and other

stakeholders (ZIMASSET, 2013:13) actually invites support from an initiative like the proposed library consortium. ZULC's and CARLC's partnerships with publishers, Internet service providers, EIFL and can therefore contribute to the ZIMASSET in several ways. Reputable publishers and database vendors with proven records known to consortium members will prevent wastage and speed up the work of ZIMASSET.

The experience of the academic consortia with institutional repositories (IRs) will assist in capturing and leveraging local content, which ZIMASSET stresses as enabling citizens to access education and training. The National Library and National Archives will require a networked information system that provides single access to content from archives, galleries and museums. In this regard, the new consortium can play an advisory role in the management of IRs and convince policy makers of the value of intellectual capital and resource sharing.

8.2.6 Zimbabwean National Site licensing initiative

The range of e-resources has broadened beyond current journals to contain journal archives, reference and e-books. Library consortia have developed capacity in e-content licensing to enable access to e-resources from licensed databases. The new library consortium can apply this expertise to bring together the traditional focus on research with a focus on development. This combined research and development focus will expand affordable access to e-resources that target the key national development focus areas such as food security and poverty alleviation. In the proposed model, the new consortium will negotiate affordable prices for journals with publishers for access to electronic content and agreeable licenses on behalf of participating members.

The electronic content will focus on the four clusters of ZIMASSET with regards to human capital development, provision of social services and poverty eradication,

infrastructure and utilities, and value addition and beneficiation. The relevant Government ministries and departments that will benefit from this access to information include Education, Higher Education, Science and Technology Development, ICTs, Information, Media and Broadcasting Services and Rural Development, Mines and Mining development, the Rural Development, Preservation and Promotion of Culture and Heritage, Agriculture, Mechanisation and Irrigation development and environment water. The research units within these ministries and also the Research Council of Zimbabwe (RCZ), Scientific and other development partners including the Industrial Research and Development Centre (SIRDC), Medical Research Council of Zimbabwe (MRCZ) and Southern African Research and Documentation Centre (SARDC) will benefit immensely from wider and up-to-date access to online journals and databases.

While the new federated consortium cannot operate like SANLiC in South Africa because of the different historical and socio-economic circumstances, there is much to be learned from the South African example (see 3.4.5). The main benefit for the new federated consortium, as with SANLiC, will be discounted pricing for the consortium members' subscriptions to electronic information resources. As in the South African case, the new federated consortium will seek to establish a national (Zimbabwean) site licensing initiative. And like the example in South Africa, its role could be to establish needs, negotiate licences and prices with publishers, coordinate access, delivery and training, and deal with cost effective use of electronic information. In this instance though, the overall aim and application will be Zimbabwe's national development agenda. Besides South Africa, there are also examples in Kenya, China, and India (see 7.2.3.2 j).

The new federated library consortium will be actively involved in the coordination of the National Site license Service (NSLS) to provide sustainable access to all participating members. This will promote inclusive development through incorporating all types of libraries to access e-content, but the higher purpose remains the contribution to the national development agenda.

8.2.7 Education and training

The new federated library consortium will play an important role in supporting the education and training of its key stakeholders. The activities of the consortia in education and training will involve a number of stakeholders including the Office of the President and Cabinet, which has oversight coordinative and policy guidance roles in the implementation of ZIMASSET. Munyoro and Dick (2015) have shown how the educational initiatives of development partners improved access to parliamentary information.

The federated library consortium will support benefit sub clusters of ZIM Asset with respect to fiscal reform measures and Public Administration through providing access to research and development for sustainable options and generation of practical solutions to reduce public deficit as well as building human capital and operational capital. The social services and poverty eradication cluster critical skills are needed from the Ministries of Primary and Secondary Education, Higher Education, Science and Technology Development and Industry and Trade as well as research units, for example, Medical Research Council of Zimbabwe (MRCZ), Research Council of Zimbabwe (RCZ) and Scientific Industrial Research and Development (SIRDC). The new consortium will equip citizens with multi-modal literacies to enable them to effectively participate in the realization of the governance and Performance management sub-cluster through e-inclusion, e-governance and wider access to shareable databases.

Furthermore, the new federated library consortium will capacitate citizens through continuous professional development and workplace learning (CPDWL) in order to realize national development goals (see 6.2.11). This training covering digital literacies will be provided by ZULC together with UNESCO, and EIFL. End user education is critical to enable users to effectively utilize resources provided by the consortia (Csajbók *et al* 2012). The federated library consortium will educate users to use information portals. The means of providing access to resources to support

national development goals is critical to the success of the federated library consortium. The federated library consortium will also provide for the food security sector through facilitating access to agricultural information to commercial and small scale farmers. This will be achieved through working with the Ministries of Agriculture, Mechanization and Irrigation Development, Lands and Rural Resettlement, Public Service Labour and social welfare and other units like the Agricultural Marketing Authority (AMA) and the Agricultural Research Council of Zimbabwe (ARCZ).

The federated library consortium will also engage development partners, for example, Food Agricultural Organization (FAO), AAU, and EIFL in developing information literacy programmes for farmers. ZULC and CARLC and official from the agricultural ministries can be useful in providing training in information literacies for sustainable agricultural production. Munyoro and Dick (2015) view capacity building as development work that strengthens the ability of community organizations and groups to build their structures, systems and people's skills so that they are better able to define and achieve their objectives, consult and plan, manage community projects, and participate in partnerships and community enterprises.

8.3 Conclusion

This federated library consortium model aims at accelerating the development of library consortia in Zimbabwe to underpin national development. It draws on lessons learned from library consortia in African and other countries. The model is premised on principles of sustainability, continuous engagement with all stakeholders, active participation of members, and delivery of quality service. This model, if adopted or adapted, will contribute to the development of all library sectors and in turn contribute to achieving Zimbabwe's national development goals (see 6.3.4 & 7.3.5).

9 CHAPTER NINE - FINDINGS, RECOMMENDATIONS, AND CONCLUSIONS

9.1 Introduction

The main purposes of this study were to investigate the development of library consortia in Zimbabwe, and then to propose a model that will both accelerate their development and support the country's national development agenda. This chapter will present the research findings, make recommendations based on the evidence, and draw evidence-based conclusions. The findings are based on data collected, presented, and analysed in Chapters six and seven. The data came from a literature review, questionnaires, interviews, and key primary documents.

A special focus of the study was to investigate the role of library consortia in supporting Zimbabwe's national development agenda. The model draws on the lessons learned from the successes and challenges of library consortia in other parts of the world, especially Southern African countries because of some similarities in their outlooks and visions for national development. In this regard, Zimbabwe's Vision 2020 and more especially its detailed and focused ZIMASSET economic blueprint has been the target for support from a federated library consortium model. Although these visionary and aspirational national development plans have cut-off dates in the near future, the model offers development partner and supportive roles that could be useful over the longer term for Zimbabwe.

The research questions were as follows:

Main research question- What lessons can Zimbabwe learn from the successes and challenges of library consortia in Southern Africa and elsewhere to construct a model that will support the country's national development agenda?

The following research sub-questions were formulated in order to answer the main research question:

- How have academic library consortia changed the provision of library services?
- What are the significant developments in the history of library consortia in Zimbabwe?
- What have been the successes and challenges of library consortia in other countries and in the Southern African region?
- What have been the success and challenges of library consortia in Zimbabwe?
- How can the lessons learned from consortia in other countries and in the Southern African region be integrated into a model to support Zimbabwe's national development agenda?

9.2 Findings

This section presents the findings in order of the five research sub-questions, and the main research question.

9.2.1 Sub-question 1: How have academic library consortia changed the provision of library services?

Academic library consortia have changed the provision of library services in several ways. The finding for this question addresses the growth of information, libraries as learning organisations, increasing costs, and the demands of users.

9.2.1.1 Growth of Information

In South Africa, academic library consortia responded to the growth of information by collaborating in joint purchasing of e-resources and the provision of inter-lending and document delivery services (see 3.3.4 & 7.2.2.1). SANLiC expanded the scope of library consortia development to a national level, preventing member institutions from having to deal by themselves with the overwhelming proliferation of journals (see 3.4.5). Individual academic libraries benefit from affordable access to electronic information through the South African Site Licensing Initiative (see 7.2.2.1). Kenyan, Ghanaian and Nigerian academic libraries have attempted to deal with the growth of information by initiating projects that partner with EIFL and in order to increase access to information (see 7.3.1.1, 7.3.2.1 & 7.3.3.1). Countries outside of Africa have also been successful in this regard using newer technologies, such as cloud-based systems in the case of Australia (see 3.2.1 & 7.4.1.1). Others expanded access to databases beyond their borders, as in the case of China, which purchased 216 foreign databases by 2005 (see 3.2.3 & 7.4.2.1). Hungary's robust growth of its Information and Technology infrastructure helped to stem the growth of information (see 7.4.6.1), and in the United Arab Emirates academic libraries responded, among other initiatives, by teaching information literacy skills to users.

9.2.1.2 Libraries as learning organisations

Through the ZULC and CARLC consortia, academic libraries in Zimbabwe are developing Institutional Repositories (IRs) and moving towards developing ETD databases. In this way, they are adapting to developments in organizational and knowledge management, and benefiting from sharing knowledge and retaining expertise. The adaptation of a common integrated library management system by South African academic libraries helped to support learning, teaching, and research (see 7.2.1.1, 8.1, 8.3). These benefits are evident in Lesotho's LELICO as well (Taole, 2009). The development and adherence to bibliographic and open access standards (see 7.2.3.1) are further examples in several countries of consortia members' becoming learning organisations. This has led to common standards across member institutions that improved the quality of library services and

increased access to resources. In Ghana, cooperation among academic libraries transformed academic libraries as learning organisations and expanded access to scholarly resources at affordable prices (see 7.3.2.1). Continuous staff development programmes in the case of Chinese consortia improved the knowledge of staff in many of its academic libraries (see 7.4.2.1).

9.2.1.3 Increasing Costs

Cooperation among libraries in consortia has achieved the benefits of economics of scale. In South Africa, SANLiC is helping academic libraries to manage the increase in costs of subscriptions to journals through its South African Site Licensing Initiative (see 3.4.5 & 7.2.2.1). Zimbabwe's academic libraries have improved access to scholarly content through cost-effective ways via consortium-based purchases (see 5.4 & 7.2.3). The provision of discounts now makes it affordable to subscribe to a wider selection of electronic journals (see 5.2.9 & 7.2.3). In Kenya's academic libraries the shift from ownership to access was facilitated through its consortia, reducing costs significantly (see 7.3.1.1). Consortia in Nigeria and Ghana collaborated with EIFL and to reduce subscription costs for their members (see 6.3.2.1 & 7.3.3.1).

9.2.1.4 Demands of Users

In Malawi, academic librarians are offering information literacy training to academic staff and students to address changing user demands (see 7.2.2.1). In South Africa, academic libraries are addressing user demands for quality scholarly content in scientific and interdisciplinary databases by exploiting the national site license initiative. The Chinese government is investing in the development of its national information infrastructure to strengthen a network of digital libraries and repositories for the ultimate advantage of users. Clearly the major beneficiaries of academic library consortia have been the community of academic library users (see 7.4.2.1).

Academic library consortia have successfully changed library service provision significantly for the clientele of academic libraries across the world, and this success promises the potential to extend the benefits to other types of libraries, as well as to national development needs. This has not gone unnoticed in Zimbabwe where ZULC and CARLC have been the prototypes. The ZIMLA advocacy workshop held in May 2016 at Cresta Lodge in Harare called on libraries to strengthen their programmes in support of national development goals (ZIMLA, 2016). This study anticipated this possibility several years earlier, and makes a solid contribution on how its library consortia can spearhead the process.

9.2.2 Sub-question 2: What are the significant developments in the history of library consortia in Zimbabwe?

Library consortia development has gone through various phases from their inception to the current stage of development. The significant events in the history of library consortia in Zimbabwe include the following:

- The formation of ZULC in 2001 by seven University libraries, and CARLC by ten technical colleges in 2000, to increase collaboration and resource sharing among academic libraries initiated the first library consortia in Zimbabwe (see 3.4.4);
- ZULC and CARLC engaged with EIFL since 2001 to facilitate wider access to scholarly communication (see 3.3.1 & 5.2.10). Development partners, including EIFL, have more generally been instrumental in supporting library consortia in Africa and promoting access to e-resources through the PERI project (see 3.3.1);
- The development of constitutions, governance and membership structures soon after their establishment was another significant development. Both ZULC and CARLC have constitutions, governance structures, and working groups. The proposed general library consortium will align its constitution with those of the existing consortia to foster unity of purpose (see 3.3.4, 5.3.3 & 7.6);

- Since 2002, ZULC has formulated standards to guide its development. These standards relate to Staffing and Continuous Professional Development and Workplace Learning (CPDWL), Collection development, Organization of Resources (bibliographic standards), Information services, and Information literacy and E-learning. These standards are a blend of the American Library Association Standards for Academic and Research Libraries (2003) and the Zimbabwe Council for Higher Education (ZIMCHE). However, CARLC has still to develop its own standards, and is relying on Public Service standards;
- There has been an increase in ZULC membership from the initial seven in 2002 to the full membership status of eighteen and six affiliate members in 2016 (Chikonzo, 2014; ZULC, 2016). This number may increase as more state and public universities will be licensed to operate in 2017. CARLC membership will also increase as a result of the ongoing drive towards granting degree-awarding status for colleges;
- The promotion of Open Access and the adoption of an Open Access policy by government and Higher Education ministries in 2012 has resulted in an increase in the number of IRs. CARLC members have yet to embark on Open Access Initiatives. The new federated library consortium can assist in achieving this at a national level (see 6.3.1 & 6.3.6);
- The enlistment in 2016 of eight ZULC open access repositories on the Directory of Open Access Repositories (Open DOAR, 2016) is a significant development in improving the visibility of the scholarly content of Zimbabwe's academic institutions on the international knowledge scene, but more importantly also on the national scene to support ZIMASSET programmes and projects.

The proposed federated library consortium will mark a significant further development in the history of library consortia in Zimbabwe, and support Zimbabwe's national development agenda. It will operate along the lines of SANLiC's former structure as the Coalition of South African Consortia (COSALC) in South Africa, but institutions can join as individual members of one of the three consortia. This will

significantly widen access to information relevant to national development (see 1.3; 8.1; 8. 2 & 8.3).

9.2.3 Sub-question 3: What have been the successes and challenges of library consortia in other countries, and in the Southern African region?

The following section will identify some of the significant successes and challenges of library consortia in other countries, and in the Southern Africa region. The full list can be found in Chapter 6.

9.2.3.1 Successes

The successes selected are as follows;

- China has established library consortia at various geographical levels to support cooperative acquisitions, cataloguing, reciprocal borrowing services, inter-library borrowing, Interlending and document delivery services (ILDD), provision for staff training and technology transfer. What is significant for national development are the National Library Consortia, for example, CALIS, CASHL, and NCRP. These library consortia advanced a national information system to underpin economic growth and competitiveness. The success of these library consortia could not have been possible without the commitment of members and the funding from national government. The Chinese model has modernized the country's library systems while accommodating all types of libraries to support its national development goals (see 3.2.3 & 7.4.2);
- The desire to meet rising demands from customers, adapting to new technologies, and purchasing a wide range of electronic resources prompted modern libraries in Hungary to work together as a consortium (Csajbók, *et.al.* 2012). The collapse of communism in the 1990s led to the development of a

new socio-economic system, which required a robust national information infrastructure that included libraries. Library consortia worked with developing partners EIFL, and ICOLC to secure financial support. Partnerships with publishers also contributed towards National Site licensing to enable access to scholarly communication to support learning, teaching, and research. A number of significant Hungarian library consortia-like programs such as FEFA (the Orientation towards European Development Fund), OTKA (Hungarian Research Fund), and EISZ (Electronic Information Service) were implemented to widen access to information and to spur national development (see 3.2.5 & 7.4.5);

- The development of library consortia in South Africa during the last decade of the twentieth century involved the establishment of vibrant academic library consortia for various geographic regions. These progressed to form Coalition of South African library consortia (COSALC), which then became the South African National Library and Information Consortium (SANLiC) in 1999 to broaden the scope to a national level. SANLiC's mission is to facilitate, on a non-profit basis, affordable access to scholarly electronic information in support of the learning, teaching and research activities of its members (see 3.4.5). SANLiC managed to broaden access to electronic information through the establishment of the national site licensing activity within its structures which became widely known as the South African Site Licensing Initiative (SASLI). The development trajectory of South Africa's library consortia is the successful movement from a provincial and regional to a national focus;
- The development of MALICO emerged with support from EIFL and. Through collaboration with its development partners OSISA, the University of Malawi, and the World Bank, MALICO has widened access to information through the use of Very Small Aperture Terminal (VSAT) (see 7.2.1.1). The consortium also cooperated with its national research and education network (MAREN) to enable affordable access to scholarly communication, and has helped in the development of open access repositories and the adaptation of open access policies (see 7.2.1.1).

9.2.3.2 Challenges

The challenges selected are as follows:

- In Kenya, just like most developing countries, securing funding to sustain operations has been critical for the success of Kenya Library and Information Consortium (KLISC), considering that socio-economic conditions fluctuate. Furthermore, government priorities can shift and affect library consortia activities with regards to payment of subscriptions. The lack of reliable funding has had an effect on the timely payment of subscriptions by members to KLISC, resulting in publishers disconnecting access to electronic resources (see 7.3.1.2);
- In India, the harmonization and rationalization of library consortia activities to benefit participating members and prevent unnecessary duplication of effort has been a serious challenge. India has also had to grapple with collective bargaining and centralized subscription in order to reduce working hours spent by Indian university libraries (see 8.2 & 8.3). An attempt to deal with this challenge has been the move towards mergers. For example, UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium merged to form Consortia for Higher Education E-Resources (e-Shodh Sindhu; see 6.2.10; 6.3.5 & 8.3.);
- In Ghana, CARLIGH has had to grapple with the challenge of providing training and education to librarians and policy makers about licensing and negotiation skills. South Africa's SANLiC and India's INFLIBNET however have examples on how to produce aggressive capacity building initiatives on managing the licensing of electronic content (see 7.3.2.2 & 8.3);
- In the United Arab Emirates (UAE), library consortia are using resource sharing as a strategy to deal with the challenge of achieving economies of scale – through, for example, shared storage and purchases of scholarly content resources. Such developments are common among academic library consortia in several other countries too (see 3.2.1 & 3.2.2).

The federated library consortium will need to harmonise the development of the library consortia in Zimbabwe by providing opportunities for different types of libraries to benefit from affordable nationwide access to e-resources. The federated consortium will have to work with key stakeholders, including government and development partners, to promote access to information to support national development programmes.

9.2.4 Sub-question 4: What have been the successes and challenges of library consortia in Zimbabwe?

ZULC and CARLC have played significant roles in promoting the idea of consortia in Zimbabwe, and in developing their members. CARLC has not been as effective as ZULC, but the move towards offering degree programmes is compelling CARLC members to appreciate the need for a vibrant library consortia. Four CARLC members have already affiliated to ZULC, and this bodes well for consolidating consortium development more generally. Their successes have been the following:

- Members benefit from discounts from publishers, from access to electronic resources, and from teaching, learning and research through innovative e-resource projects;
- The standards of excellence for ZULC and CARLC have accelerated the development of university libraries in Zimbabwe. The standards also assist ZIMCHE with regards to the accreditation of universities in respect of their libraries;
- ZULC successfully lobbied the government and other stakeholders through the Ministry of Higher Education Science and Technology Development to adopt the Open Access Initiative. This has led to the establishment of institutional repositories and repositories for Electronic Theses and Dissertations, for example, UZSpace (UZeScholar), NUSTSpace and BinduraSpace. The involvement of the government in the activities of the consortia is just as critical as the support of consortia for government for achieving national development goals (see 6.2.8 & 7.2.10);

- The development of ICT infrastructure to improve access to e-resources and support teaching, learning and research was made possible through the cooperation between university libraries, government, National Research Networks, and Internet Services Providers. This resulted in improved internet connectivity for both ZULC and CARLC;
- ZULC and CARLC have established systems and structures of governance consisting of the secretariat, management, a council of directors and working groups. The legal status of these institutions is derived from the Zimbabwe University Vice-Chancellors Association (ZUVCA);
- ZULC and CARLC have conducted several workshops, conferences, and symposia for the benefit of their members;
- Collaboration with PERI and EIFL have helped academic libraries to widen access to scholarly content from aggregated database vendors and publishers. ZULC's collaboration with secured material and financial support to boost its Institutional Repositories (IRs), but these benefits have not yet filtered through to CARLC since it has not adopted Open Access initiatives;
- ZULC has incorporated Information literacy into the Higher Education curriculum, and this is critical to improve the quality of learning, teaching and research.

The challenges include the following:

- The library consortia do not receive money from the national fiscus and as a result they are self-funded (Chikonzo, 2014). These funds are inadequate and development partners like EIFL and INSAP are crucial to achieve strategic goals;
 - A culture of volunteerism is lacking and it is incumbent upon ZULC and CARLC to nurture this. The situation is worsened by the economic conditions, inducing financial expectations in any engagement;
 - The library consortia should align their own strategic development more directly to national development programmes like ZIMASSET. ZULC has attempted to align its strategic plan for 2013 to 2018 with national development goals, and this should be more explicitly spelled out for CARLC as well;

- State funding will enable library consortia to operationalise its development programmes. State funding is critical for supporting library consortia development. Library consortia development in Hungary, the United States of America and China reflect the ways in which governments can support library consortia in line with national developmental goals (see 3.2.2, 3.2.3 & 3.2.5). The proposed federated library consortium will only succeed through sustainable funding, and while they should consider development partners, membership fees, and grant applications, state funding in some or other format remains critical to ensure steady overall growth;
- Zimbabwe needs to develop a National Site License to narrow the disparities among libraries with regards to access to information, and to ensure an egalitarian model that benefits all consortia members. This will be important for the success of ZIMASSET projects (see 3.5, 3.3.3 & 8.3).

Building on the successes and overcoming the challenges will empower the federated library consortium members to develop and activate a viable national information system to support the development of libraries that actively participate in and secure institutional and public support for Zimbabwe's national development goals (see 3.5 & 8.3).

9.2.5 Sub-question 5: How can the lessons learned from consortia in other countries and in the Southern African region be integrated into a model to support Zimbabwe's national development agenda?

Zimbabwe can learn from both developed and developing countries. A suitable model will include a proper structure, reliable finance, effective governance, well-defined functions, and a special orientation towards Zimbabwe's national development agenda.

9.2.5.1 Structure

South Africa's SANLiC and Kenya's KLISC are good examples of a multi-sector/federated library consortium with a cost-sharing model that can accommodate academic and non-academic libraries. The structure for Zimbabwe will be similar to SANLiC's predecessor, namely COSALC, or the Coalition of South African Library Consortia that eventually included not only academic consortia, but also the public research consortium, as well as the National Library of South Africa (NLSA) and the Library and Information Association of South Africa (LIASA). Other countries have instructive lessons about how important structure is for national development. This structure is ideal for Zimbabwe's national development because many types of libraries are not yet organized into consortia and are not benefitting from any cooperative or collaborative programmes. ZIMASSET calls for the full exploitation of the country's abundant resources, and this requires synergies between potential development partners (see 3.4, 6.6.2, & 7.2.1);

9.2.5.2 Finance

The pattern and level of development of library consortia is shaped by a country's level of socio-economic development, and this implies that a suitable model adapted should match local needs without compromising on standards. Reliable support from the government will contribute to Zimbabwe's library consortia development as a whole, and over the long term. While international support is critical, it does not provide long-term solutions and financial sustainability. This lesson is evident in South Africa, Malawi, Ghana, China, the UAE, and India. Governments can support library consortia development through the development of a national information infrastructure to enable easier and convenient access to the internet. It can also provide grants, as is the case with China, the United Arab Emirates, India, and South Africa. This can also be achieved through Public and Private Sector Partnerships (see 7.6.1 & 8.3). Infrastructural development will facilitate a national information system to improve access to information. State funding is crucial to sustain the ongoing activities of the consortium, and project funding will be useful for special

needs, upgrading, and training. The state should therefore consider its long-term investment to target the achievement of national development goals.

9.2.5.3 Governance

Library consortia need effective governance. There is a correlation between good governance and service delivery (see 8.3). Governance in the proposed model is premised on a system that will eliminate deficiencies relating to human and institutional capacity (see 7.5 & 7.5.3). India's INFLIBNET and South Africa's SANLiC have clearly-defined structures of governance, which is evident from the establishment of directorates, board members, secretariats, and membership structures. The governance of INFLIBNET consists of the Governing Board and Governing Council, with committees for finance and adherence to the constitution. The proposed federated library consortia should therefore look closely at the Indian and South African examples in this regard. Effective structures of governance will be better-gearred to contribute to the national development agenda with regards to human capital development, and scientific research and development (see 3.4, 7.6.2, 8.3 & 8.4).

9.2.5.4 Functions

Lessons from India, the Philippines, the United Arab Emirates, South Africa, Kenya, and Malawi revealed that library consortia should fulfil a number of key functions that include licensing, negotiations and access, collection development, providing user support and technical services, promoting compliance with standards, and education and training (see 7.4 & 8.2.4). These functions should be clearly defined and spelled out. They are important because they are the *raison d'être* for the existence of the consortium. In Zimbabwe, the proposed federated library consortia will oversee national license contracts with regards to access to databases. It will negotiate with publishers, database vendors and aggregators to provide affordable access to electronic resources to all types of libraries. These functions can be effectively fulfilled by members through a strong commitment to mission, strategic direction, and payment of subscriptions. It is important to nurture

a culture of volunteerism to supplement shortfalls in certain functions that contribute to the four clusters of Zimbabwe's national development agenda.

9.2.5.5 Special features

The special features of the proposed federated model are its commitments to the country's national development agenda. This is evident in its focus on ZIMASSET, e-content licensing, and education. China, Hungary, India, South Africa and Kenya provide useful lessons on how library consortia can contribute to national development goals. Library consortia can permeate all levels of society namely sectoral, national, and some have regional and international dimensions to facilitate resource sharing and knowledge transfer. Library consortia programmes in China were synchronised with national development goals through the development of a national information infrastructure to strengthen regional, cross region and national library consortia through a network of digital libraries and repositories. The collaboration of libraries in consortium activities enables them to contribute more meaningfully to socio-economic transformation than when working as single entities (see 7.4.2.1). A federated library consortium can incorporate each library into a larger vision that connects it to national development programmes (see 8.3.1). In Zimbabwe, the proposed federated library consortium can connect the country's libraries with relevant government departments and other development partners to widen access to information to support ZIMASSET (see 7.3.1). Lessons from other countries inside and outside of Africa reveal that central to this initiative will be the Zimbabwean National Site licensing initiative (see 3.3.2, 7.6.5.3, & 8.3.2), and education and training (see 7.2, 7.3, 8.4, 8.6.5.4, & 8.3.3).

9.2.6 Main Research question: What lessons can Zimbabwe learn from the successes and challenges of library consortia in Southern Africa and elsewhere to construct a model that will support the country's national development agenda?

All the data collected, analysed, and interpreted in chapters two, three, five, and six were distilled to produce the key lessons from consortia in other countries and in Southern Africa. These lessons framed the proposed model for accelerating library consortium development in Zimbabwe, and for supporting its national development agenda. The proposed federated consortium model in chapter seven is therefore based on evidence of the experiences of ZULC and CARLC, as well as the successes and challenges of consortia in many countries, with a special focus on those in the Southern African region. The model focuses on Zimbabwe's national development Vision 2020, and especially its ZIMASSET economic blueprint, and views the proposed federated library consortium model as a potential developing partner. This model is essentially a coalition of ZULC and CARLC and a third general consortium that will bring together other types of libraries that can collectively contribute to the outcomes and outputs of ZIMASSET in a number of ways. In this way it can support the country's development agenda beyond the terminal dates of 2018 for ZIMASSET and of Vision 2020, and continue to support future national development plans.

The proposed model effectively elevates the fundamental library consortium principles of cooperation and sharing onto the national development stage, and is novel and pioneering. The gestures and general remarks made recently by ZIMLA and some ZULC members about national development and ZIMASSET are given rigorous and scholarly expression in this model. Southern African countries, especially South Africa, have provided some instructive lessons. But whereas South Africa has been more concerned about library transformation to correct past imbalances, the proposed model for Zimbabwe seeks to coordinate its libraries in a federation of consortia to support its national development agenda. In this regard, Malawi's MALICO, which has also exploited partnerships to widen access to information in support of that country's national development, is another useful example, and shares similar features with Zimbabwe's proposed model (see 7.2.2.1). ZIMLA's recent conferences (ZIMLA 2014 to 2016) have in general terms referred to libraries, national development, and ZIMASSET. This study was however initiated several years earlier, making its findings both timely and important.

9.3 General recommendations

The following recommendations are based on the findings set out above:

- The ZIMLA in collaboration with existing library consortia should engage key stakeholders including the government and development partners to initiate discussions at the highest government and professional levels about the federated library consortium model. A number of institutions can be instrumental to achieve this goal. For example, the National Library and Documentation Services, the National Archives of Zimbabwe, ZULC, CARLC, the Ministry of Information, Internet Services Providers, Zimbabwe Research and Education Network, and the Library boards appointed by the Ministry of Primary and Secondary Education to assist public libraries. These boards provide an important point of contact between practicing librarians, public servants, and political officials;
- Key stakeholders that include the National Library Boards, Discipline Coordinators for Library and Information Science, National Library and Documentation Services (NLDS), ZULC and CARLC leadership should be thoroughly consulted and take the lead in building the federated library consortium, and implementing lead ZIMASSET-related projects;
- A framework and a time-line for short-term, medium-term, and long-term objectives, with assigned responsibilities for their achievement should be produced, and monitored;
- The proposed model should be the subject of discussion and debate, and not be adopted uncritically. In other words adaptation should be encouraged in order to accommodate issues and challenges overlooked in this study. This could proceed as a number of workshops on specific aspects of the model;
- Members of the federated consortium should be involved both in implementing ZIMASSET projects through assistance to Ministries and lead institutions, as well as through raising publicity among the general public about the country's national development plans. In other words, involvement should be at the highest and lowest levels;

- There should be more constructive engagement with library consortia in the countries examined in this study as helpful for building Zimbabwe's federated model. Networks, Memoranda of Understanding (MOUs), exchange programmes, and collaborative research are some key focus areas;
- Lobbying for financial support from government and other stakeholders that include local and international development should be a priority, and the task of a dedicated committee;
- There should be a special investigation into the establishment of the general consortium, involving representatives from public, school, and other special libraries. Developing and consolidating structures for connecting the library consortia are necessary to ensure effective and successful operationalization of the federated model;
- Consultation with international and regional library organizations such as IFLA and the recently-established AFLiA, the International Coalition of Library Consortia (ICOLC), as well as development partners such USAID, and EIFL will be necessary.

9.4 Recommendations for future research

- There is need to investigate alternative funding models for the sustainability of library consortia in Zimbabwe. South Africa, Hungary, India and United Kingdom provide funding models that could offer useful lessons for the proposed federated library consortium in Zimbabwe;
- How to build a culture of volunteerism should be investigated comprehensively by looking at other sectors and other countries. The proposed federated consortium model is itself a kind of volunteerism responding to a national call;
- How to synchronise library consortia activities with national development goals is a critical area that needs to be investigated. Special task teams should be appointed in the case of ZIMASSET, but at the international level cross-country research will contribute to a body of knowledge in this area;
- The role of the state in negotiating and paying for licenses for the benefit of library consortia and participating members is worth investigating. More

specifically, how can countries like Zimbabwe develop models of National Site Licensing for consortia purchasing?

9.5 Conclusion

The study investigated the development of library consortia in Zimbabwe, and proposed a model that will both accelerate their development and support the country's national development agenda. It examined ZULC and CARLC, and analysed the lessons that they can learn from the successes and challenges of library consortia in Southern Africa and other countries. The proposed federated model based on all the evidence will require the support of all stakeholders, but some aspects can be operationalised quite quickly, and its relevance will extend beyond the terminal dates of the current national development plans.

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APPENDIX 1: QUESTIONNAIRES FOR LIBRARY STAFF

Research topic: Library consortia and Zimbabwe's national development agenda: towards constructing a suitable model

Introduction

Researcher: Collece Takaingehamo Chisita

The research aims to gather information pertaining to library consortia and Zimbabwe's national development agenda with the main intention of constructing a suitable model. The information you will provide will be used primarily for the research. The researcher will uphold the research participant's right to confidentiality and anonymity. The findings and recommendations from this research will be made available to the Library consortia in Zimbabwe, library school, policy makers and general public. The answers you will provide will be used for the purpose of the PHD research. Your cooperation is greatly appreciated.

Instructions

- 1) Fill in the blank space(s)
- 2) Tick the correct answer where appropriate

Bio-data of personnel involved in resource sharing in academic libraries

1. What is the name of your institution?

.....

2. Specify your rank by choosing from the following.

Senior Library Assistant

Assistant Librarian

Deputy Librarian

3. How long have you been in your current rank?

- 1 - 2 years
- 3 - 5 years
- 6 - 8 years
- 9 years or more

4. Indicate your highest qualification.

HND Bachelor's Degree Masters

Library Consortia impact on academic libraries

5. Indicate the reasons why your institution subscribes to a library consortium. You may tick more than one.

- Increasing costs
- Growing demands of users
- Discounts and subsidies
- Need to cope with increasing volumes of information
- Access to technology

5. Indicate the reasons why your institution subscribes to a library consortium

- Increasing costs
- Growing demands of users
- Discounts and subsidies
- Need to cope with increasing volumes of information
- Access to technology

6. How long has your institution been a member of the consortium?

1- 4years

5-10 years

More than 10 year

7. Indicate your response to the following: Funding is critical for the sustainability of library consortia?

A. Strongly Agree

B. Agree

C. Neut

Models of Library Consortium

8. Which type of library consortia models are suitable for Zimbabwe? (You can tick more than one)

Multi-sector (cutting across sectoral differences)

Sectoral (representing a specialised sector)

Regional (with decentralized structures - *representing a r*)

Centralized (managed from a central point)

National (representing all consortia in a country)

Other

9. What benefits does your institution derive from membership of the library consortium?

Resource Sharing

Ease of use of resources through OPAC

Opportunities for collaboration

Improved quality of library services

Opportunities to network and develop as a group

All of the above.

10. Using the space below explain briefly what you think needs to be done to strengthen ZULC and CARLC.

ZULC

.....
.....
.....

CARLC

.....
.....
.....

11. How often does your consortium provide opportunities for continuous professional education?

| | |
|-----------------------------|----------------------|
| | <input type="text"/> |
| None | <input type="text"/> |
| Once per year | |
| Twice per year | <input type="text"/> |
| Thrice per year | <input type="text"/> |
| Four times per year | <input type="text"/> |
| Five or more times per year | <input type="text"/> |

12. How can consortia development be accelerated to contribute to Zimbabwe's national development programmes

.....
.....
.....

Thank you

APPENDIX 2: INTERVIEW SCHEDULE FOR HEAD LIBRARIANS IN UNIVERSITY AND COLLEGE LIBRARIES

Research topic: Library consortia and Zimbabwe's national development agenda: towards constructing a suitable model

Introduction

Researcher: Collence Takaingehamo Chisita

The research aims to gather information pertaining to library consortia and Zimbabwe's national development agenda with the main intention of constructing a suitable model. The information you will provide will be used primarily for the research. The researcher will uphold the research participant's right to confidentiality and anonymity. The findings and recommendations from this research will be made available to the Library consortia in Zimbabwe, library school, policy makers and general public. The answers you will provide will be used for the purpose of the PHD research. Your cooperation is greatly appreciated.

1. Rank/Position.....

2. How long have you been in your current position?

- | | |
|-------------------|--------------------------|
| 2-4 years | <input type="checkbox"/> |
| 5-6 years | <input type="checkbox"/> |
| 7-8years | <input type="checkbox"/> |
| more than 10years | <input type="checkbox"/> |

3. Highest qualification

Higher National Diploma

Bachelors Degree

Masters Degree

Anything other than the above please specify

.....
.....
.....

4. To which Consortium does your library belong ?

Zimbabwe University Library Consortium (ZULC)

College and Research Library Consortium (CARLC)

5. Reasons for joining library consortium

.....
.....
.....

6. Benefits of library consortium membership

.....
.....
.....

7. How to strengthen Zimbabwe's library consortia?

.....
.....
.....

8. Suitable library consortium model in Zimbabwe

.....
.....
.....

9. How can library consortia contribute towards Zimbabwe's national development programmes?

.....
.....
.....

APPENDIX 3: LIST OF DOCUMENTARY EVIDENCE

Bindura University of Science Education General Information and Regulations : Prospectus, 2015-2017. Bindura: Department of Public Relations and Protocol,

Bindura University of Science Education

<http://www.zulc.ac.zw/> ZULC home

Minutes of the 23rd Zimbabwe University libraries Consortium(ZULC) Council of Directors meeting held at University of Zimbabwe main Boardroom 7 December, 2006.

Minutes of 26th Zimbabwe University Library (ZULC) Council of Directors meeting held at the National University of Science and Technology Harare Office Boardroom 31st July, 2007.

Minutes of the 30th Zimbabwe University Library Consortium (ZULC) Council of Directors meeting held at the Zimbabwe Open University (ZOU) in the Director of Library and Information Office Brystan, House 28th. July, 2008.

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Zimbabwe University Library (ZULC) constitution

Zimbabwe University Library (ZULC) Standards

APPENDIX 4: LETTER OF AUTHORISATION



Zimbabwe University Libraries Consortium

c/o University of Zimbabwe Library, P.O. Box MP 45 Mt Pleasant,
Harare, Zimbabwe
Tel: 263 4 30321 ext. 1164 Fax: 263 4 335383

TO WHOM IT MAY CONCERN

Dear Sir

This serves to inform you that Mr. C. T. Chisita (10683870 Doctoral LIS) is a registered student with the University of Pretoria and is conducting research on **“Investigating the role of Library Consortia in optimizing library usage in academic institutions in Zimbabwe.”** This is a phenomenological study aimed at gathering scientific data relating to resource sharing. Mr. Chisita will uphold ethical considerations of scientific research since his research will have to be endorsed by the ethics Committee OF THE University of Pretoria.

This research is aimed at generating information and knowledge relating to models of resource sharing that can be useful and applied to the various sectors of the library profession in Zimbabwe including the Zimbabwe University Library Consortium (ZULC) and College and Research Library Consortium (CARLC). He is being supervised by Professor Archie Dick from the Department of Information Science. I would be very grateful if you can assist him as he will be collecting data through interviews and questionnaires. On behalf of ZULC, I hope you will provide Mr. C. T. Chisita with the necessary support to enable him to complete his research.

Yours faithfully



Lawrence Chikwanha

ZULC CHAIRPERSON

APPENDIX 5: INFORMED CONSENT FORM

(Form for research participants' permission)

This form must be signed by each research participant and must be kept

1. Title _____ of _____ research

.....
.....
.....

2. I..... do hereby voluntarily grant my permission for participation in the research project as explained to me by.....
.....

3. The nature, objective, possible safety and health concerns have been clarified to me and I understand them.

4. I understand my right on whether to choose whether to participate in the research project and that the information I will volunteer will be treated with strict confidentiality and that my right to privacy and anonymity will be upheld by the researcher. I have been informed that results of the research will be used for publication.

5. Upon signature of the form you will receive a copy.

Signed.....Date.....

Witness.....Date.....

Researcher.....Date.....

APPENDIX 6: LIST OF INDIA'S LIBRARY CONSORTIA

- CALIBNET(Calcutta Library Network, 1993);
- DELNET (Delhi Library Network ,(now Developing Library Network, 1988);
- BONET (Bombay Library Network, 1992);
- PUNENET (Pune Library Network);
- MALIBNET (Madras Library Network, 1991);
- MYLIBNET (Mysore Library Network, 1995);
- HYLIBNET (Hyderabad Library Network), ADINET (Ahmedabad Library Network, 1995);
- COMSAC (Consortium for Material Science and Aero-space Collection, established in 1998 by National Aerospace Laboratory (NAL) ;
- FORSA (Forum for Resource Sharing in Astronomy) consortium: FORSA has the privilege to be known as India's first consortium established in 1981;
- TIFR (Tata Institute of Fundamental Research) Consortium was set up in 2000 by TIFR to subscribe to resources for libraries of its affiliated institutions and laboratories. It was centrally funded and the closed group consortium;
- INDEST (The Indian National Digital Library in Engineering Sciences and Technology) consortium INDEST established in (2003) by the Ministry of Human Resource and Development (MHRD) Government of India. It is an open and centrally funded consortium;
- NKRC (National Knowledge Resource Consortium). The NKRC was established in 2009 as network of libraries and information centres of 39 CSIR (Council of Scientific and Industrial Research) and 24 autonomous institutions and professional bodies under the Department of Science and Technology. The network provides access to e-journals, patents, standards, citation and bibliographic databases;

- CeRA (Consortium for e-Resources in Agriculture). The CeRA was established in 2007 for facilitating accessibility of select scientific journals related to agriculture and allied field, to all researchers in the field of agriculture and related fields;
- IIM Library Consortium. The first six IIMs (Indian Institute of Management) setup a library consortium in 2000 with a common goal of sharing resources. They jointly approached the publishers for online access to e-resources in management, business and related subject areas;
- Department of Atomic Energy Consortium: DAE consortium was formed in 2001 by the Department of Atomic Energy, Government of India, to facilitate atomic research in the country;
- HELINET (Health Sciences Library and Information Network) Consortium. HELINET consortium was first of its kind established for resource sharing and shared budget based subscription by Rajiv Gandhi University of Health Sciences for its 25 affiliated medical colleges in the state of Karnataka. Its membership is open to different types of libraries;
- MCIT (The Ministry of Communication and Information Technology) Library Consortium. MCIT Library consortium consists of three departments namely, the Department of Information Technology (DIT), the Department of Telecommunication (DOT) and the Department of Post (DOP);
- DelCON (DBT e-Library Consortium): The DelCON was established as a closed group consortium in 2009 by the Department of Biotechnology (DBT);
- ERMED (Electronic Resources in Medicine) Consortium. ERMED was initiated in 2008 by the Director General of Health Services (DGHS) to develop nationwide information resources in the field of medicine for delivering effective health care for all;
- ISRO (Indian Space Research Organisation) Consortium. Spacenet is a closed user group setup by Department of Space (DoS)/ISRO to share internal resources and communication to all its research laboratories; and

- N-LIST (National Library and Information Services Infrastructure of Scholarly Contents).

APPENDIX 7: LIST OF LIBRARY CONSORTIA IN THE PHILIPPINES

1. The Inter-Institutional Consortium (IIC) was the first consortium established in the Philippines in 1972, with five (5) institutional libraries as original members serving five universities, namely De La Salle University-Manila, St. Scholastic's College, St. Paul College-Manila, Philippine Christian University, and Philippine Normal University with Adamson University being the newest member
2. The Aurora Boulevard Consortium Libraries, Inc. (ABC) was founded in 1997 and it consists of libraries located in institutions along Aurora Boulevard, Quezon City, such as: the Central Colleges of the Philippines (CCP), the National College of Business and the Arts (NCBA)-Quezon City, the Philippines School of Business Administration (PSBA) – Quezon City, the St Paul University – Quezon City (SPUQC), Technological Institute of the Philippine (TIP) – Quezon City, University of the East Ramon Magsaysay Memorial Medical Center (UERMMMC) and the World City Colleges (WCC) – Quezon City. This is a cooperative network of libraries for resource sharing to realize economics of scale in the digital era.
3. Davao Colleges and University Network (DACUN) was officially established in 2004 to support the academic, research, and extension agenda and to promote a workable arrangement that would facilitate networking among its member-institutions. DACUN is made up of ten universities, all located in Davao.
4. The Inter-University Consortium (IUC) was established exclusively to serve the Business Administration faculty and graduate/post graduate students enrolled in the program of the member schools such as the University of the Philippines College of Business Administration (UP-CBA), the Asian Institute

of Management (AIM), the Ateneo de Manila University Professional Schools (ADMU-PS) and the De La Salle University (DLSU). Fresno (2008) states that the consortium was formed mainly to promote and advance human knowledge through education, research and professional training through shared and maximized utilization of library facilities including borrowing/lending of library materials.

5. The Ortigas Centre Library Consortium (OCLC) is a regional grouping of libraries that are geographically bound together around the business district of the Ortigas Centre, the member libraries of the OCLC are able to successfully promote inter-library cooperation through book loans and provide access to the resources as well as services of each other.

APPENDIX 8: LIST OF LIBRARY CONSORTIA IN SOUTH AFRICA

- Gauteng and Environs Library Consortium (GAELIC, formed in 1996);
- Free State Libraries and Information Consortium (FRELICO, established in 1996);
- Cape Libraries Cooperatives (CALICO, founded in 1996);
- Eastern Seaboard Association Libraries (ESAL, established in 1999); and
- South Eastern Academic Libraries' System (SEALS, established in 1996).