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SUCCESSFUL RESOURCE SHARING IN ACADEMIC AND RESEARCH LIBRARIES  
IN ILLINOIS: LESSONS FOR DEVELOPING COUNTRIES

BY

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THESIS

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## **ABSTRACT**

With diminishing finances, it is rarely possible for a library or information center to have enough resources to fulfill the needs of its clients. Libraries working under effective collaborative initiatives in developed countries have registered tremendous success compared to libraries in developing countries. There is a growing need for libraries in developing countries to redefine their resource sharing strategies so as to benefit from library collaboration that can result in a more effective means of meeting the needs of their library users.

This thesis looks at issues surrounding the factors that have led to successful resource sharing among academic and research libraries in developed countries and how to practically apply such success factors to improve collaboration among academic and research libraries in developing countries. Consortium of Academic and Research Libraries in Illinois (CARLI) and Consortium of Uganda University Libraries (CUUL) are the focus in this research.

Emphasis has been placed on the establishment of consortium leadership, the sharing of responsibility and decision making processes, sources of consortium funding, the role and responsibility of participating member libraries and their contributions to and expectations from the consortium.

Consortium leadership, the perceived need for cost effectiveness, quick and efficient delivery of library materials, electronic resources brokering, reciprocal borrowing, and shared integrated library system are key factors in providing a strong consortium framework. Consortium history, culture to volunteer, building trust in members, accountability, and innovativeness are necessary steps towards a successful library consortium.

*To my late father*

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the study

With diminishing finances, it is rarely possible for a library or information center to have enough resources to fulfill the needs of its clients. What is being delivered is only a portion of what their clients actually need (Ramos & Mohd Ali, 2005). Collaboration is widely recognized as the best way for libraries to cope with the ever increasing challenges: volume of information resources; nature and quality of information; user needs and expectations; information and communication technology competencies and infrastructure; inflated cost of information resources; and staffing needs. However, although these challenges have continued to prevail, libraries working under collaborative initiatives like the Consortium of Academic and Research Libraries in Illinois (CARLI) have registered tremendous success.

This thesis reports the findings of a thorough study to establish the factors that have led to the success of CARLI and how such success factors can be applied in libraries of developing countries like Uganda. Emphasis is placed on the establishment of CARLI leadership, the sharing of responsibility and decision making processes as well as sources of funding for the consortium. Also central to the research study is exploration of the role and responsibility of participating member libraries and their contributions to and expectations from the consortium.

I contend that lack of funding to facilitate consortium activities is not the central factor in the failed progress of the planned consortium activities in Uganda, rather it is the lack of committed leadership and cooperation among participating libraries that is responsible for the lack of progress. In any kind of organization or cooperation like a library consortium, funding has never been enough due to ever changing technologies and continuous demands from library patrons. However, good leadership and cooperation among membership plays a bigger role in achieving a common goal. Having and working towards a common goal, under dedicated, dynamic and faithful leadership with an active and energetic membership plays a great role in the success of a consortium.

To assist in the possible improvement of consortium operations in Uganda, I need to understand the leadership, responsibility, staffing, collection, policies and procedures, funding and structure of academic libraries in the participating membership of CARLI in comparison with those of Uganda. My research has incorporated interviews with CARLI staff and a questionnaire survey to all the participating CARLI membership.

## **1.2 Problem statement**

There is now ample research on the benefits of library collaboration mainly in developed countries (Kaul 2001, Riley 2006, Wright 2006, Bennett 2007, Foulonneau et al. 2007, Williams 2008, Feather, Bracken & Diaz 2008, Butler 1998, Domatob, 1998). In Africa, a lot of research has been devoted toward the need for collaboration (Musoke 2008, Paulos 2008, Kinengyere 2007, Ibeun & Obasuyi 2007, Amaeshi (Ed.) 2003, Kaul 2001, Rosenberg 2001, Ade Ajayi, Goma & Johnson 1996) and a few registered successes (Musoke 2008, Paulos 2008, Rosenberg 2001, Kinengyere 2007, Ibeun & Obasuyi 2007, Amaeshi (Ed.) 2003, Kaul 2001). However, no research has been reported on how to apply identified success factors from developed countries in order to bring a change in developing countries. Developed countries have registered tremendous success stories compared to less developed countries; failure in developing countries has been attributed to poor funding without looking at other factors like committed leadership and cooperative membership.

The National Council for Higher Education (NCHE) (2007) indicates that there are six public and twenty-four private universities giving a total of thirty registered universities in Uganda. Of these, only twenty-one universities and two research institutions are actively and currently participating in the Consortium of Uganda University Libraries, (CUUL) (2008). It is clear, however, that most of these universities do not have adequate resources to support certain, if not all, areas of their academic and research programmes. Since 2005, access to computer facilities, books and other learning materials has improved; still many are far from reaching ratios comparable to world standards; and, unfortunately, the student to book ratio dropped from twenty-three books per student to nineteen in 2006 (NCHE, 2007). The NCHE 2006 (2007) study further shows that there has been a 9.4% increase in the total number of students that enroll in the universities from 124,313 in 2005 to 137,190 in 2006 without an increase in

the number of information materials in most of these universities. Although there is evidence of no increase in the number of information resources to be used by students in these universities, NCHE instead attributes the low level of research across the higher education spectrum to inadequate funding; more so, the student to book ratio stated above is far below the set standards and NCHE does not suggest for these universities to participate in resource sharing as a way of bridging the student to book ratio.

The NCHE (2007) acknowledges the usefulness of the library, stating that “the library... is the heartbeat of an academic institution”. However, its 2006 study indicates that universities have continued to reduce the amount of money spent on books (0.1% in private and in 2.5% in public universities) and that library space is being converted to student instruction classrooms. This is an indication of low spending on library books; much as these universities are still working harder to acquire information materials, space to store them is also becoming another challenge.

One of the important things I have learned all through the time I have worked at Makerere University Library’s outreach programme in partnership with CUUL as Deputy Country Coordinator for E-resources, on top of other significant institutional challenges among African universities, a committed leadership and membership was noticed as still lacking among CUUL membership. While there are already tangible successes registered by CUUL, still much has not been achieved, like spearheading resource sharing as one of its objectives since inception.

This study begins to address issues that are surrounding the inefficiency involved in partnership, networking and collaboration among university libraries in Uganda. This includes how universities with far better information resources like Makerere University can share with newly established universities lacking sufficient library resources. More particularly, the study directly addresses consortium issues like leadership, communication and membership contribution as key factors in this kind of collaboration.

### **1.3 Objectives of the study**

- Study the consortium history among academic and research libraries in the state of Illinois

- Identify the factors that influence libraries to join and continue to participate in a consortium
- Determine how consortium values affect participating libraries
- Determine the effectiveness and extent of resource sharing among CARLI member libraries
- Identify factors that lead to the success of a consortium other than money
- Suggest practical ways for resource sharing in developing countries like Uganda

#### **1.4 Limitations of the study**

Any comparison of differing societies, or search for causal relationships must be conducted within dimensional identities (Amaeshi (Ed), 2003); meaning, a perceived need to understand the economic, political, educational and sociological factors that affect information sharing among universities in both developed and developing countries. While the majority of the developments are standard practice in academic libraries in the developed world, many of these issues are relatively new to us in developing countries, and we have had to contextualize them by finding practical but local ways of addressing some of them (Musoke, 2008).

In this study therefore, I do not fully understand the dimensional identities that exist among CARLI and CUUL; I try to contextualize identified success factors by finding practical but local ways of applying these factors that have led to CARLI advancement putting into context the economic, political, educational and sociological environments of operation between the two consortia.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In my literature review, I have found a good representative literature discussing the need for collaboration among Uganda's universities and research institutions and a few outlines of the benefits so far registered in these universities. However, little is written in detail about resource sharing as a way to bridge the shortage of information resources among these universities. I am grateful to some authors (Musoke 2008, Paulos 2008, NCHE 2007, Rosenberg 2001, Kaul 2001) who identified some of the factors that have hindered collaboration in Africa, although their discussions outline funding as a major factor in this progress as opposed to good leadership, effective communication and responsive membership. By studying the relevant literature, it will help me understand more fully how other factors play a big role in the development of consortium in developing countries.

##### **2.1.1 State of higher education in Uganda**

To date, the existing physical resources of higher education institutions are quite inadequate. Past political instability, lack of financial resources and the general lack of a culture that values maintenance have combined to cause gross negligence in the maintenance of physical infrastructure including laboratories, seminar rooms, libraries, research facilities and staff offices (Musisi, 2003). Higher education received about 10 percent of a total Ministry budget of UGX 619.93 billion in the 2004/05 budget year (Ministry of Education and Sports, 2005), a rate that has remained more or less constant since the mid 1990s. The implementation of cost sharing in institutions of higher learning has increased revenue generation to supplement transfers from the government. In addition to cost sharing, funds are generated internally through private sponsorship of students, consultancies, sales of services and contributions from donors, (Musisi, 2003). However these sources have not been able to accommodate the ever increasing budget needs. Due to such poor funding, much has been left undone.

##### **2.1.2 Structure of academic libraries in Uganda**

According to the Universities and Other Tertiary Institutions Act of 2001, with reference to Makerere University library structure (Makerere University Library, 2007),

the overall administration of libraries is vested in the office of the University Librarian who reports to the Vice-Chancellor through the Deputy Vice-Chancellor in Charge of Academic Affairs (DVC-AA). The University Librarian is a member of Makerere University Top Management and Senate. Within the library, the University Librarian and deputies form the Library's Management team, which works with heads of sections and branch libraries to implement University Library policies and programmes, and enforce library rules and regulations. The policy making body of the University Library is the Academic Programmes and Library Committee, which is a senate committee chaired by the DVC-AA. It is composed of members of Senate representing the sciences, arts and humanities, library, students and other relevant stakeholders.

### **2.1.3 History of consortium in Uganda**

To strengthen the network of librarians, researchers and academics in developing countries and Uganda in particular, the International Network for the Availability of Scientific Publications (INASP) encouraged librarians to form national consortia. During a workshop on the topic of library cooperation for effective provision of information in Uganda and beyond, CUUL was established in 2001. Areas of cooperation include resource mobilization and sharing, and training and marketing of member libraries (Kinengyere, 2007). One of the challenges being addressed by CUUL is the sustainability of e-journal subscriptions at the end of donor funding. In November 2005, CUUL decided on the mechanism of cost-sharing the e-resources, starting in 2006. Out of the 43 registered Programme for the Enhancement of Research Information institutions-(PERI)-Uganda, only 11 (25%) responded to the e-resources sustainability initiative in time for the 2007 subscriptions and this trend has not changed to date (Kinengyere, 2007). The networking and collaboration of CUUL has not yielded good results as outlined in its objectives and this has been blamed on the lack of funds without looking at other factors like the commitment of its membership, and trust from its leadership. Both CUUL and CARLI which began in July 1, 2005, do have a lot in common in their formation. Like UIUC for CARLI, Makerere University Library is the coordinating institution for CUUL under the PERI programme. The current establishment of CUUL as per its constitution (2001) is composed of a five member elected executive committee (Chairperson, Vice Chairperson, Treasurer, Secretary,

Publicity) who conduct CUUL activities in addition to their institutional responsibilities; and a committee of representatives from actively participating institutions called 'Functional committees' who help to coordinate CUUL activities in their respective institutions. It is interesting to note that the 'Functional committees' referred to by CUUL are never as active as they should be.

#### **2.1.4 The need for collaboration**

A perceived need for collaboration among the African university libraries was stated as early as 1990 (Ifidon, 1990); and was outlined in the Carnegie meeting of 2004, which identified the ability to participate in a global economy that is increasingly centered on access to knowledge as a critical key in solving the problems of the African nations. One of the goals of the conference was to develop partnerships between libraries and donors, and establish a platform on which future consortia and agendas could be built. During the meeting, many problems faced by African university libraries were discussed, such as poor networks, little cooperation between institutions that create their own databases of local materials, and very few digitization programs to increase African content on the Web and respond to the thousands of different cultures and languages across the continent.

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

#### **2.1.5 Resource sharing**

The concept of resource sharing has been used in the developed countries as a means to alleviate the resource inadequacies of individual libraries. In Africa, it has been seized upon as a way of sustaining information services. Rosenberg (2001, p. 14-

15) in her paper “The sustainability of libraries and resource centers in Africa” quoted a Kenyan librarian who concluded that “there is no doubt that resource sharing programmes have a significant role to play in developing countries, given the problem of scarce resources” and “if libraries are to continue to meet the demands of other users, increased cooperation and resource sharing are vital”. Rosenberg (1993) continues to note that on the ground there is little in the way of resource sharing. In some ways the situation has deteriorated, as systems that used to work (like the East African Literature Service) have collapsed. The survey (Rosenberg, 2001) of University libraries in Africa found that interlibrary lending (the main, if not the only, form of resource sharing practiced), was minimal, especially in-country and within Africa. Such evidence suggests that there is a lot that needs to be done in order to bring a change about the idea of resource sharing among universities and research institutions. Even though these universities have little to share, even a little sharing may help future sharing of acquisitions in the most demanding subject areas.

#### **2.1.6 Research and research paradigms**

In her paper “Strategies for addressing the university library users’ changing needs and practices in Sub-Saharan Africa”, Musoke (2008) states that there is drastic change in the methods of conducting research and research paradigms. For example, the demand for a multidisciplinary approach to research has meant that a research project in the Medical School, which would ordinarily require medical literature now also requires some social science and ICT components. Such approaches put further demands on the already meager information resources in our libraries, hence the need for sharing. The diversity of research methods is an indicator of the complexity of research and the challenges of meeting the information needs of human beings conducting research. Such challenges call for immediate revival of resource sharing among these universities in order to meet the changing needs. The presence and advancements in information technology can also help in this process.

#### **2.1.7 Policy formation and leadership**

The Association of African Universities (AAU) emphasizes that the way ahead for the development of research and postgraduate capacity in African universities is through selective concentration of resources within the university system, and the

achievement of collaborative links among African universities, and between African universities and research institutions (AAU, 2009). In order to achieve that goal, AAU suggested that providing effective leadership to facilitate meaningful regional inter-university cooperation among African universities may help to ease the resource constraints and to build a viable educational enterprise in Africa capable of meeting the challenges ahead (Ade Ajayi, Goma & Johnson, 1996)

### **2.1.8 Consortium membership**

Among the most serious problems of Uganda's libraries is the low level of and response rate towards collaboration and consortium in a number of library and information science activities. According to Paulos (2008), the most successful libraries in southern Africa, like in Botswana and South Africa, have been able to form strong alliances. Developing complex and strong links and partnerships facilitates the utilization of information resources.

An example of a successful regional network is the Association for Health Information and Libraries in Africa (AHILA). In addition to its international connections, AHILA has two internal concerns—sharing scarce resources through interlibrary cooperation and developing systems for improved bibliographic control of the health literature produced in Africa (Kinegyere, 2008). Such strategies if applied at the national level will not only strengthen regional networks, but also work as satellite communication networks for international organizations to overcome the problems of lack of physical infrastructure and as a basis for enhancing access to information among university libraries with fewer resources.

### **2.1.9 Library funding**

The importance of government support towards consortia is elucidated in the plan of the United Nations (UN) World Summit on the Information Society. This body acknowledges the significance of addressing fundamental issues of development in universal access, infrastructure, information and communication technologies, literacy, skills and training, E-learning, and E-Agriculture (Ibeun & Obasuyi, 2007). If Uganda is a signatory, it should join other countries in the attempt to support libraries and archives. Lack of funding has been a bigger issue among university libraries and has been attributed to lack of understanding of the role of libraries in an institution of higher

learning by university and political leaders as it emerged from the Carnegie conference (2004) and mentioned by many other writers (Musoke 2008, Ade Ajayi, Goma & Johnson 1996, Paulos 2008, Rosenberg 2001). However, not all African countries are dependent on external funding. Libraries in Botswana and South Africa are examples where funding is internally generated and the quality of library resources is very high, (Paulos, 2008). As a source of funding for libraries in Africa, including Uganda, Paulos (2008) in his paper “Library resources, knowledge production, and Africa in the 21<sup>st</sup> century” suggested the need for funding from African governments; the importance of proactive approaches on the part of academic librarians in Africa - including the importance of identifying unique materials in the collections and seeking collaboration to digitize them; and the importance of outreach, in particular, seeking the support of Africans in the diaspora.

#### **2.1.10 Increasing number of library users**

The growing number of university students, the increase in study programmes coupled with paradigm shifts in curriculum and research, the increase in research and the rapid ICT developments have all changed the routines of traditional academic librarianship (Musoke, 2008). The demand for information resources has increased, with diminishing budgets, resulting in a poor service to library users. This is further evidenced in the NCHE report of 2007 as outlined above.

### **2.2 Consortium of Academic and Research Libraries in Illinois (CARLI)**

CARLI is an unincorporated association, with a total of 153 member institutions all over the State of Illinois (CARLI, July 2009).

#### **2.2.1 History**

July 1, 2005 saw the merging of three Illinois academic library consortia to a consolidated consortium called CARLI; the merged consortia include: Illinois Cooperative Collection Management Program (ICCMP), formed in 1986 and provided statewide collection studies and grants; Illinois Digital Academic Library (IDAL), formed in 1999 and provided centralized electronic resource licensing; and Illinois Library Computer Systems Organization (ILCSO) formed in 1980, provided the shared integrated library system Illinet Online which became I-Share in the consolidation. The merging of these three consortia was aimed at improving the efficiency and cost

effectiveness of services, increasing the effectiveness of consortial and member library staff efforts, and creating opportunities to pursue new programs and services that the three constituent consortia would not have been able to provide on their own. CARLI has continued to add new products, services and programs including: The I-Share integrated library system, E-resources licensing, digital collections and statewide collections awards and programs.

### **2.2.2 Strategic plan, values, and goals**

CARLI remains fully committed to fulfilling its established mission:

**The Consortium leads Illinois academic libraries to create and sustain a rich, supportive, and diverse knowledge environment that furthers teaching, learning, and research through the sharing of collections, expertise and programs**

and attaches great importance to cooperation among academic and research libraries of all types, sizes and missions; respect for the diverse missions and populations served by member institutions; recognition of each member institution's autonomy; sharing the full range of academic library resources effectively and economically; free and open access to all intellectual resources; excellence in providing services and programs; innovation in identifying and implementing collaborative solutions to shared challenges; responsiveness to member needs; cost-effectiveness in the delivery of programs, services, and products; careful stewardship of all CARLI resources; protecting the privacy and security of library records; supporting intellectual freedom; and advocacy for academic and research libraries at the local, state, regional and national levels. Furthermore, the consortium reaffirms its commitment to resource sharing, through the continued maintenance and development of its integrated library management system, and the provision of meaningful electronic resources, through brokering, subsidization and cost-sharing agreements as outlined in its four broad strategic priorities: Collaboration and Leadership, Innovation, Resource Sharing, and E-Resources (CARLI, 2007).

## **2.2.3 Membership**

### **2.2.3.1 How to become a CARLI member**

All higher education institutions in Illinois that are recognized by the Illinois Board of Higher Education, and are members of the Illinois Library and Information Network (ILLINET) are eligible for membership in CARLI; and will agree to abide by the terms and conditions of the CARLI Membership Agreement and any other subsidiary agreements governing participation in a specific CARLI service. However individual member libraries retain autonomy over their own operations. CARLI membership includes three categories each with a different entitlement and responsibility, and different annual membership fees. As of the fall of 2009 there were 107 Governing, 30 Associate and 16 Basic members.

### **2.2.3.2 Membership categories and obligations**

Governing membership is entitled to participate in all CARLI products, services, and programs at the fullest level of central support; participate in all CARLI committees, task forces, and user groups; receive priority status on waiting lists to join I-Share and other premium services like enrollment in training sessions. Associate membership is eligible for most services and programs, and participates in CARLI governance as a group represented by a single voting member on the CARLI Board of Directors. Basic membership qualifies for selected services and programs, and does not participate in CARLI governance or voting. CARLI member institutions may upgrade to a higher or move to a lesser membership level by following the CARLI Bylaws. Eligible institutions that have not joined CARLI may participate in CARLI email discussion lists, and may attend CARLI training events and workshops at a fee sometimes higher than that of the three membership categories.

### **2.2.3.3 Membership benefits**

CARLI serves over 98% of Illinois higher education students, faculty and staff at 153 member institutions of which 76 institutions benefit from I-Share; E-resources brokering with over 1,000 discounted subscriptions to electronic journals and other resources; a 24-hour delivery by Illinois Library Delivery Service (ILDS) to 141 CARLI libraries and all the state's regional library systems; the Book Digitization Initiative for Illinois academic and research libraries; in-house development of VuFind an open

source front end to I-Share catalog; and participation in the University of Rochester's Extensible Catalog project.

#### **2.2.3.4 Funding sources**

CARLI's sources of funding include annual subscription membership fees where Governing membership contribution ranges from a minimum of \$1000 to a maximum of \$10,000 and is calculated by student Full Time Equivalent (FTE) enrollment and institution type, Associate members pay \$500, and Basic membership is \$100. Other funding includes contributions towards e-resources brokering, development of library systems like I-share catalogue and VuFind, support for digitization projects and the Open Content Alliance, through conducting workshops where each membership contributes different fees to participate in any activity, and grants from the state and federal governments. The CARLI financial year runs from July 1 – June 30.

#### **2.2.4 Governance**

CARLI operates under the direction of the CARLI Bylaws 2008 (CARLI, 2008, 2006). The University of Illinois serves as CARLI's fiscal and contractual agent under a Memorandum of Understanding between the Board of Trustees of the University of Illinois and CARLI Board of Directors. CARLI operates as a unit of the University Office for Planning and Administration, University of Illinois at Urbana-Champaign.

##### **2.2.4.1 Board of Directors and committees**

CARLI Board of Directors oversees the affairs of CARLI except those reserved for the entire membership; sets strategic direction of the consortium; oversees all CARLI committees; reviews and approves the detail and the total organizational budget each year; advises and gives recommendations on the hiring and evaluation of the Assistant Vice-President for Planning & Administration/ CARLI Executive Director; and provides advice and input to the University of Illinois in matters relating to the Consortium. The Board meets regularly throughout the year. In addition to the Board of Directors, there are several committees, working groups, user groups, and task groups established to support the Board in carrying out operational and programmatic activities of the consortium; assist the Board in the development, implementation, operation, and evaluation of programs and services; provide the Board with advice and recommendations related to policy, management, fiscal, and on other matters that

require the Board's attention. Each committee or group has CARLI liaison fulltime staff who works as a focal point for a designated committee; committees meet quarterly with CARLI Board of Directors or as required. The committees and groups are required to present reports at the end of each task assigned to them; the reports are published and made public online on the CARLI web page.

#### **2.2.4.2 Board committee organization**

Board committees are of two categories, standing (permanent) committees referenced in the CARLI Bylaws and temporary "ad hoc" groups established to carry out a specific task and then discharged. All committees report to the Board on a schedule established by the Board. Each Board committee has a CARLI staff liaison. Ad hoc groups have sunset dates at which point the group will be discharged.

##### **2.2.4.2.1 Standing (permanent) committees**

There are five permanent committees established by the CARLI Bylaws.

**Executive committee:** The officers of the CARLI Board of Directors shall constitute the Executive Committee. The Committee is advisory both to the Chair and to the Board of Directors on scheduling agenda topics and preparing information for the Board of Directors' review and action. The Executive Committee is authorized to act on behalf of the Board of Directors on any urgent matter requiring Board approval, unless a regular or special meeting of the Board of Directors is scheduled to take place within 48 hours. The CARLI Board elects its own Vice-Chair/Chair-Elect each year to join the current Chair, Past Chair, and CARLI Executive Director in forming the Executive Committee and will meet as needed to update the Board on their plans and actions. CARLI Executive Director is the Staff or Board liaison.

**The finance committee** provides the Board with recommendations related to annual budget requests, the annual budget, the annual financial performance report, and any other financial matters that require the Board's attention. It's composed of four Board members, one each from public institutions, private institutions, community colleges, and one at large. The Past CARLI Chair is the chair of the committee. The Finance committee reports to the CARLI Board of Directors, on a quarterly basis. CARLI Staff or Board liaisons are the CARLI Executive Director, and CARLI Director for Business and Financial Services.

**The personnel committee** provides the Board with recommendations and input into the recruitment, compensation and evaluation of performance of the Assistant Vice-President and Executive Director. The Board, in turn, provides its recommendations to the University of Illinois. The Committee may also provide the Board with recommendations and input into any other personnel matters that require its attention. The Personnel Committee is composed of four Board members, one each from public institutions, private institutions, community colleges, and one at large. The Vice-Chair/Chair Elect is the Chair of the Committee. The group reports to the CARLI Board of Directors and University of Illinois Associate Vice President for Planning and Budgeting on an annual basis. The CARLI Board liaison is the University of Illinois Associate Vice President for Planning and Budgeting.

**Products and Services Vetting Committee (PSVC)** is charged with reviewing suggestions for new and enhanced products and services for CARLI, with considering recommendations received from individuals and groups, with screening the ideas to identify which should have staff analysis, with prioritizing the ideas, and reporting final recommendations to the Board. The PSVC is made up of three CARLI Board members and three non-board members. Appointments to PSVC are made by the CARLI Executive Committee. The committee chair reports to the Board at each of its meetings. The CARLI Executive Director serves as the staff liaison to the PSVC. A product or service suggestion form is posted online for the members to suggest resources and the suggested resources are posted online for other members to look at. This avoids duplication of suggestions.

**CARLI Program Planning Committee (CPPC)** is charged with screening applications for CARLI-supported educational programs and conferences for funding, and serves as the planning committee for the annual CARLI membership meeting. The CPPC is made up of three Board members and two non-board members. Appointments are done by the CARLI Executive Committee. The committee chair reports to the Board at each of their meetings, and the CARLI Executive Director serves as the staff liaison to the Committee. A report listing all applications for program support will be given to the Board annually with an indication of status and priority.

#### 2.2.4.2.2 Temporary “ad hoc” groups

These are temporary groups like working groups, user groups, and “ad hoc” task forces which help CARLI in carrying out operational and programmatic activities of the consortium. However, they are established to carry out a specific task and then be discharged. All groups report direct to the CARLI Board of Directors through a CARLI staff liaison.

**Working Groups (WG)** focus on a broad area of service and are assumed to be ongoing. They include Collections WG, the E-Resources WG, the Preservation WG, and the Public Services WG. The rules for member appointment and terms, expected reporting frequency, coordination, and CARLI staff or Board liaison are the same for all WG as below.

- **Member appointment and terms:** WG members are appointed for a term of 1-3 years from a pool of volunteers and/or nominees in order that a rotation system can be established. Approximately a third of the committee membership is appointed each year. After the first year appointees will serve 3-year terms beginning on July 1. Each spring volunteers are solicited for the expiring terms. The CARLI Executive Committee has the final responsibility for appointing WG members. In the case of mid-term vacancies, the WG recommends candidates, and the CARLI Executive Committee appoints new committee members to fill the remaining portion of the term.
- **Expected reporting frequency:** Whenever necessary or on request the WG chair reports on committee plans and activities at the CARLI Board meetings and thereafter will report back to the group’s committee. The WG Chair will submit a written annual report of the committee’s activities to the CARLI Board for the fiscal year.
- **Coordination:** The chairs of each of these groups meet, at least twice a year, to share what their groups are discussing or will have discussed, in order to reduce duplicative efforts and identify opportunities for collaboration.
- **Staff or Board liaisons:** Each of the WG has one CARLI Office staff representative that serves as the liaison.

- **Tasks required on completion of work:** Recommendations for new or enhanced CARLI products, services and programs for each WG are sent to the PSVC or the CPPC. Each of the WG chairs forwards other documents dealing with staffing, policy, and budget issues to the CARLI Board for review and approval.

## **Types of WG**

**Collections WG (CWG)** provides advice to the CARLI Board on collection development and management within CARLI, management of the collection partnership grants, and advises the CARLI Board about policies and structures for future collection development and collection management projects.

**Electronic Resources WG (ERWG)** advises the CARLI Board and staff about possible new purchases and renewals of electronic resources; analyzes the budget allocation and makes recommendations to the PSVC; identifies cost effective opportunities through negotiations of brokered resources; develops policies and principles for the negotiation and acquisition of electronic information; and determines appropriate methods for evaluating resources and gathering member feedback. For example an E-resources vendor proposal form is provided online, and the status of selected e-resources is posted on the web.

**Preservation WG (PWG)** advises the CARLI Board and staff on the consortial aspects of preservation; works with the CARLI Executive Director to develop funding alternatives to establish a preservation program; and gives advice to other CARLI groups on other programs and services to include preservation elements in training, purchase agreements, and collection analysis.

**Public Services WG (PSWG)** advises the CARLI Board and staff on the consortial aspects of public service issues; identifies issues of critical concern and makes recommendations on how these issues may be addressed through continuing education, best practices, shared tools, etc.

## **User Groups (UG)**

UGs focus on a product operated by the consortium in a shared environment that requires collaborative decision-making; each group has a CARLI staff liaison; and they are assumed to be ongoing. UGs member appointments and terms, reporting

frequency, coordination and CARLI staff liaison terms are similar to WGs. The UGs include digital collections, and I-Share UGs.

### **Types of User Groups (UG)**

**Digital Collections UG (DCUG)** serves to coordinate the consortial aspects of CARLI's CONTENTdm system, developing best practices and seeking opportunities for consortial collaboration in support of better access to digital collections and better service to users. DCUGs may appoint necessary functional subgroups to assist the CARLI Office in planning education/training workshops, facilitating topical discussions, preparing recommendations concerning specifications, implementation, and ongoing support, and other topics of current need.

**I-Share UG (IUG)** serves to coordinate the consortium aspects of the I-Share system, developing best practices, and seeking and promoting opportunities for consortial collaboration in support of greater efficiency and better service to member libraries and users. The IUG function teams include:

- **System-related functions** broadly include acquisitions of all formats of materials; cataloging, authority control and metadata creation; maintaining adherence to pertinent standards; creating a sustainable, accessible, easy-to-use and high-performance online public access catalog; enhancing system capacity for search and retrieval of data; delivery of content; and resource sharing.
- **Specific activities of IUG** broadly include preparing recommendations concerning specification, selection, implementation, and ongoing instruction and support for tools and services related to the respective functional areas; facilitating topical discussions by means of face-to-face forums and electronic communications; and assisting the CARLI Office in planning educational and training workshops for the membership.
- **Evaluation and innovations IUGs** participate in the evaluation of broader initiatives and service innovations beyond the consortium and make recommendations for their implementation to benefit I-Share participant libraries and CARLI as a whole.
- **Training IUGs** develop continuing education events like forums and workshops for participating libraries and incorporate elements of pertinent CARLI initiatives

and additional public program recommendations received from the I-Share Teams and I-Share participant libraries.

- **Assessment** IUGs suggest mechanisms to assess consortium operations, and to identify good models, appropriate metrics, and best practices in the consortial efforts.

### **Task Forces**

The Task Force focuses on conducting a clearly defined investigation that furthers the mission or operation of the consortium, and has specific deadlines for reporting to the Board and has established sunset dates. No formal liaisons from Board or staff are required, but they may be appointed, as needed. At the time of writing this thesis, CARLI task forces included Strengthening CARLI Structure & Governance Task Force, Collections Enhancement Awards Program Evaluation Task Force, Resource Sharing Code Revision Task Force, and SFX Forum Planning Task Force.

### **Interest Groups**

Interest Groups function primarily as listservs/ communication channels with CARLI staff monitoring discussions which focus on areas of common interest, like a product or service, subject specialty, or other common interest related to CARLI's mission; Interest Groups too have no formal Board or staff liaisons.

## **2.2.5 CARLI appointments**

### **2.2.5.1 The Board of Directors**

Members of the CARLI Board of Directors are elected to three-year terms by the membership. The Board includes twelve voting members elected by the Governing Member institutions, with three members each representing the public university, community college, and private institution sectors, respectively, and three members elected at large. A thirteenth voting member of the Board is elected by the Associate Members of CARLI, to serve as their representative. There are three ex-officio non-voting members: the CARLI Executive Director, and representatives appointed by the Illinois Board of Higher Education and the Illinois State Library. A nominating committee appointed by the Board of Directors solicits nominations for the four positions each year.

### **2.2.5.2 The Committees**

Appointments to serve on the committees take into account expertise, diversity, commitment to serve, and balance in the composition of the group. Appointments to committees that report to the CARLI Board are made by the Executive Committee. Members of groups that report to other committees or groups, e.g., teams that report to a User Group are appointed by the parent body with approval of the Executive Committee. All committee members are volunteers who are either invited by e-mail through CARLI liaison staff, through the web application form or personal volunteering. Appointment to a CARLI committee is for a three-year term of service. Committee members are eligible for one, three-year reappointment upon the recommendation of the committee chair and the staff liaison, and at the discretion of the Executive Committee.

### **2.2.6 Policies, guidelines and procedures**

CARLI business is conducted with the guidance of CARLI Bylaws (CARLI, 2008, 2006), and other policies and procedures including memoranda of understanding between the CARLI Board and the Board of Trustees of the host institution (CARLI, 2005), the Illinet Interlibrary Loan Code (Illinet, 2000), (CARLI, 2005), I-Share Library Resource Sharing Code (CARLI, 2006), Digital Collections Collection Development Policy (CARLI, 2007), Guidelines for CARLI Committee Chairs and Members (CARLI, 2008), CARLI Digital Collections Agreement, E-resources Agreements, Prerequisites For Publishing A Collection In CARLI Digital Collections, and Required Metadata Fields For Collections In CARLI Digital Collections.

### **2.2.7 Staffing**

According to the CARLI organizational chart, CARLI operations are managed by the CARLI Executive Director and Assistant Vice President for Planning and Budgeting with the support of the Director of Administration and Planning, an Administrative Assistant and six CARLI service units. In total there are 28 staff (Dec. 2009).

#### **2.2.7.1 CARLI Service Units**

There are six CARLI service units each with a head called a director of that unit and other officers that support the unit. These include

- Business & Finance Services: Chief Financial Officer, Secretary, Administrative Assistant, Delivery Program Administrator/Accountant, and Account Technician I
- Communications: Assistant Director, CARLI Communications, Webmaster
- Collection Services: Director, and CARLI Collections Services
- E-Resources: Director, CARLI Electronic Resources, and Program Coordinator
- Systems Services: Associate Director CARLI System Services, two Senior Research Programmer, two Application Support Specialist, Research Programmer, Database Specialist, and Application Support Specialist, and
- User Services: Director CARLI User Services, seven Library Systems Coordinators, and Associate Director CARLI Date Services.

#### **2.2.7.2 Staff and Membership Communication**

CARLI maintains effective methods of communicating to its members through CARLI Blog, Wiki, twitter, online Newsletter, Webpage, e-mail, telephone, and minutes and reports of CARLI Board of Directors, committees, user groups and task forces, and staff. All these services are available online for CARLI members to choose from. CARLI also maintains both a staff directory and telephone directory available online.

#### **2.2.8 Services and products**

##### **2.2.8.1 I-Share**

I-Share is an integrated library system that now serves as the online catalog for 76 CARLI member libraries. I-Share runs on the “Voyager” software from The ExLibris Group and provides participating libraries with an online catalog of their own collection as well as a merged, union catalog of the holdings of all I-Share libraries. I-Share also supports library collection management functions including circulation, cataloging, acquisitions, serials control, course reserves, and reporting.

One of the key features of I-Share is its support for resource sharing among participating libraries. I-Share member libraries agree to share their resources with other I-Share libraries. Items not available at the local library can be located and borrowed from other I-Share libraries. Requested items are sent from the lending library to the borrower's library. Additionally, I-Share's reciprocal borrowing policy allows people who

are registered borrowers at an I-Share library to visit any other I-Share library and borrow items onsite.

I-Share employs the Voyager components “Universal Catalog” and “Universal Borrowing” to provide library users the ability to locate and request materials from any I-Share library, and to provide librarians with a shared source of cataloging data.

#### **2.2.8.2 VuFind**

VuFind is an open source system; a library resource portal designed and developed for libraries by libraries. The goal of VuFind is to enable library users to search and browse through all of the library's resources. The VuFind features include all OPAC features: Catalog Records, Locally Cached Journals, Digital Library Items, Institutional Repository, Institutional Bibliography, Other Library Collections and Resources.

#### **2.2.8.3 CONTENTdm**

CONTENTdm is a software package used by CARLI to store and provide access to digital versions of primary source materials. CONTENTdm provides a means of making a wide variety of media types including images, journals, books, audio and video files, maps, and newspapers accessible for search and display on a typical personal computer with an Internet connection and a web browser. CARLI offers different options for use of CONTENTdm for its membership. If you simply want to view materials purchased by the CARLI consortium or view collections created by other CARLI libraries, you can search the CARLI Digital Collections on the CARLI CONTENTdm server; CARLI Governing Member libraries that want to contribute content but have CARLI host their content on a CARLI-managed server, can opt to add collections to the CARLI Digital Collections; CARLI Associate or Governing Member libraries that want to manage their own digital library server can opt to purchase the software under the pricing terms of the agreement between CARLI and OCLC and install CONTENTdm on their own server. CARLI maintains the server and software, stores the content, and backs up the data. CARLI staffs conduct basic training sessions that introduce CONTENTdm to participating libraries.

#### **2.2.8.4 Illinois Library Delivery Service (ILDS)**

The ILDS is a courier service that transports library materials between participating Illinois academic and research libraries to support interlibrary resource sharing in the state of Illinois. ILDS serves CARLI Governing and Associate members. ILDS is managed by CARLI, in cooperation with the Illinois State Library. ILDS libraries receive communications about ILDS from CARLI and any service questions are sent to CARLI through an e-mail: support@carli.illinois.edu. Trucking of ILDS materials is done by a commercial delivery service firm. Funding from the Illinois State Library covers the cost of providing one delivery location to each CARLI Governing and Associate member and to the regional library systems' headquarters, and a portion of the cost of the ILDS reusable delivery bags. Libraries will need to pay for office supplies (their computer, printer, paper, and zip ties for bags) needed to support their use of ILDS. Every ILDS location receives delivery and pickup service Monday through Friday, except for announced holidays. The ILDS vehicle visits participating libraries every day; libraries do not call for pickup. ILDS delivery locations can inform the ILDS program coordinator about planned closure dates when delivery service is not required. Emergency closures may also be reported to the ILDS program coordinator as the situation permits. The overall turnaround time for an interlibrary loan transaction is typically longer than 24 hours as it takes libraries time to retrieve and process the material, and for the material to reach the patron. ILDS is intended for sending library-owned materials between libraries to fulfill interlibrary resource sharing requests including books and journals, photocopies in envelopes, recordings, maps, and audio-visual materials. It is also possible to redirect surplus ILDS bags or to receive additional ILDS bags through the ILDS system. ILDS is not used to send correspondence including library notices like overdue notices, office supplies, furniture, computer equipment, perishables, correspondence between library staff, or inter-campus mail between branches of an institution.

#### **2.2.8.5 Electronic Resources program**

The foundation for the CARLI Electronic Resources program is provided through the CARLI Electronic Resources Licensing Principles which guide CARLI's efforts in negotiating with publishers and vendors for a wide variety of electronic content on

behalf of the membership. CARLI E-Resources program goals include reducing e-resource costs for members, increasing the breadth and coverage of collections, and purchasing materials of lasting value for members. All CARLI members are eligible to participate in the database brokering program but may incur additional service fees depending upon their membership level. Governing and Associate members come with full participation with no service fees or restrictions; Basic members contribute a service fee of \$50 per database selected; and Non-members are ineligible to participate in the database brokering program.

#### **2.2.8.6 Collection management**

CARLI initiates library cooperative collection development programs to meet the diverse information needs of faculty, students, and other library users in Illinois in order to make the best use of its resources. These include CARLI Book Digitization Initiative started for optimal access to and preservation of unique materials in Illinois. Last Copy Pilot Project allows any CARLI library that seeks to withdraw a "last copy" to donate it to a library that will retain the title for resource sharing in Illinois. The Collections Enhancement Awards Program and the CARLI/OCA Book Digitization Initiative expand collections and access to information resources throughout the state of Illinois. These provide guidance and funding for cooperative collection development; and preservation where CARLI develops resources and training for CARLI member libraries to provide guidance on both curatorial and preservation matters for collections.

#### **2.2.8.7 SFX**

SFX is a link resolver that sits between a "source," where a user begins the search process, and a "target," where the user goes next. CARLI provides support for the software acquisition, installation, and training of library staff who train their users later. The "source" might be an abstracting and indexing database, an A-Z list of journal titles, an OPAC, or a footnote in an electronic full text article. If the source system can build a standards-compliant OpenURL containing metadata (typically bibliographic citation information) about the "object" the user is interested in, then a link resolver like SFX can generate a list (or menu) of relevant targets. Targets might be the electronic full text of the cited article (perhaps available from a provider other than the source where the user found the citation), or a document delivery request form, or a web-based

service that will automatically reformat a bibliographic citation according to a specified style manual, suitable for pasting into the user's bibliography.

#### **2.2.8.8 WebFeat**

WebFeat is a federated search engine that can search any or all of a library's databases simultaneously with a single interface. WebFeat can search any database, including licensed databases, free databases, catalogs, Z39.50, Telnet, or proprietary databases.

#### **2.2.8.9 Program Awards**

There are three program awards within CARLI. These include

1. Access & Analysis Awards which enhance bibliographic access to current collections or analyze current collection strengths and weaknesses
2. The Collections Enhancement Awards Program and the CARLI/OCA Book Digitization Initiative which works to expand collections and access to information resources throughout the state of Illinois, providing guidance and funding for cooperative collection development; and
3. Collaborative Digitization / Collection Partnerships for collaborative digitization projects.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the methods that have been used in the collection and analysis of data to answer the primary and secondary research questions of the study. It explains the research design, sampling techniques and data collection methods used; and describes how data collected from the research has been analyzed. Both qualitative and quantitative research methods have been used in carrying out this research. However, the overall approach will be qualitative because qualitative methods focus on the experiences of people involved, and attempt to understand the reasons behind certain behavior description (Taole, 2008). The evaluation has been carried out using three systems of data collection techniques, literature review, interviews and questionnaires. The literature review and interviews are used to collect qualitative data while questionnaires are used to collect both qualitative and quantitative data; thus the two will complement each other.

#### **3.2 Literature search**

An extensive literature review and analysis on library collaborations in Africa and Uganda, as well as a detailed summary of the literature concerning CARLI, has been presented in chapter 2. The principal sources of this information include: the official web pages of universities and organizations under analysis; published literature in textbooks and journals both electronic and print; and reports and minutes of the involved organizations. However, some of the review of library collaborations in Africa and Uganda is derived from my own experience as an outreach librarian at Makerere University Library.

#### **3.3 Research design**

According to Yin (1994: 19) as stated in Taole 2008, a research design is a plan that guides the investigator in the process of collecting, analyzing and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation (Taole, 2008). The research design covers sampling techniques as well as the data collection methods that are used in this research. The areas of interest include scope, rationale, and history of

CARLI; types of information resources shared among CARLI; policies and procedures in place; organizational structure of CARLI; leadership, role and responsibility of CARLI; membership types and scale of institutions; structure of both public and private academic, community and research institutions; expectation of CARLI and its membership in the consortium; source of funding to CARLI; relationship of CARLI to government and UIUC as a coordinating institution; challenges faced by CARLI in carrying out its activities; and membership and CARLI staff perception of funding compared to other factors as a source of CARLI's success. The list was modified to include emerging issues from the survey feedback which were investigated further during the interview process.

### **3.4 Target groups**

#### **3.4.1 Introduction**

The main focus of this study was CARLI staff and Directors of CARLI member institutions that carry out the day-to-day CARLI activities. The chosen criteria used in selecting the broader category of respondents was aimed at critically identifying such factors that have kept CARLI vibrant, trusted by its membership and achieving all its successes, and what has been the contribution of its membership to CARLI. The following measures were used in choosing the respondents for the survey and interview.

1. The library/ institutional type and enrollment
2. CARLI membership category
3. Directors of the libraries
4. CARLI staff

#### **3.4.2 Library/ institutional type**

There are five library types which were considered in this research, including public university libraries, private university libraries, community college libraries, private college libraries, and research libraries.

According to Illinois Board of Higher Education (IBHE) (Sept. 2009), there are 9 public universities on 12 campuses, 48 community colleges, 97 independent not-for-profit colleges and universities, and 35 independent for-profit institutions. This gives a total of 189 institutions of higher learning in the State of Illinois. Generally the enrollment

in public universities, a few independent private universities, and community colleges is far greater than the enrollment in independent private colleges.

Public institutions are expected to participate in CARLI more than private institutions; and the size of each institution determines the type of service from which it will benefit. For example public university libraries offer a wide range of subjects and have big enrollment and therefore they subscribe to more CARLI services compared to a small private college.

### **3.4.3 CARLI membership categories**

CARLI has 153 members in three membership categories: 107 are governing, 30 are associate, and 16 are basic in the fall of 2009. CARLI member libraries serve over 98% of Illinois higher education students, faculty and staff. The research targeted all 3 membership categories because there are different policies and procedures, and benefits that each member category is entitled to.

### **3.4.4 Library directors**

Directors of CARLI member libraries were chosen as respondents to the survey because according to the CARLI Service Evaluation Survey Final Report (May, 2007), directors or other administrators are more likely to be aware of CARLI services than those in other library positions. The survey was e-mailed directly to the directors who filled it out and returned it back to the researcher.

### **3.4.5 CARLI staff**

CARLI has six service units with 28 fulltime staff. The Executive director and the three directors of the six service units were interviewed to provide in-depth details of the functions and activities carried out in a consortium. The service units chosen for interviews were: business and finance, electronic resources, and user services.

I am grateful to my respondents for they were able to provide the required data for this research.

## **3.5 Sampling techniques**

Given the diversity in membership categories, historical consortium membership background, institutional subject specialization and interests of the participating libraries, and the geographical distance between the institutions, each has unique expectations and benefits from CARLI. Tapping into such diversity helped the

researcher to take care of all the divergent views of the member libraries. The researcher interviewed four CARLI executive members, and received questionnaire feedback from 67 (44%) of the 153 directors of member libraries including 60 (56%) of 107 Governing, 4 (13%) of 30 Associate, and 3 (18%) of 16 Basic members.

### **3.6 Data collection methods**

I used a multi-strategy approach called ‘triangulation’ to collect data because it allows the use of more than one method or source to collect data in a study of a social phenomenon so that findings may be cross-checked (Taole, 2008). The methods which have been applied in this study are literature review, questionnaires and interviews.

#### **3.6.1 Document analysis**

The research process started with and was guided by an extensive literature review and analysis on library collaboration in Africa and Uganda in particular, CARLI, CUUL and other stakeholders in this study. The process of collecting and analyzing the literature started in April 2009. I thoroughly analyzed the documents generated by the organizations in question which included websites, reports and minutes of meetings, newsletters, and brochures.

The CARLI website, newsletter, previous studies and reports provided a basis for understanding the history of CARLI, its establishment and the overall performance of the consortium. The availability of vital information about CARLI on their website facilitated the smooth progress of this research. The available CARLI literature was used in the development of the questionnaire that was used to collect the data for this study.

#### **3.6.2 Questionnaires**

Using the available documentation on CARLI, CARLI staff, and guidance from my thesis advisor, in September 2009, eleven questions were developed on which the respondents were asked to provide feedback. Out of the 11 questions 9 were multi-choice, and 2 were open-ended. The multi-choice questions allowed a wide coverage of topics, and saved time for the respondents since each questionnaire was estimated to take less than 10 minutes of their time; while the open-ended questions helped to gather more divergent views that were missed in the 9 multi-choice questions. To increase ease of answering the multi-choice questions, the questionnaire was designed

in a form format. To avoid missing data, respondents losing interest, and low response rate, the questions were short, clear and unambiguous. A brief explanation of the aims and objectives of the research, including the researcher's biography, was provided and preceded the questions.

In November, 2009, after the approval of the research instruments by the Institutional Review Board (IRB) of the University of Illinois at Urbana-Champaign, the questionnaire was pre-tested to clarify any anomalies that may cause misrepresentation among the respondents. Pre-testing was done with CARLI staff and friends. This helped to identify questions that would make respondents uncomfortable, questions that might be misunderstood, and to determine the flow of the questions. On January 20<sup>th</sup>, 2010 the questionnaire as well as the survey consent form was sent out to the CARLI member library directors by e-mail. Subsequent reminders were sent on February 9<sup>th</sup> and 16<sup>th</sup> respectively. The questionnaire is attached as Appendix B.

### **3.6.3 Interview**

To provide more insight and understanding of how CARLI works, on 25<sup>th</sup> February, 2010 at the CARLI office in Champaign, a formal interview was conducted between the researcher and CARLI staff. A formal interview guide was designed with guidance from my thesis advisor, which was presented and accepted by the IRB office on November 25, 2009. (See Appendices C and D) Although the interview followed a formal guide, the respondents were given the opportunity to express their views independently and were probed further through questions that arose from the discussion. For their protection and privacy, an interview consent form was signed that outlined the usage of the data collected. The interviews were audio recorded and notes were taken to enable further analysis and interpretation without losing details.

### **3.7 Issues relating to data quality**

As mentioned by Taole (2008), reliability and validity are two main criteria for determining data quality where validity presumes reliability, that is, if a measure is not reliable, it cannot be valid.

### **3.7.1 Reliability**

In order to maintain reliability in the study, the researcher administered the same type of questionnaire to all the subjects, that is, all CARLI members who participated in this research were given the same type of questions with the same type of wording thus carrying the same meaning to all. The assumption here is that all the respondents will have the same interpretation of the questions; however, the researcher made sure that all the questions were constructed in the English language so as to be easily read and understood by all subjects.

### **3.7.2 Validity**

As mentioned by Taole (2008) and Gray (2004), an instrument is valid if it measures what it was intended to measure and covers all research issues both in terms of content and detail. The research instruments have been designed to obtain both validity and reliability, using the following steps:

- The researcher made an extensive analysis of the literature and research that has been published by and on both CARLI, African and Ugandan libraries in relation to consortia, and CUUL in order to get more details of how much emphasis was required to address the issues in this research
- The use of both interviews and questionnaires along with the already existing CARLI reports and research by and about consortia in both developed and developing countries provided greater confidence in the findings by combining the strength of different data collection methods and sources.
- The research instruments were pre-tested using a sample of respondents to ensure that they cover the research questions in terms of content and details (Taole, 2008)
- The questionnaire and interview were concise and clear to increase the response rate, and to avoid ambiguity and waste of respondents' time.
- Awareness about the research and its goals were made to the respondents through the following: consecutive planning meetings with CARLI staff; a brief presentation to library directors of CARLI membership during their member meeting on October 30<sup>th</sup>, 2009; and CARLI newsletter. In addition the consent form contained a brief note on the aims of the research, and rights and privacy of the respondents. This positively

influenced both the relevance and usefulness of the information collected. (See Appendix A)

- Neither personal nor institutional data was collected concerning the respondents and their respective institutions and this encouraged freedom of expression and allowed sharing both positive and negative experiences in their work with CARLI.
- A selected sample of CARLI staff was interviewed to gain more information, which may not have been obtained from the questionnaire and literature alone. Interviewees helped probe further and gave more specific answers and were asked to elaborate on issues not otherwise discussed.

### **3.8 Data analysis and interpretation**

Data analysis involves a process of thorough examination and interpretation; a process of resolving data into its constituent components, to reveal its characteristic elements and structure. By analyzing and interpreting data, I made sense of the information collected. This study collected both qualitative and quantitative data, and therefore, data was analyzed according to its type.

My data collection and analysis was done sequentially with preliminary data analyzed from reports and committee minutes which helped in informing future data collection. The interview and questionnaire transcripts were central in my data analysis. Data analysis required reading and re-reading; and listening and re-listening to highlight and label important, descriptive and informative issues that emerged for sorting and categorization. In the data I looked at issues that have led to the success of CARLI, issues that relate to Uganda's setting and how challenges have been handled. The ultimate goal was to identify factors that have led to the success of CARLI and how such factors can be applied to Uganda's setting.

### **3.9 Protection of the subjects**

In keeping with the university regulations, I submitted and received approval from UIUC, IRB office to carry out this research as included in Appendix E.

## CHAPTER 4 DATA ANALYSIS

### 4.1 Introduction

This chapter presents the data collected from the respondents, both CARLI staff, and directors of CARLI member libraries, including public and private universities, community and private colleges, and research libraries. The data are grouped by library type and membership category, that is, Governing, Associate and Basic memberships. The questionnaire and interview schedules are attached as Appendix B and D.

### 4.2 Q1. The questionnaire response rate

The overall questionnaire response rate was 46%, (71/153), of which 44% (67/153) were valid responses and 3% (4/153) were regrets.

**Table 1:** Questionnaires received per member library type and membership category

Type of library	CARLI membership	Membership categories	No. of Responses		Response rate (%)
Public University	16	Governing	10	10	63
		Associate	0		
		Basic	0		
Private University	43	Governing	17	19	44
		Associate	1		
		Basic	1		
Community College	43	Governing	18	19	44
		Associate	1		
		Basic	0		
Private College	42	Governing	10	14	33
		Associate	2		
		Basic	2		
Research Library	9	Governing	5	5	56
		Associate			
		Basic	0		
<b>Total</b>	<b>153</b>		<b>67</b>		<b>44</b>

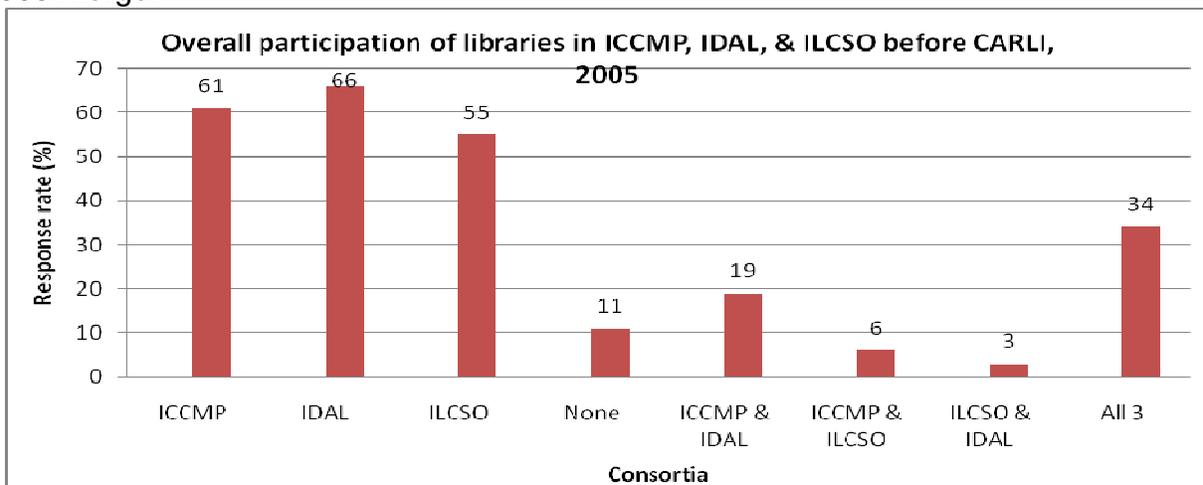
The response rate for public universities and research libraries was 63% (10/16) and 56% (5/9) respectively; private universities 44% (19/43), community colleges 44% (19/43), and private colleges 33% (14/42). A 56% (60/107) response rate was obtained for governing membership category, 13% (4/30) for the associate category, and 18% (3/16) for the basic membership category.

#### 4.2.1 Q2. Response rate by library position

Eighty-one percent of the respondents were library directors while 19% were other library administrators. As noted in the 2007 CARLI Service Evaluation, library directors are more likely aware of CARLI activities, having served on CARLI committees, having used CARLI services and/or worked as the communication channels between CARLI office staff and their respective member libraries more than other library staff. Thus they provided significant insights and informed responses to the survey (CARLI Service Evaluation Survey Final Report, May 2007).

#### 4.3 Q3: Consortium to which libraries belonged before joining CARLI in July 2005

**Graph 1:** Overall participation by libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger



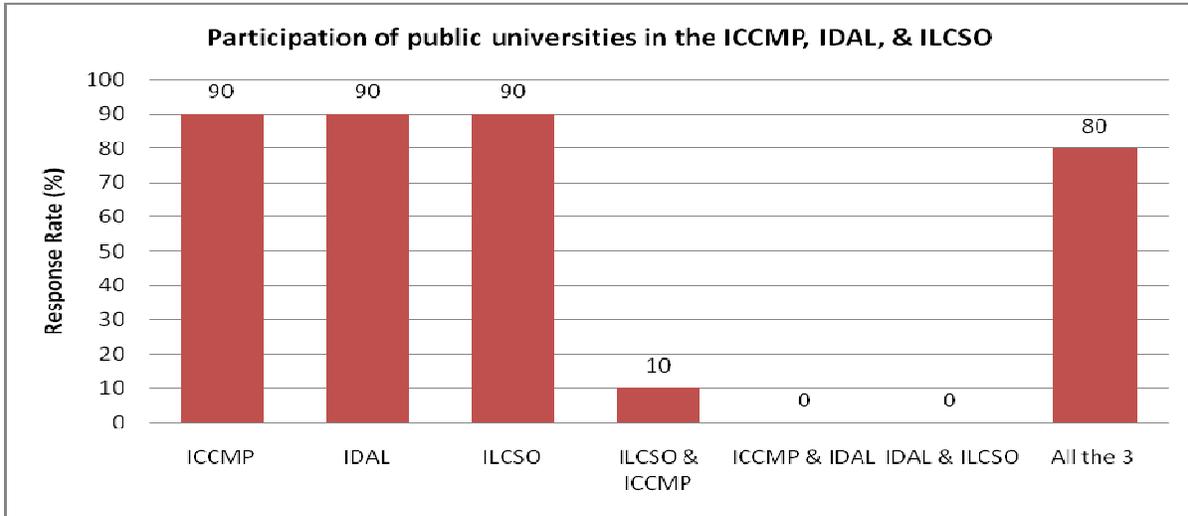
**Table 2:** Key 1

<b>ICCMP =</b>	Illinois Cooperative Collection Management Program
<b>IDAL =</b>	Illinois Digital Academic Library
<b>ILCSO =</b>	Illinois Library Computer Systems Organization

Prior to the formation of CARLI in July, 2005, libraries subscribed separately to ICCMP, IDAL, and ILCSO. Respondents were asked to which consortium they belonged. Ninety percent of the respondents belonged to at least one consortium while 11% belonged to none; 34% belonged to all the three (ICCMP, IDAL, & ILCSO) consortia. Of the respondents IDAL had 66%, ICCMP had 61%, and ILSCO had 55% member libraries.

### 4.3.1 Participation by public universities libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger

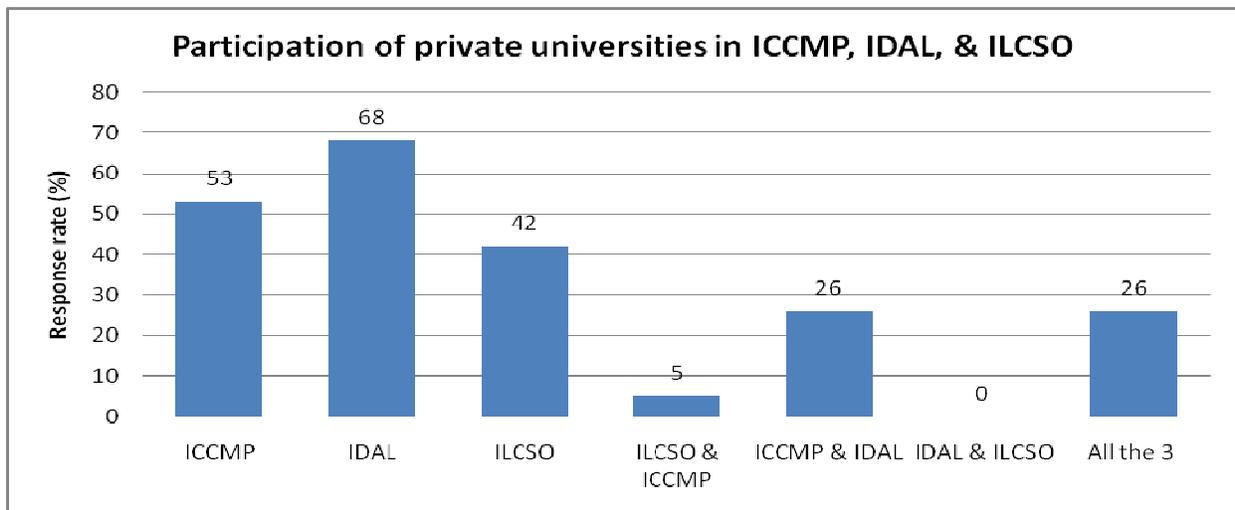
**Graph 2:** Participation by public universities in the ICCMP, IDAL, & ILCSO before CARLI 2005 merger



Ninety percent of the public universities participated in at least one of the consortium, while 80% of the respondents participated in all 3 consortia.

### 4.3.2 Participation by private universities libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger

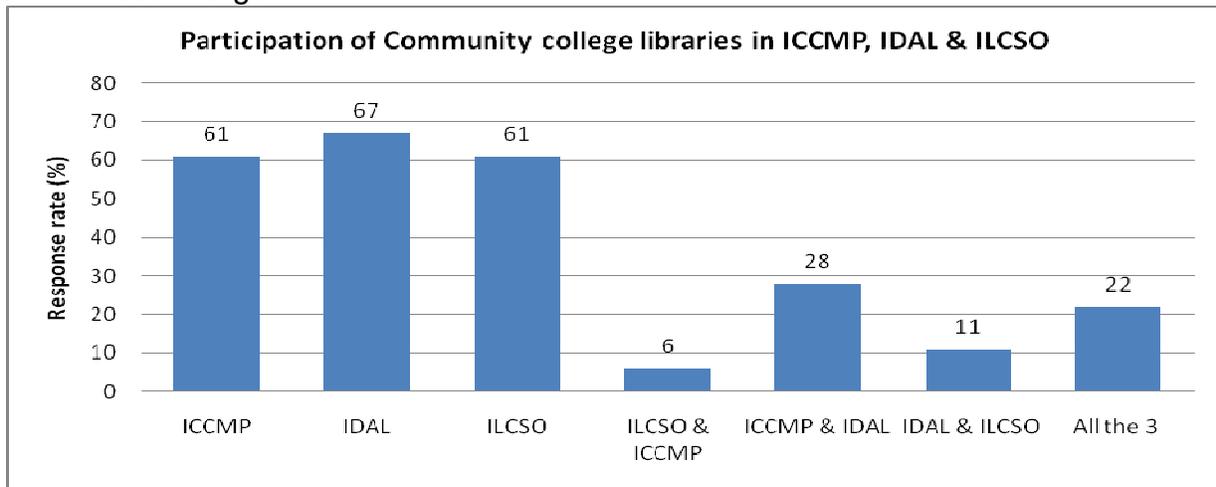
**Graph 3:** Participation by private universities in the ICCMP, IDAL, & ILCSO before CARLI 2005 merger



Important differences exist between public and private universities' participation in the consortia, for example, private universities are more likely to participate in only two of the three consortia and not all 3. Private universities show a 26% participation in all the three consortia compared to 80% for public universities.

#### 4.3.3 Participation by Community college libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger

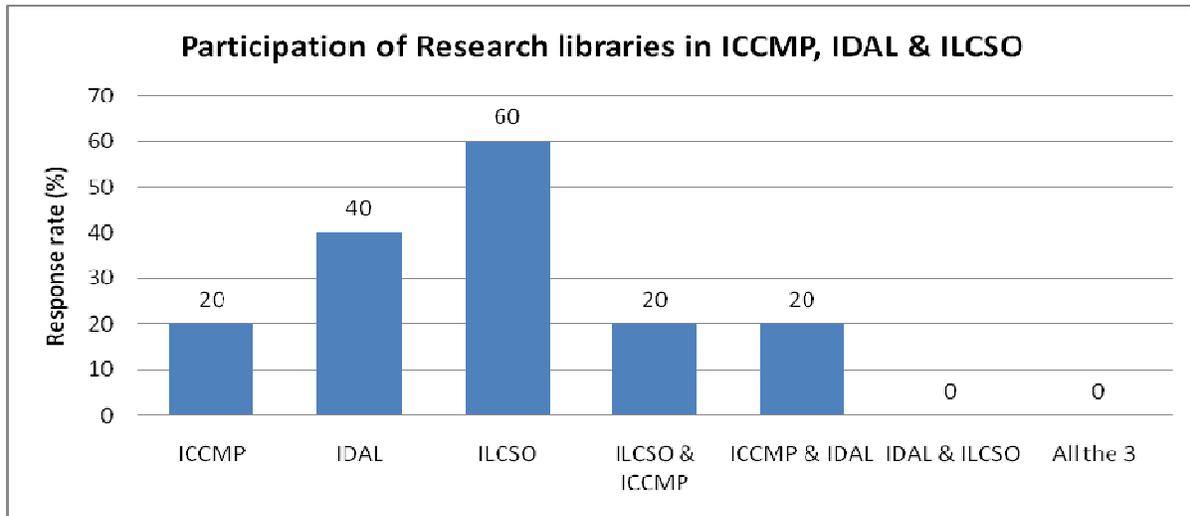
**Graph 4:** Participation by Community college libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger



Community colleges, like public and private universities do follow the same trend of participating significantly in each of the individual consortium as opposed to 2 or 3 consortia at the same time.

#### 4.3.4 Participation by Research libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger

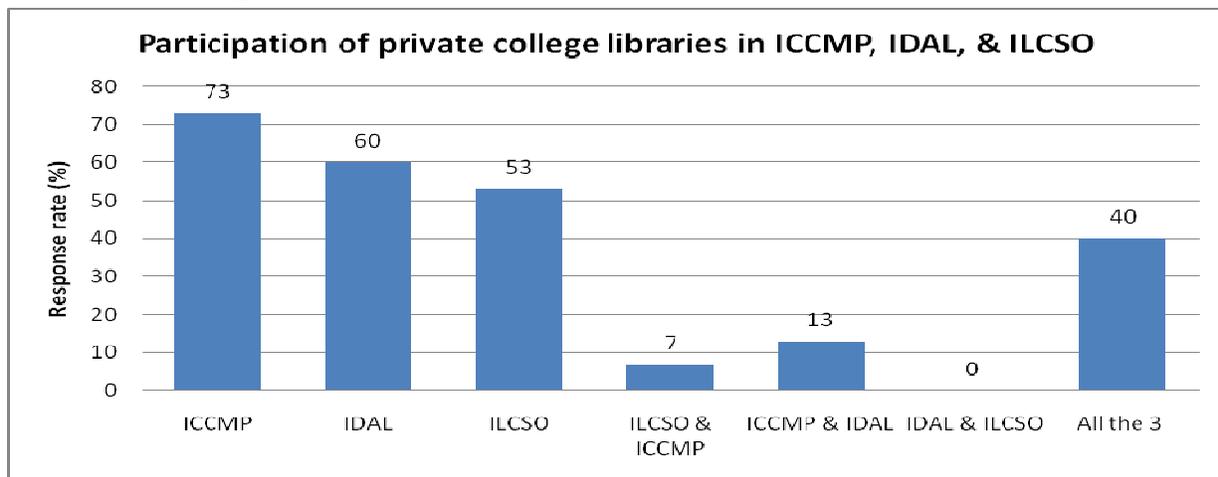
**Graph 5:** Participation by Research libraries in ICCMP, IDAL, & ILCSO before CARLI 2005 merger



Unlike other libraries, research libraries subscribe more to ILCSO (60%) and IDAL (40%) and this trend is different from all the other libraries.

#### 4.3.5 Participation by private college libraries in ICCMP, IDAL & ILCSO before CARLI 2005 merger

**Graph 6:** Participation by private college libraries in ICCMP, IDAL & ILCSO before CARLI 2005 merger



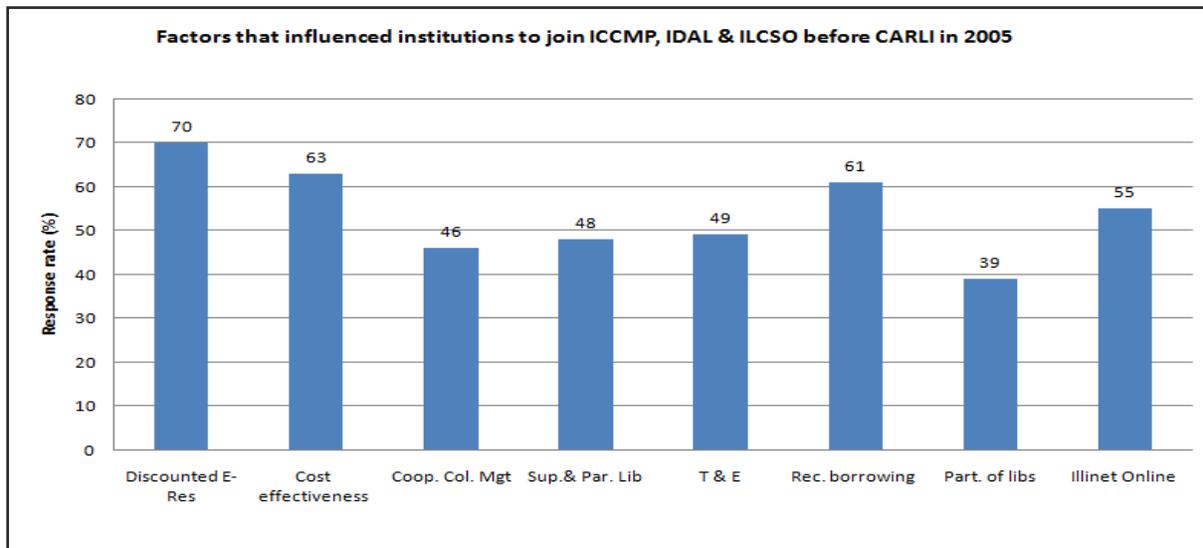
#### 4.4 Q4 Factors that influenced libraries to join either or both ICCMP, IDAL, & ILCSO before CARLI 2005 merger

Table 3: Key 2

<b>Discounted E-Res =</b>	Discounted/ subsidized electronic resources and brokering
<b>Cost effectiveness =</b>	Cost effectiveness
<b>Coop. Col. Mgt =</b>	Cooperative collection management
<b>Sup.&amp; Par. Lib =</b>	Support and participation from member Libraries
<b>T &amp; E =</b>	Training and continuing education
<b>Rec. borrowing =</b>	Reciprocal borrowing
<b>Part. of libs =</b>	Participation of libraries
<b>Illinet Online =</b>	Shared integrated library system (Illinet Online)

#### 4.4.1 Factors that influenced libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

Graph 7: Factors that influenced libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger



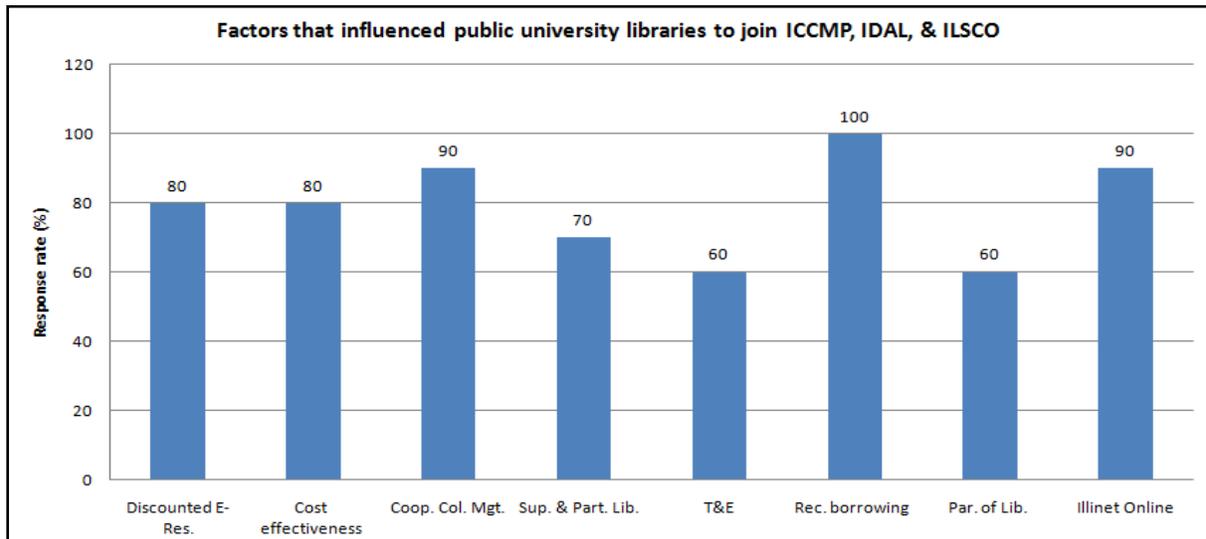
The respondents were asked what mostly influenced them to join either or all the consortia (ICCM, IDAL, and ILCSO); 70% were for discounted/ subsidized electronic resources and brokering, 63% was cost effectiveness, 61% was reciprocal borrowing and 55% was shared integrated library system as the most important reasons respectively. Much as Illinet Online supports reciprocal borrowing, it's underrated,

meaning that libraries value the service as opposed to how the service is provided. It's important to note that the participation of other libraries (39%) is not an important factor in influencing them to join a particular consortium.

#### 4.4.2 Factors that influenced public university libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

In public university libraries, the factors that contributed significantly towards joining the three consortia were: reciprocal borrowing (100%), for both Illinet Online Integrated Library System and cooperative collection management (90%). Cooperative collection management is an important factor for public university libraries (90%), compared to all libraries (46%).

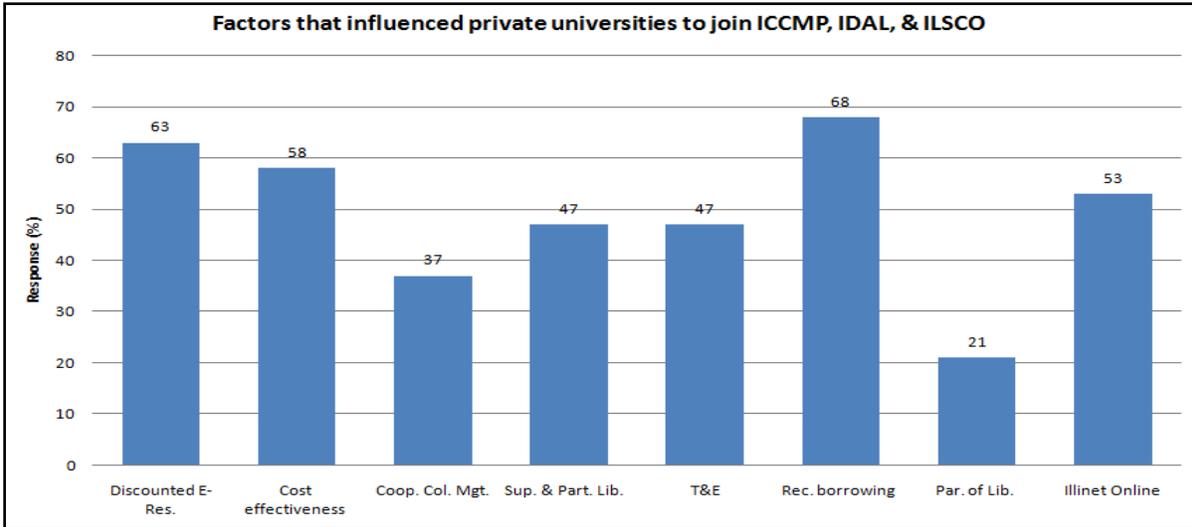
**Graph 8:** Factors that influenced public university libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger



#### 4.4.3 Factors that influenced private university libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

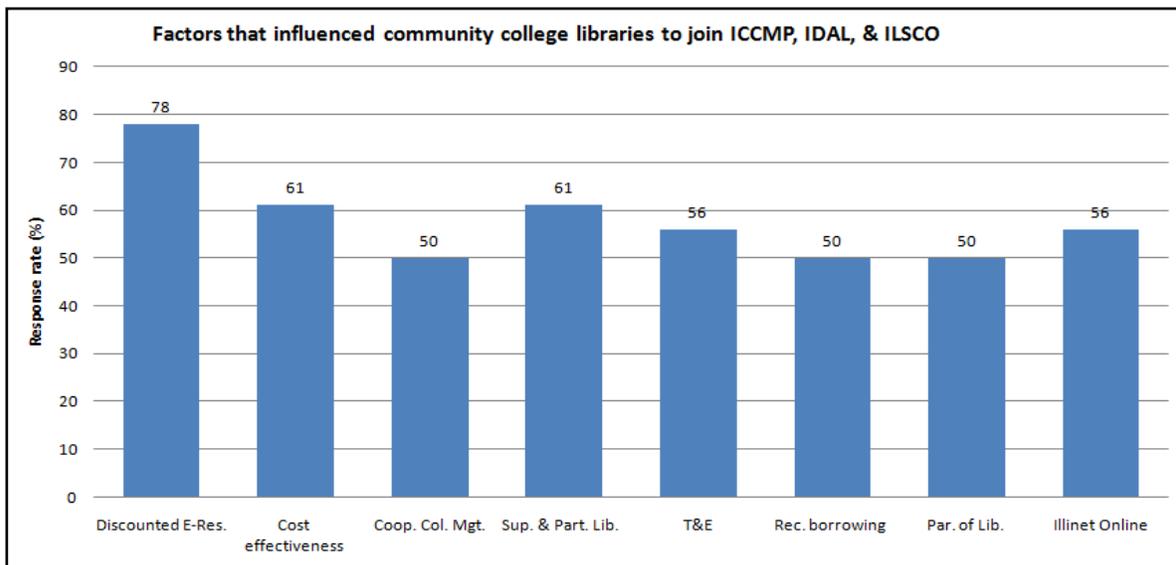
For private universities, reciprocal borrowing was an important influence in deciding to join the consortia (68%). Other factors, such as discounted/ subsidized electronic resources and brokering (63%), cost effectiveness (58%), and Illinet Online, the shared integrated library system (53%) were of less importance. Unlike public university libraries where cooperative collection management was very important (90%), for private university libraries cooperative collection management was of much less importance (37%).

**Graph 9:** Factors that influenced private universities to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger



#### 4.4.4 Factors that influenced community college libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

**Graph 10:** Factors that influenced community college libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

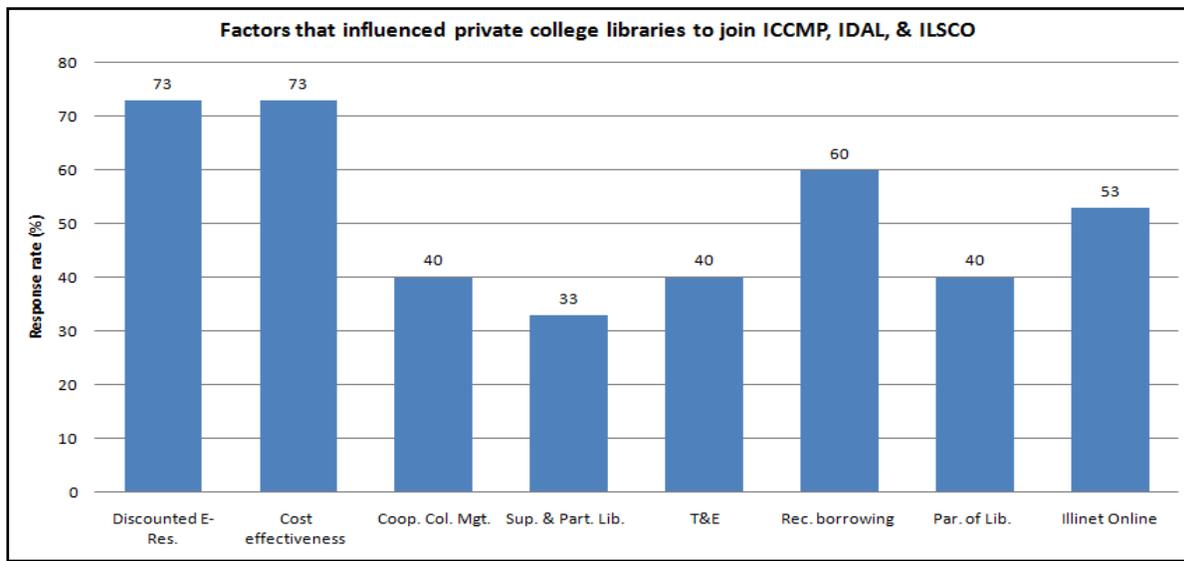


On average, all factors influenced community college libraries to join at least one of the consortia. Seventy-eight percent of the respondents were influenced by discounted/ subsidized electronic resources and brokering, and 61% influenced by both

cost effectiveness, and support and participation from other libraries. Similar trends are observed with both public university and community college libraries.

#### 4.4.5 Factors that influenced private college libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

**Graph 11:** Factors that influenced private college libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

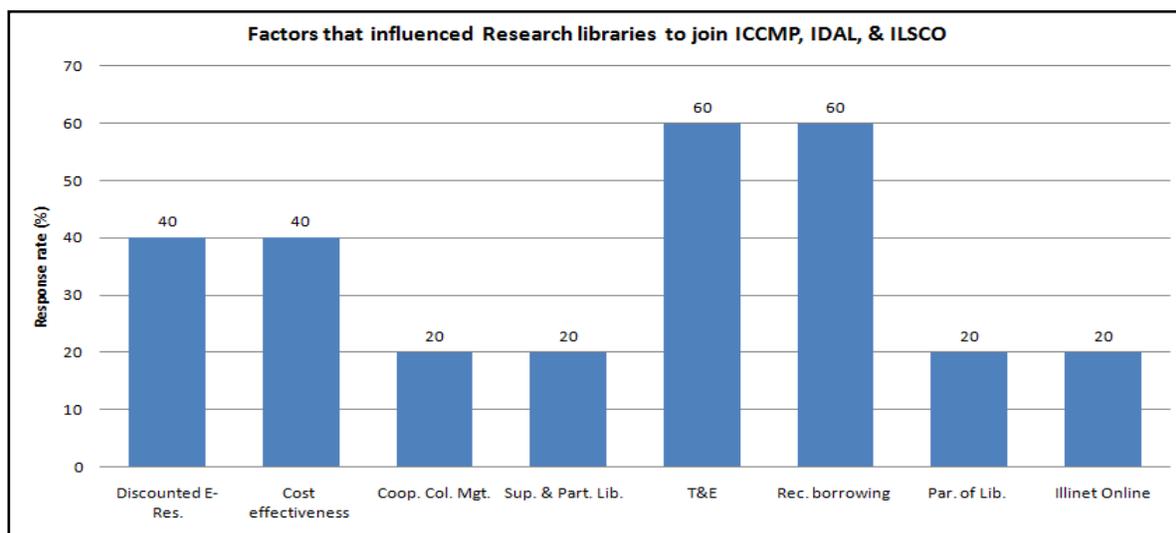


For private college libraries discounted/ subsidized electronic resources and brokering (73%), cost effectiveness (73%), reciprocal borrowing (60%) and a shared integrated library system (Illinet Online) (53%) are the most influencing factors; however other factors are relatively important. Unlike community college libraries where cooperative collection management was a strong factor (50%), 40% of private college libraries considered cooperative collection management an influencing factor.

#### 4.4.6 Factors that influenced research libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger

Reciprocal borrowing (60%), and training and continuing education (60%) were the most influential factors for research libraries. Discounted/subsidized electronic resources and brokering (40%) and cost effectiveness (40%) were less influential. Even though Illinet Online facilitates reciprocal borrowing it was not identified as a major factor (20%).

**Graph 12:** Factors that influenced research libraries to join ICCMP, IDAL, & ILCSO before CARLI 2005 merger



Different library types participate differently in any consortia. Their participation depends on individual library needs in relation to the services offered by each consortium. It's observed that most libraries participated in a single consortium as opposed to more than one consortium at a single time. In the following section we will find out if the merger of the three consortia (ICCM, IDAL, & ILSCO) to form CARLI in July 2005 created a difference in the participation of the libraries.

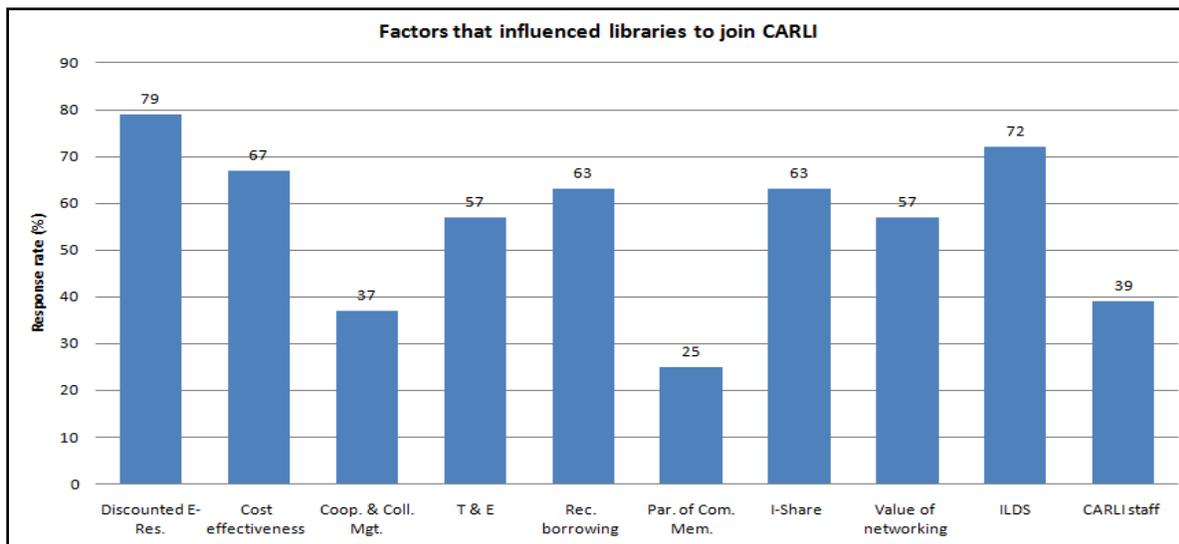
#### 4.5 Q5. Factors that influenced libraries to join CARLI in July, 2005 after the merger of ICCMP, IDAL, & ILCSO to form one single consortium

**Table 4:** Key 3

<b>Discounted E-Res.</b> = Discounted/ subsidized electronic resources and brokering
<b>Cost effectiveness</b> = Cost effectiveness
<b>Coop. &amp; Coll. Mgt.</b> = Cooperative collection management
<b>T &amp; E</b> = Training and continuing education
<b>Rec. borrowing</b> = Reciprocal borrowing
<b>Par. Of Com. Mem.</b> = Participation of committee members
<b>I-Share</b> = I-Share Integrated Library System
<b>Value of networking</b> = Value of networking with members at CARLI meetings/ conferences
<b>ILDS</b> = Ability to obtain quick delivery of physical materials from member libraries (ILDS)
<b>CARLI staff</b> = CARLI staff

#### 4.5.1 Factors that influenced libraries to join CARLI

**Graph 13:** Factors that influenced libraries to join CARLI

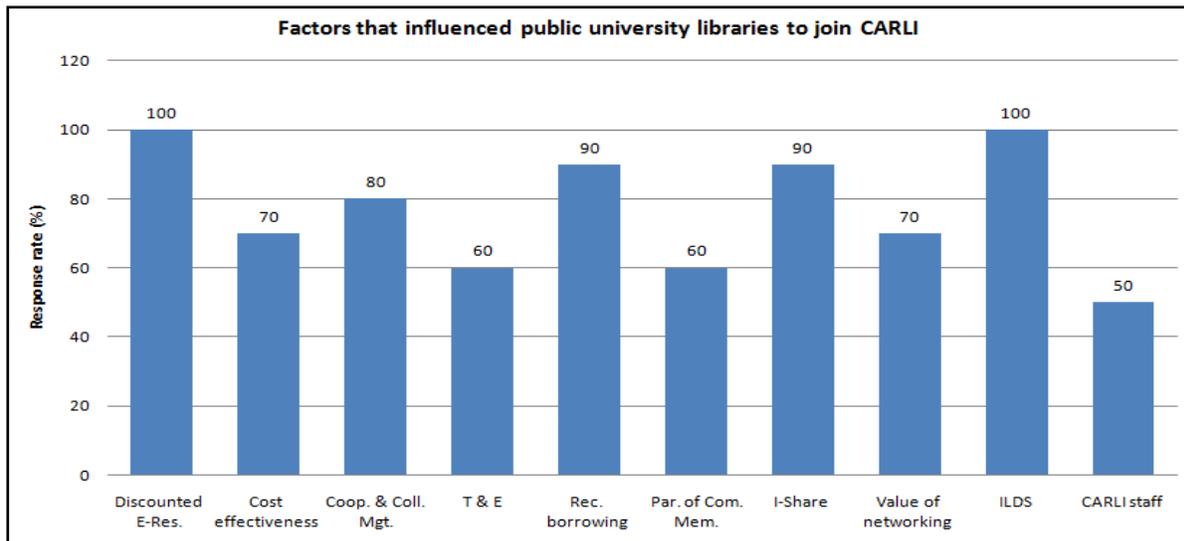


When respondents were asked why they joined CARLI in July 2005 after the merger of the three consortia, discounted/ subsidized electronic resources and brokering (79%), ability to obtain quick delivery of physical materials from member libraries (ILDS) (72%), cost effectiveness (67%), reciprocal borrowing (63%), I-Share Integrated Library System 63%, training and continuing education (57%), and value of networking with other members at CARLI meetings/ conferences (57%) were identified as the most important factors. CARLI staff (39%) also played a role in influencing libraries to join.

#### 4.5.2 Factors that influenced public university libraries to join CARLI

For public university libraries, generally all the factors contributed towards their joining of CARLI; discounted/ subsidized electronic resources and brokering 100%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 100%, I-Share Integrated Library System 90%, training and continuing education 60%, and reciprocal borrowing 90% played a significant role. CARLI staff (50%) was also a major factor.

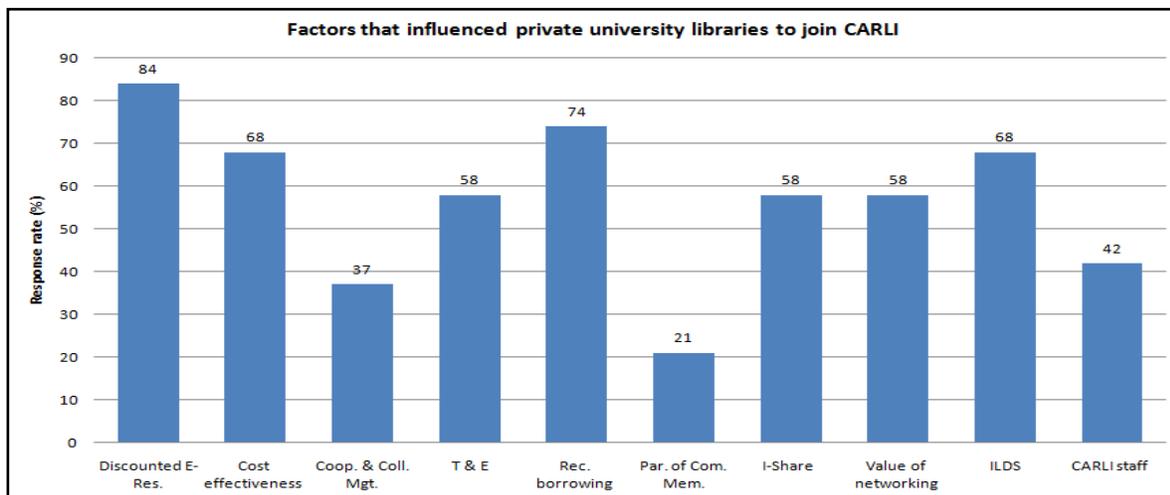
**Graph 14:** Factors that influenced public university libraries to join CARLI



#### 4.5.3. Factors that influenced private university libraries to join CARLI

For private universities, discounted/ subsidized electronic resources and brokering 84%, reciprocal borrowing 74%, cost effectiveness 68%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 68%, I-Share Integrated Library System 58%, training and continuing education 58%, and value of networking with other members at CARLI meetings/ conferences 58% were the most important factors; CARLI staff (42%) were also an important influencing factor for private university libraries.

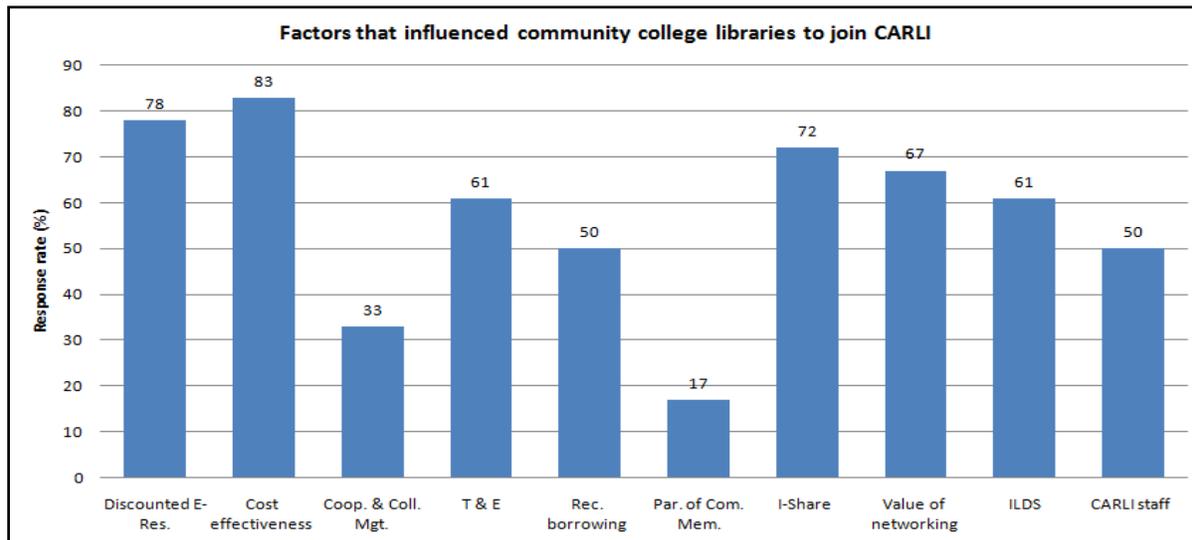
**Graph 15:** Factors that influenced private university libraries to join CARLI



#### 4.5.4 Factors that influenced community college libraries to join CARLI

For community college libraries cost effectiveness 83%, discounted/ subsidized electronic resources and brokering 78%, I-Share Integrated Library System 72%, value of networking with other members at CARLI meetings/ conferences 67%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 61%, and training and continuing education 61% were selected as the most influential factors. CARLI staff plays a 50% role as influencing factor.

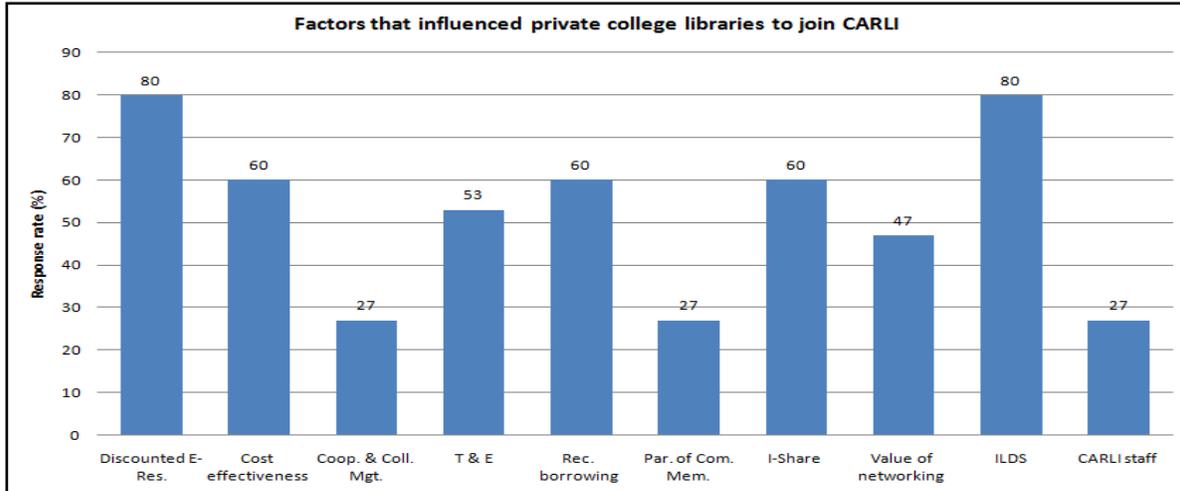
**Graph 16:** Factors that influenced community college libraries to join CARLI



#### 4.5.5 Factors that influenced private college libraries to join CARLI

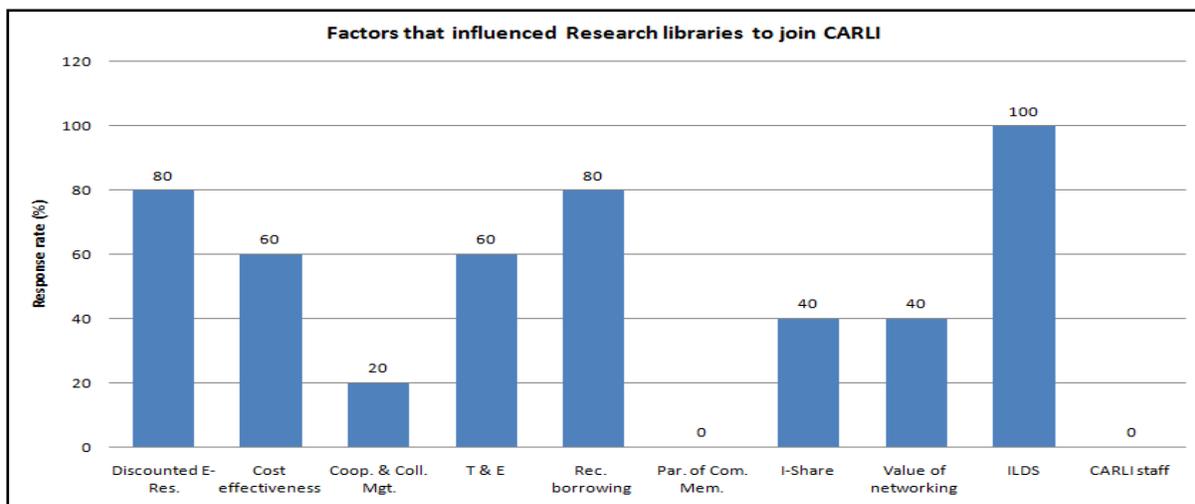
Discounted/ subsidized electronic resources and brokering 80%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 80%, cost effectiveness 60%, I-Share Integrated Library System 60%, reciprocal borrowing 60% and training and continuing education 53% are the most significant factors that influenced private college libraries to join CARLI.

**Graph 17: Factors that influenced private college libraries to join CARLI**



#### 4.5.6 Factors that influenced Research libraries to join CARLI

**Graph 18: Factors that influenced Research libraries to join CARLI**



The overwhelming factors that influenced research libraries to join CARLI included: ability to obtain quick delivery of physical materials from member libraries (ILDS) 100%, discounted/ subsidized electronic resources and brokering 80%, and reciprocal borrowing 80%, cost effectiveness 60%, and training and continuing education 60%.

The respondents were asked to identify other factors that influenced them to join CARLI other than those listed on the questionnaire, and these included: the efficiencies

presumed from merging the three legacy consortia (ICCOMP, IDAL & ILSCO); commitment to the principle of library consortia; academic connection; digital library grants; potential for academic library leadership; and the larger more central power of a combined consortium for advocacy and purchasing power were identified as some of the reasons that led them to join CARLI.

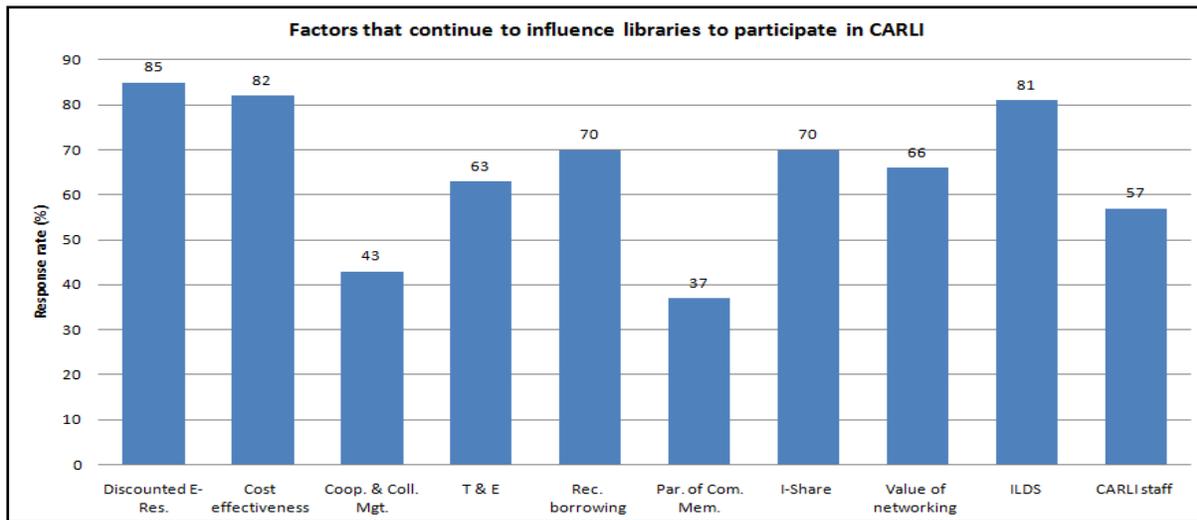
#### 4.6 Q6 Factors that influence CARLI members to continue participating in CARLI

**Table 5:** Key 4

<b>Discounted E-Res.</b> = Discounted/ subsidized electronic resources and brokering
<b>Cost effectiveness</b> = Cost effectiveness
<b>Coop. &amp; Coll. Mgt.</b> = Cooperative collection management
<b>T &amp; E</b> = Training and continuing education
<b>Rec. borrowing</b> = Reciprocal borrowing
<b>Par. Of Com. Mem.</b> = Participation of committee members
<b>I-Share</b> = I-Share Integrated Library System
<b>Value of networking</b> = Value of networking with members at CARLI meetings/ conferences
<b>ILDS</b> = Ability to obtain quick delivery of physical materials from member libraries (ILDS)
<b>CARLI staff</b> = CARLI staff

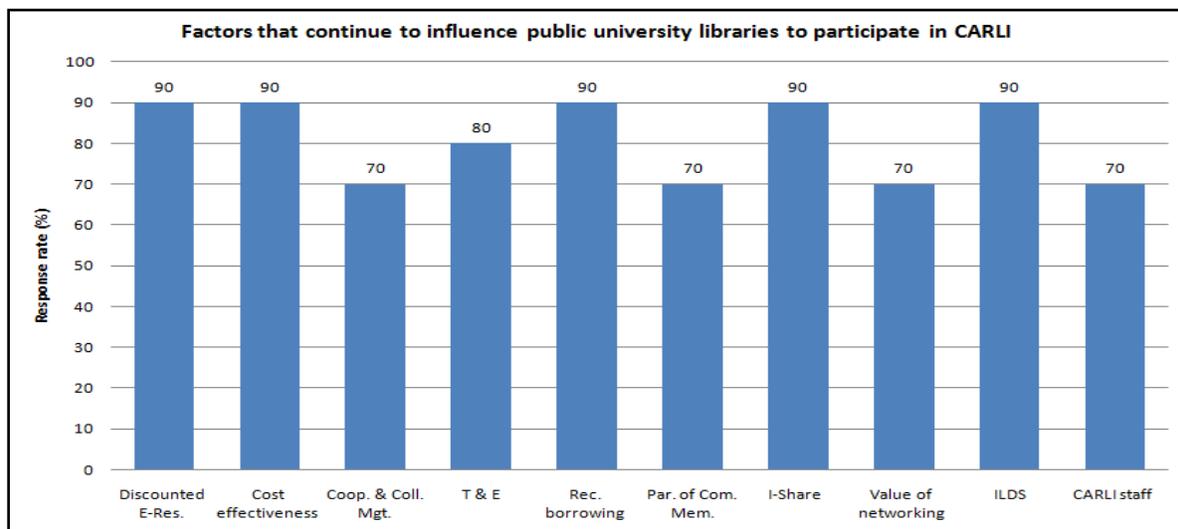
When CARLI member library directors were asked why they continue to participate in CARLI, they identified discounted/ subsidized electronic resources and brokering 85%, cost effectiveness 82%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 81%, reciprocal borrowing 70%, I-Share Integrated Library System 70%, value of networking with other members at CARLI meetings/ conferences 66%, and training and continuing education 63% as the most important factors. It's important to note that CARLI Staff 57% are a significant factor towards the continued participation in CARLI.

**Graph 19:** Factors that continue to influence libraries to participate in CARLI



#### 4.6.1 Factors that continue to influence public university libraries to participate in CARLI

**Graph 20:** Factors that continue to influence public university libraries to participate in CARLI



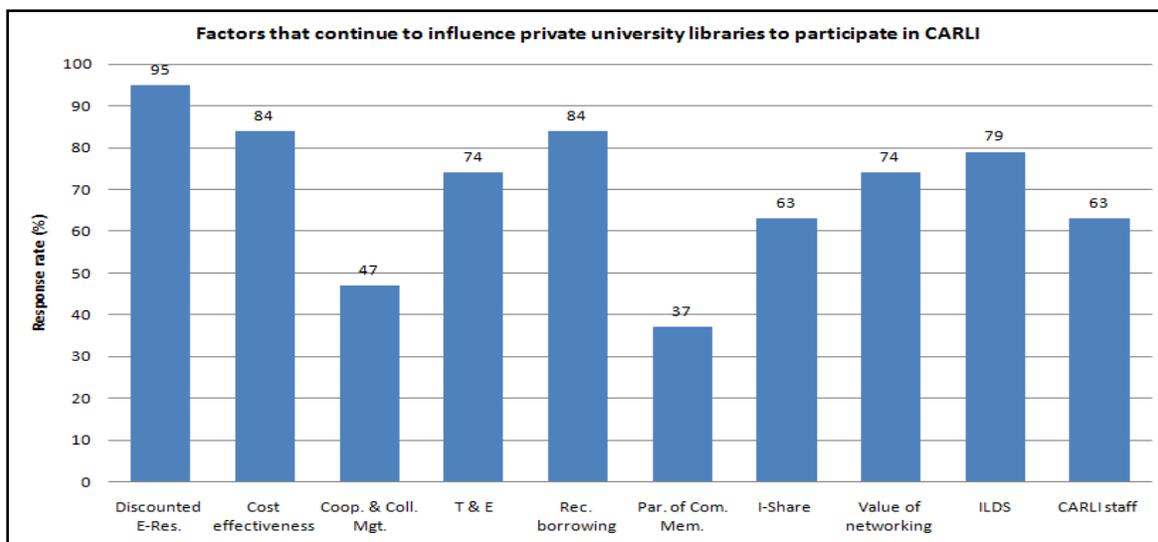
Overwhelmingly with a 70% and above response, public university libraries agreed that all ten factors influence their continued participation in CARLI. Of interest is the CARLI staff (70%) factor which significantly increased from 50% on merger. The highest ranked are discounted/ subsidized electronic resources and brokering, cost

effectiveness, reciprocal borrowing, I-Share Integrated Library System, and ability to obtain quick delivery of physical materials from member libraries (ILDS) all with 90% score of the respondents.

#### 4.6.2 Factors that continue to influence private university libraries to participate in CARLI

With the exception of cooperative collection management 47% and participation of committee members 37%, private university libraries like public university libraries identified the following factors as the most important for their continued subscription to CARLI. These included discounted / subsidized electronic resources and brokering 95%, cost effectiveness, and reciprocal borrowing 84%, ability to obtain quick delivery of physical materials from member libraries (ILDS) 79%, Value of networking with other members at CARLI meetings/ conferences, and training and continuing education 74%, and I-Share Integrated Library System, and CARLI Staff (63%) as the most significant factors.

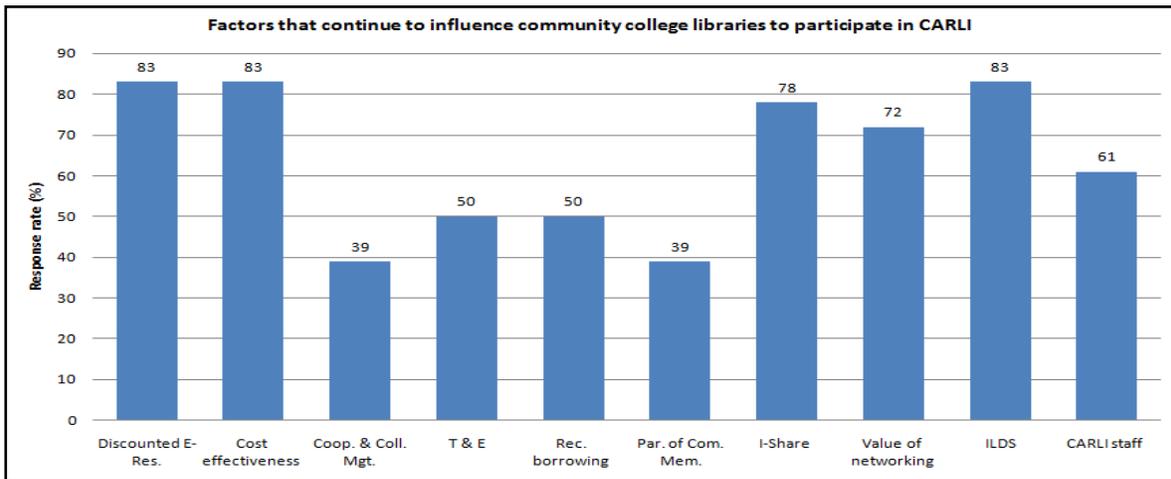
**Graph 21:** Factors that continue to influence private university libraries to participate in CARLI



#### 4.6.3 Factors that continue to influence community college libraries to participate in CARLI

Community college libraries too maintained the same trend of factors that continue to influence participation in CARLI like both public and private universities.

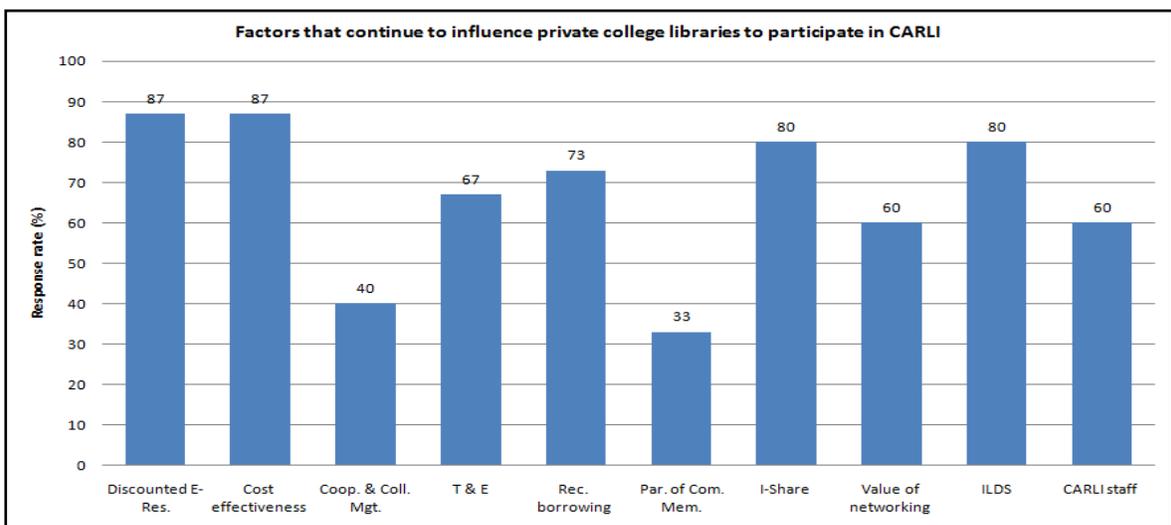
**Graph 22:** Factors that continue to influence community college libraries to participate in CARLI



Community college libraries valued mostly discounted / subsidized electronic resources and brokering, cost effectiveness, and, ability to obtain quick delivery of physical materials from member libraries (ILDS) all at 83%, I-Share Integrated Library System 78%, and value of networking with other members at CARLI meetings/ conferences 72%. CARLI staff (61%) is highly significant for research libraries.

**4.6.4 Factors that continue to influence private college libraries to participate in CARLI**

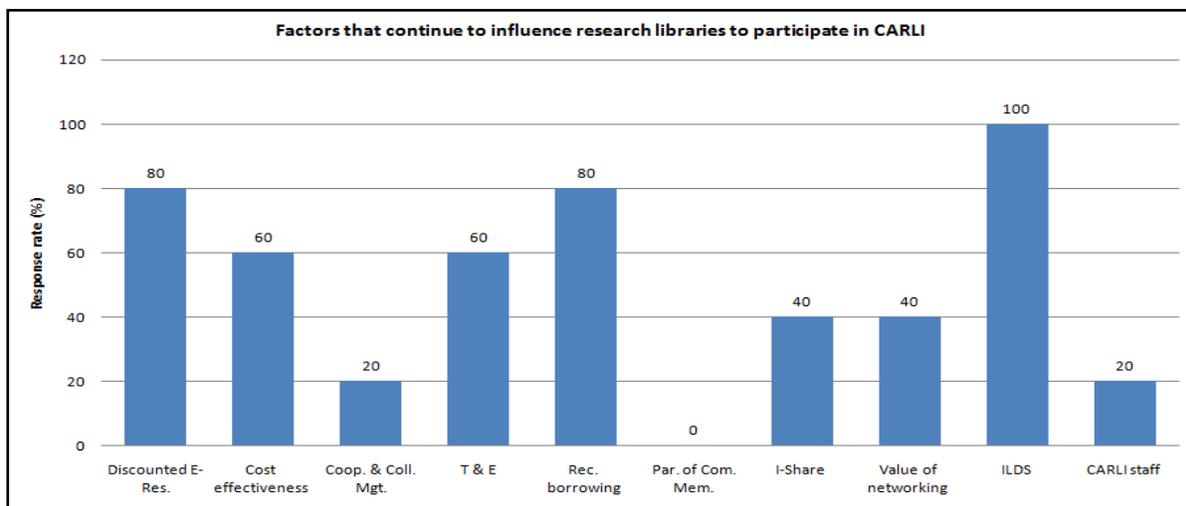
**Graph 23:** Factors that continue to influence private college libraries to participate in CARLI



Private college libraries too followed the same trend as public and private university libraries, and community college libraries. Percentages included discounted / subsidized electronic resources and brokering, and cost effectiveness all 87%, ability to obtain quick delivery of physical materials from member libraries (ILDS) and, I-Share Integrated Library System together at 80%, reciprocal borrowing 73%, training and continuing education 67%, CARLI Staff, and value of networking with other members at CARLI meetings/ conferences together at 60%.

#### 4.6.5 Factors that continue to influence research libraries to participate in CARLI

**Graph 24:** Factors that continue to influence research libraries to participate in CARLI



Ability to obtain quick delivery of physical materials from member libraries (ILDS) 100%, discounted / subsidized electronic resources and brokering, reciprocal borrowing together at 80%, cost effectiveness, and training and continuing education at 60% are the most significant factors for research libraries to continue participating in CARLI.

The respondents also identified other factors that continue to influence them to participate in CARLI and these included: being part of a unified voice for libraries in Illinois and the United States; the academic connection; digitization grants; and new options for last-copy print archiving.

#### 4.7 Q7 CARLI values

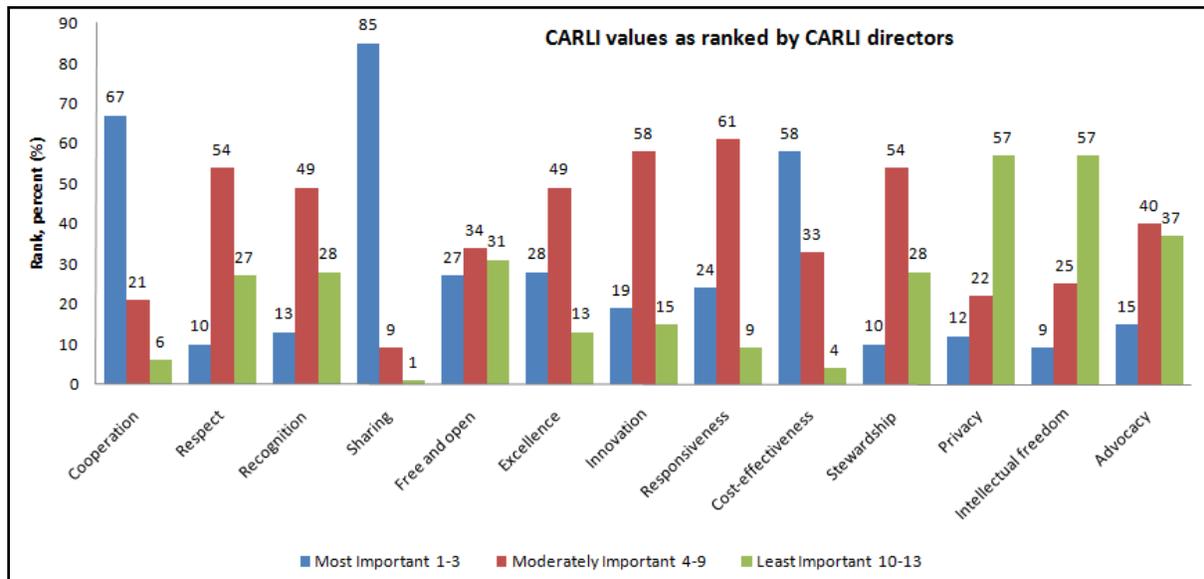
CARLI has 13 guiding principles or values. The respondents were asked to rank these values from 1-13 (1 being most important, and 13 being the least important) the way they think that they are important to CARLI, their membership, and institutions. During the analysis, the rankings were grouped into 3 categories, including 1-3 as most important, 4-9 as moderately important, and 10-13 as least important. The CARLI values (Oct. 2009) are as shown in the key below.

**Table 6:** Key 5

<b>Cooperation</b>	Cooperation among academic and research libraries of all types, sizes and missions.
<b>Respect</b>	Respect for the diverse missions and populations served by member institutions.
<b>Recognition</b>	Recognition of each member institution's autonomy
<b>Sharing</b>	Sharing the full range of academic library resources effectively and economically.
<b>Free and open</b>	Free and open access to all intellectual resources
<b>Excellence</b>	Excellence in providing services and programs
<b>Innovation</b>	Innovation in identifying and implementing collaborative solutions to shared challenges.
<b>Responsiveness</b>	Responsiveness to member needs
<b>Cost-effectiveness</b>	Cost-effectiveness in the delivery of programs, services, and products.
<b>Careful stewardship</b>	Careful stewardship of all CARLI resources
<b>Privacy</b>	Protecting the privacy and security of library records
<b>Intellectual freedom</b>	Supporting intellectual freedom
<b>Advocacy</b>	Advocacy for academic and research libraries at the local, state, regional and national levels

#### 4.7.1 Overall ranking of CARLI values by the CARLI Library Directors

**Graph 25:** Overall ranking of CARLI values by the CARLI Library Directors

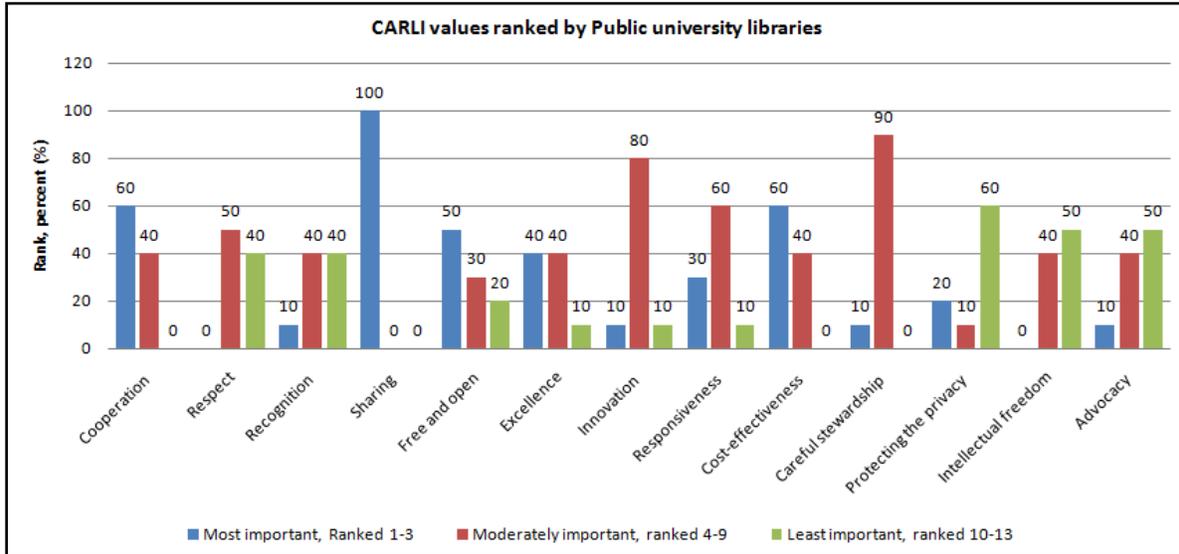


Overall, sharing the full range of academic library resources effectively and economically 85%, cooperation among academic and research libraries of all types, sizes and missions 67%, and cost-effectiveness in the delivery of programs, services, and products 58% were ranked as the most important CARLI values by CARLI directors. Responsiveness to member needs 61%, and innovation in identifying and implementing collaborative solutions to shared challenges 58% were the moderately important values. The least important were protecting the privacy and security of library records, and supporting intellectual freedom at 57%, however it's important to note that some values like free and open access to all intellectual resources, and supporting intellectual freedom are strongly supported by the respondents but seen as NOT unique for CARLI as quoted below "I strongly support this value, but it's not unique to CARLI, and hard to rank in comparison to others". There are certain values that members obviously expect from the consortium shown by the fact that they participate in that consortium, such as free and open access to all intellectual resources.

Analysis of the ranking of CARLI values by library type shows significant differences and similarities.

## 4.7.2 CARLI values ranked by Public university libraries

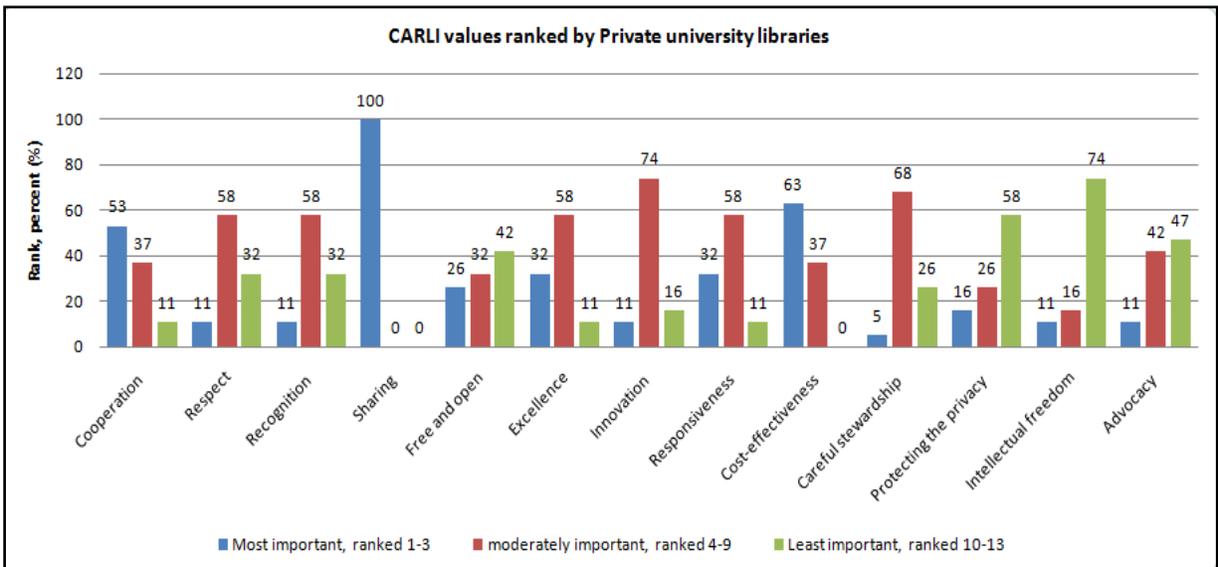
**Graph 26:** CARLI values ranked by Public university libraries



In public university libraries, sharing the full range of academic library resources effectively and economically 100%, and cooperation among academic and research libraries of all types, sizes and missions 60% were ranked as the most important values. Careful stewardship of all CARLI resources 90%, and innovation in identifying and implementing collaborative solutions to shared challenges 80% were rated as the moderately important values. Protecting the privacy and security of library records 60%, supporting intellectual freedom 50%, and advocacy for academic and research libraries at the local, state, regional and national levels 50% were ranked as the least important values.

### 4.7.3 CARLI values ranked by Private university libraries

Graph 27: CARLI values ranked by Private university libraries

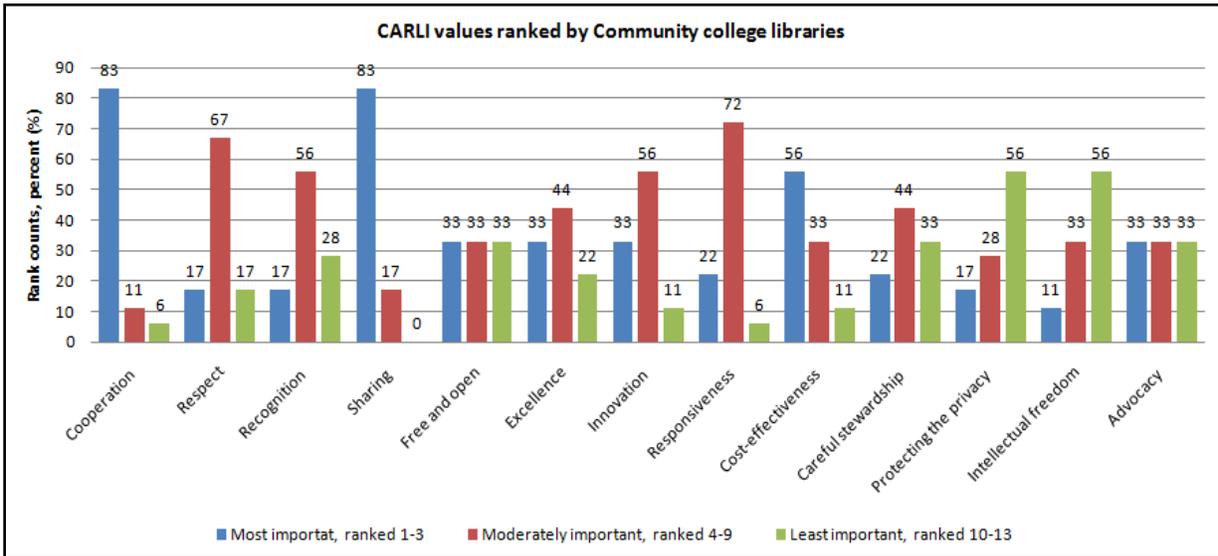


Like public university libraries, private university libraries too show the same trend towards CARLI values.

### 4.7.4 CARLI values ranked by Community college libraries

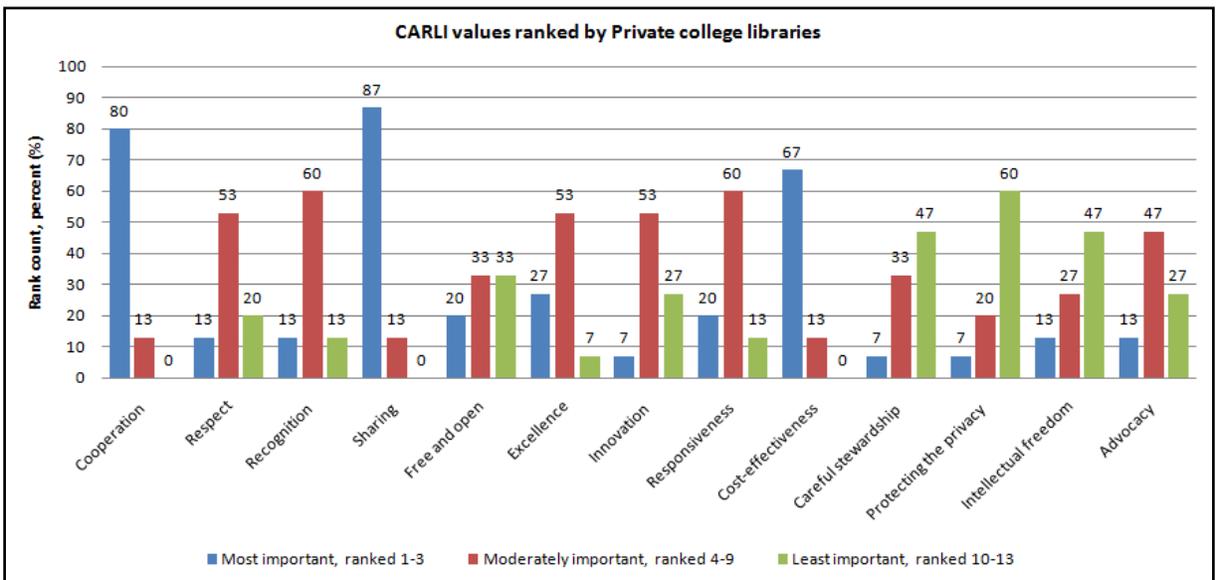
Both community and private college libraries show the same trend towards CARLI values. Cooperation among academic and research libraries of all types, sizes and missions (83%, 80%); sharing the full range of academic library resources effectively and economically (83%, 87%); and cost-effectiveness in the delivery of programs, services, and products (56%, 67%) were ranked as the most important values respectively. One respondent emphasized that “cooperation is very important for a small community college library”.

**Graph 28: CARLI values ranked by Community college libraries**



#### 4.7.5 CARLI values ranked by Private college libraries

**Graph 29: CARLI values ranked by Private college libraries**

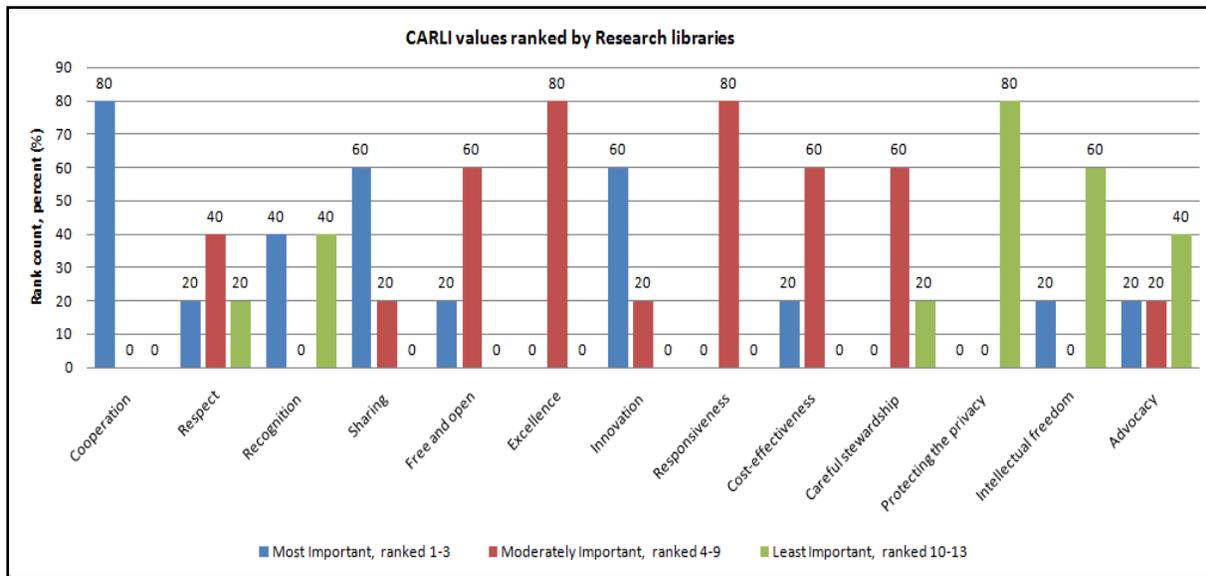


#### 4.7.6 CARLI values ranked by Research libraries

Research libraries show both similarities and differences in the preferred values. Cooperation among academic and research libraries of all types, sizes and missions 80%, sharing the full range of academic library resources effectively and economically

60%, and innovation in identifying and implementing collaborative solutions to shared challenges 60% were ranked as the most important values. Excellence in providing services and programs 80%, responsiveness to member needs 80%, cost-effectiveness in the delivery of programs, services, and products 60%, and careful stewardship of all CARLI resources (60%) were ranked as moderately important values.

**Graph 30: CARLI values ranked by Research libraries**



#### 4.8 Q8 Factors that have contributed to the success of CARLI

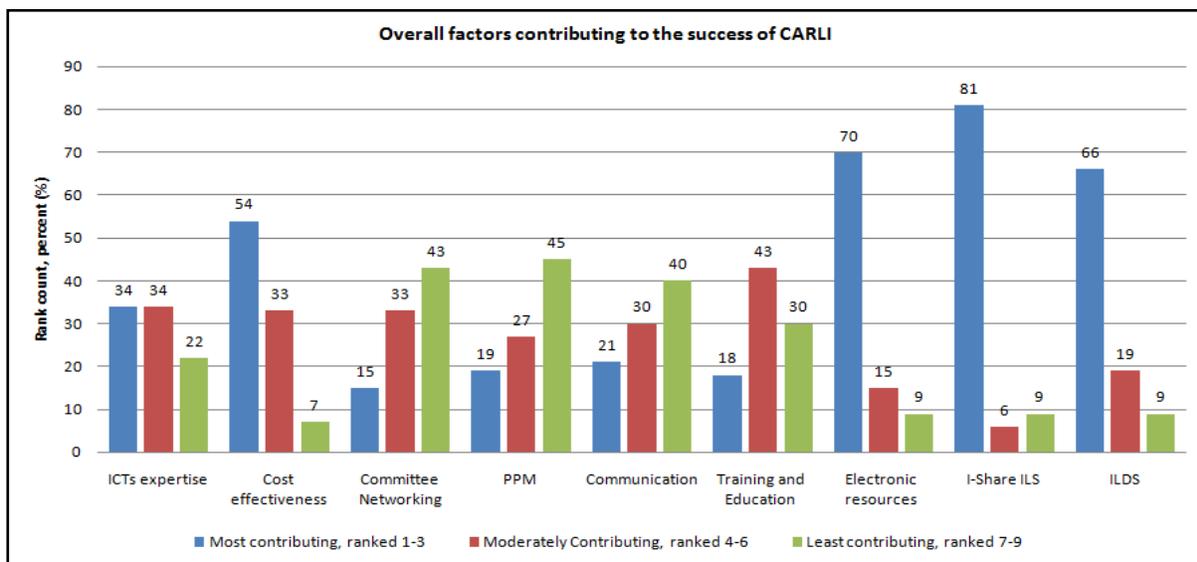
CARLI libraries were asked to rank nine factors that were listed in the survey as possibly contributing to the success of CARLI. The rankings were grouped into 3 categories, 1-3 as most contributing, 4-6 as moderately contributing, and 7-9 as least contributing. The following key shows details of the factors.

**Table 7: Key 6**

<b>ICTs expertise</b> = Technical expertise in Information and Communication Technologies
<b>Cost effectiveness</b> = Cost effectiveness
<b>Committee networking</b> = Networking and involvement (CARLI committees)
<b>PPM</b> = Project planning and management
<b>Communication</b> = Effective Communication
<b>Training and Education</b> = Training and Education
<b>Electronic resources</b> = Electronic resources brokering
<b>I-Share ILS</b> = I-Share Integrated Library System
<b>ILDS</b> = Illinois Library Delivery Service (ILDS)

**4.8.1 Overall ranking of the factors that have contributed to the success of CARLI**

**Graph 31: Overall ranking of the factors that have contributed to the success of CARLI**



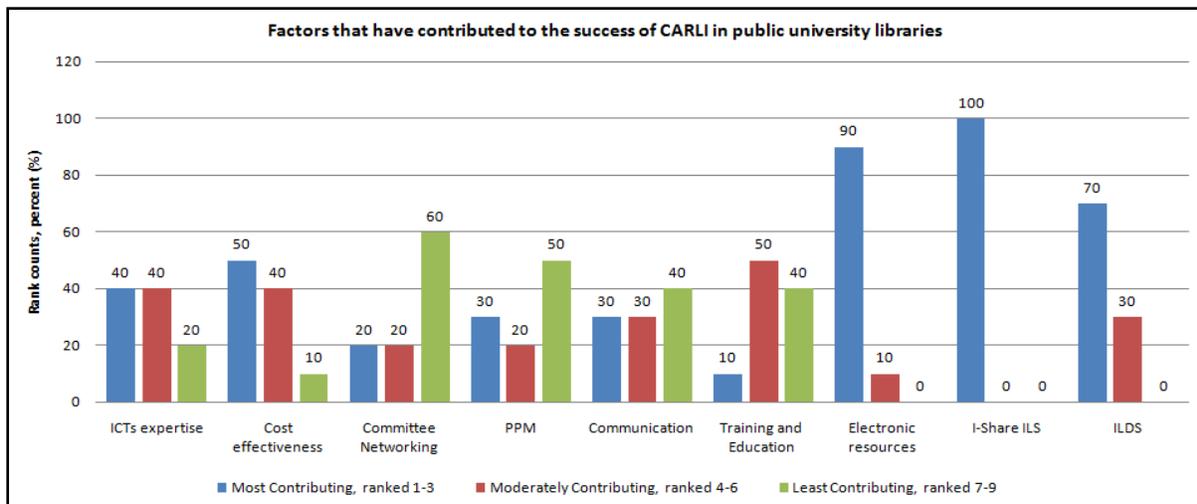
Overall, I-Share Integrated Library System 81%, electronic resources brokering 70%, Illinois Library Delivery Service (ILDS) 66%, and cost effectiveness 54% were ranked high as most contributing factors to the success of CARLI. One respondent stated that “cost effectiveness and return on investment is very important and mostly during the hard economic times where higher education leaders want to know whether they’ve gotten the university’s money’s worth ...” They further stressed that “CARLI’s achievement of a good financial model with quality products and services to offer to its members like I-share and ILDS”.

All the other factors were in either moderately or least contributing categories and ranked below 50%. Analysis by library type shows I-Share Integrated Library System, electronic resources brokering, Illinois Library Delivery Service (ILDS), and cost effectiveness as the most contributing factors; however some significant difference in the percentage of rankings shows up.

Comments from respondents included: ILDS is a wonderful cost-saving opportunity for the library, well-run program, and delivery time has gone from 5-7 days to 1-2 days; our institutions are small, so this area is very important and successful; and collegiality and sharing ideas have been very helpful.

#### 4.8.2 Factors that have contributed to the success of CARLI in public university libraries

**Graph 32:** Factors that have contributed to the success of CARLI in public university libraries

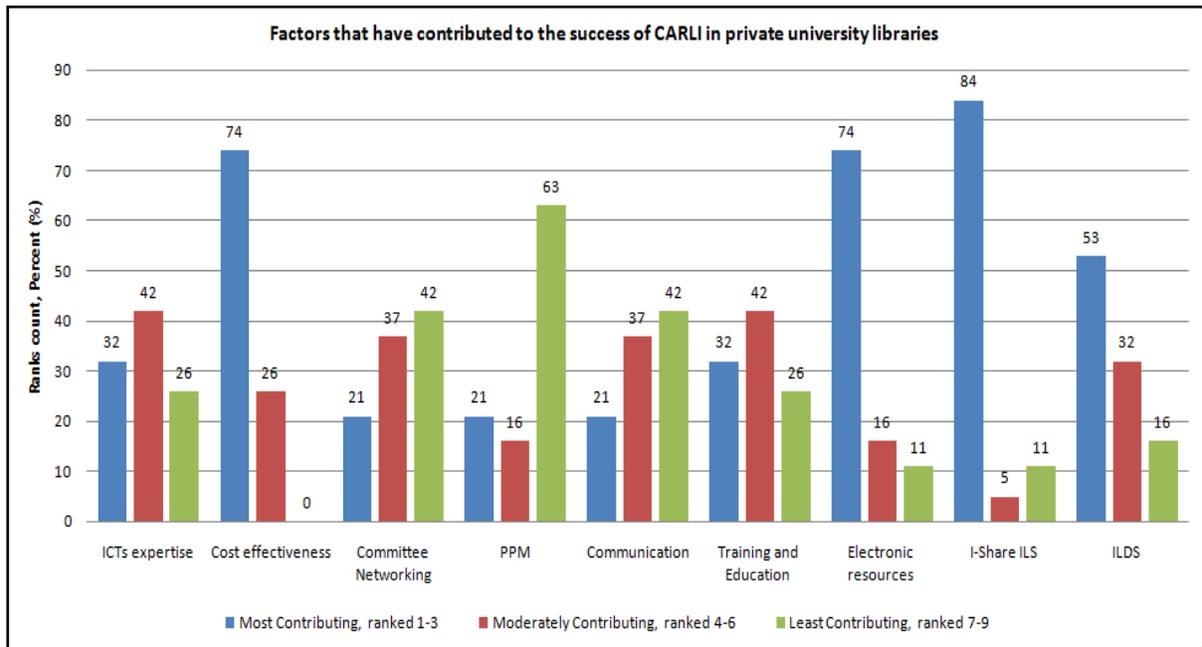


Training and education 50%, cost effectiveness, and ICTs expertise were ranked as moderately contributing factors for public university libraries, whereas networking and involvement (CARLI committees) (60%), project planning and management (50%) were the least contributing factors for public university libraries.

### 4.8.3 Factors that have contributed to the success of CARLI in private university libraries

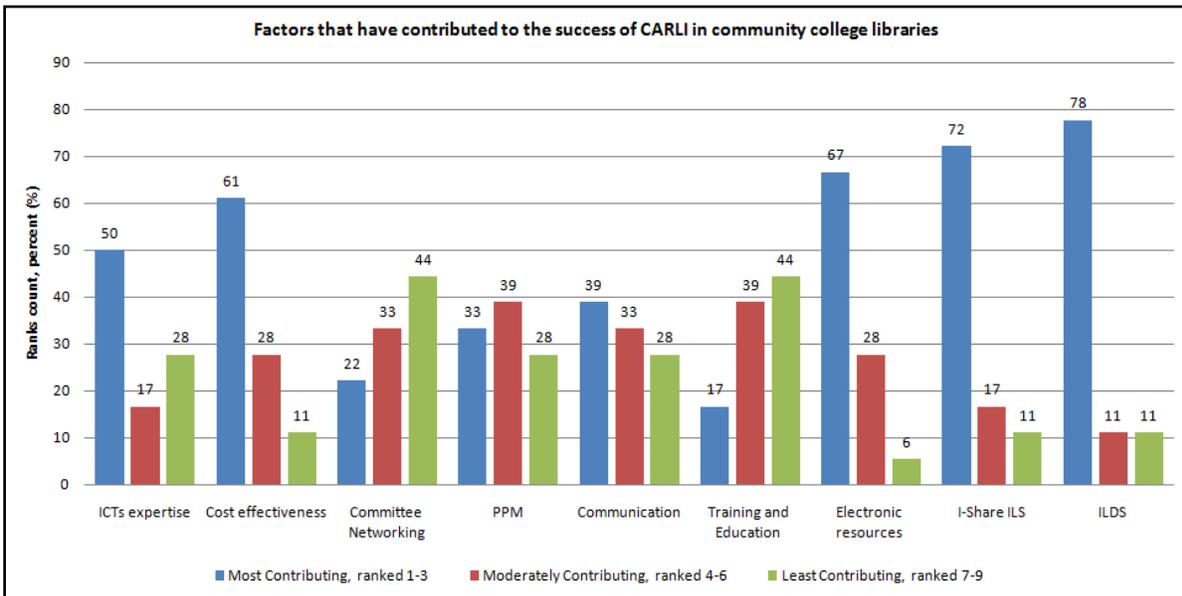
On top of the overall best three contributing factors, cost effectiveness (74%) is ranked high compared to Illinois Library Delivery Service (ILDS) (53%) by private university libraries. Project planning and management was ranked at 63%.

**Graph 33:** Factors that have contributed to the success of CARLI in private university libraries



#### 4.8.4 Factors that have contributed to the success of CARLI in community college libraries

**Graph 34:** Factors that have contributed to the success of CARLI in community college libraries

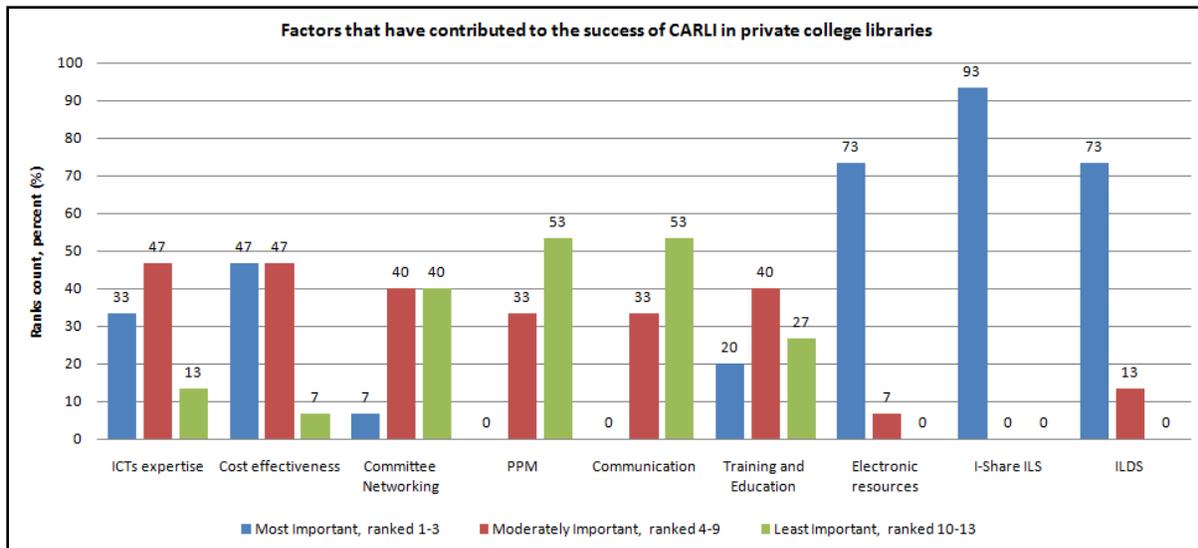


Illinois Library Delivery Service (ILDS) 78%, I-Share Integrated Library System 72%, electronic resources brokering 67%, cost effectiveness 61%, and ICTs expertise 50% were ranked as the most significant and successful contributing factors for community college libraries.

Other factors like good communication contribute to the success of CARLI as one respondent stated that “... through bottom-up communication ... smaller libraries feel that their needs and concerns are acknowledged, thus a feeling of recognition regardless of size and/ discipline”.

#### 4.8.5 Factors that have contributed to the success of CARLI in private college libraries

**Graph 35:** Factors that have contributed to the success of CARLI in private college libraries

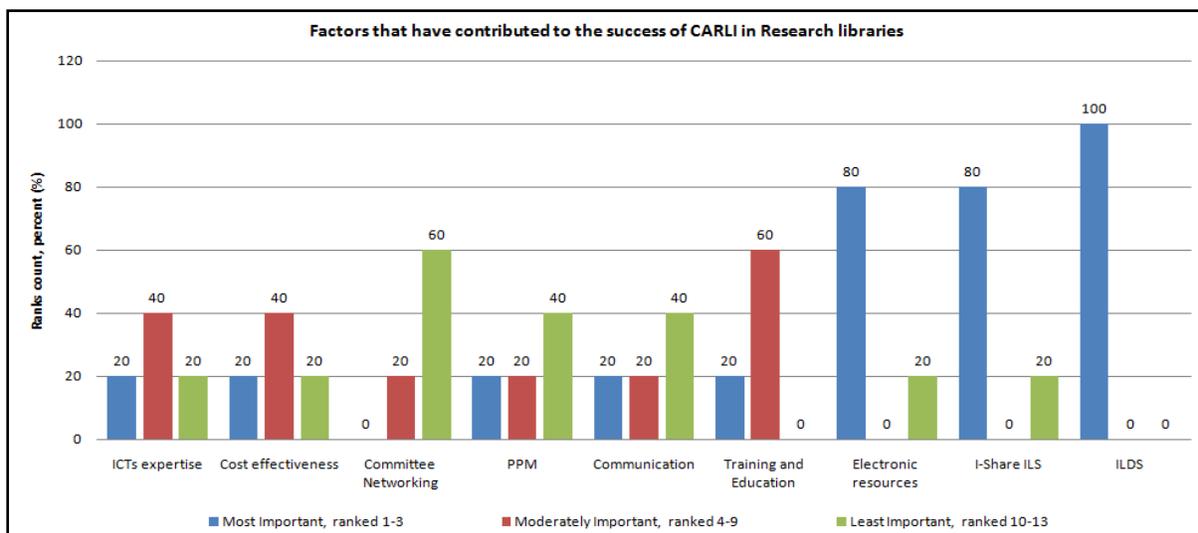


Like community college libraries, private college libraries follow the same trend; however project planning and management, and effective communication (53%) were ranked as the least contributing factors.

#### 4.8.6 Factors that have contributed to the success of CARLI in Research libraries

Research libraries show the same trend in ranking, however networking and involvement in CARLI committees (60%) was ranked as the least contributing factor.

**Graph 36:** Factors that have contributed to the success of CARLI in Research libraries



#### **4.9 Q9 Compared to money and other factors, what has led to the success of CARLI**

**Hypothesis:** Good relationship between consortium leadership and full participation of member libraries plays a more important role than money (funding) for the success of a consortium.

Seventy-five percent of the respondents agreed that it's not money that leads to the success of a consortium; rather it is good leadership and full participation of member libraries. However, the respondents insisted that money still played a bigger role as one respondent states that "... good relationship between consortium leadership and full participation make the consortium stronger and will help it succeed during times when resources (money) are scarce and times are tough ...the consortium will function effectively when more money is available... good relationships and full participation cannot be sustained if availability of money drops to a point where the consortium cannot fulfill its core mission, ...people will look to other consortia or alternatives to satisfy needs".

#### **4.10 Q10. Other factors identified by respondents that have contributed to the success of CARLI**

The respondents were asked to suggest other factors that are better predictors of success of a library consortium than those in Q.9 as discussed below:

There is a need for strong support and enthusiastic backing of a coordinating institution as a respondent puts it that "... helps a 'great' deal to have at least one strong anchor institution that is committed to the consortium. In CARLI's case, that has been the University of Illinois Urbana-Champaign".

Money too was identified as another factor as one respondent puts it "while a good relationship between consortium leadership and member libraries does predict consortium success to a certain degree, a greater predictor, particularly in these tough economic times, is the value libraries get for each dollar spent for that membership. The greatest value is in Shared Integrated Library Systems (in which the consortium houses and supports the ILS) and brokered electronic resources; without one or both of those things, I doubt individual libraries would consider becoming consortium members.

The leadership/ membership relationship certainly have their own 'added value' that member libraries truly appreciate and contribute to member loyalty".

The contribution of the state through funding is another identified factor. One respondent puts it this way: "we're nothing without the state funding for resources ... a good relationship between CARLI staff and libraries is an important factor ..., but we wouldn't be here as a group without funding."

The need for the consortium members to have a common goal as one respondent puts it that "like-mindedness, common goals and interests" ... leads to member libraries to have a common concern that unites them, like a shared catalog, shared resource sharing, or the need for advocacy for the consortium. The respondent suggests "a grassroot movement that sustains a consortium over time despite challenges".

There is a need for institutional administrators like presidents, provosts, deans, and boards to see the value in the consortium which leads to shared goals, high degree of fiscal responsibility and good fiscal planning, and transparency in all consortium operations. Most importantly, an administrator's understanding that "... membership doesn't mean a free ride and relief to reallocate resources else where ...".

Finally the willingness of the participating libraries to contribute staff, both professional and non-professional, to serve on committees and participate in consortium activities like at an awareness level, thus the "retention of members over time".

#### **4.11. Interview with CARLI staff**

As stated in the methodology, four CARLI management staff were interviewed to further investigate the hypothesis "it's not money that leads to successful resource sharing in a consortium rather a number of other factors". Presented below is the thorough investigation of what CARLI management does differently, how they do it and why they choose to do what they do the way they do it.

CARLI management staff was asked to identify what has and continues to be the primary factor behind the success of CARLI, and they said

Extraordinary staff that knows the consortium landscape is a major factor towards the success of CARLI and this is in conformity with the survey data from the respondents, for example Q5. Graph 15, over 39% of the libraries were influenced by

CARLI staff to join CARLI, and 57% said they continued to participate in CARLI because of the CARLI staff which is a significantly large percentage increase (from 39% to 57% overall). The trend is also similar for each library type. See graphs 13-18 & 19-24. According to CARLI management, “CARLI staff is self-motivated ..., they know that this is a good thing to do for the society and for the State of Illinois ..., and it’s not for money”.

The main focus of CARLI is not the libraries, but rather the patrons (staff, students & Illinois community) that benefit from this service and this is in conformity with the survey results from the respondents; for example, in **Q7**, Graph 25, 85% of the respondents ranked sharing the full range of academic library resources effectively and economically as the most important CARLI value; and sharing of information resources is facilitated by the I-Share integrated library system, Illinois Library Delivery System, and brokering of e-resources which were ranked 81%, 66%, and 70% respectively in **Q8**, Graph 31 as the most contributing factors towards the success of a consortium. All these products, services and programs are directed to the users openly. According to CARLI staff, “to think like this is a mission, not just a job”.

The long tradition of cooperation as a service in Illinois State is a factor to the success of CARLI as the survey showed in Graph 1. Overall participation of libraries in ICCMP was (61%), IDAL was (66%), & ILCSO was (55%), and similar trends are shown by library type as in Graphs 2-6, where 90% of the respondents participated in some consortium before joining CARLI. According to CARLI staff “CARLI is seen as ... one thing as opposed to having many things at the same time”. Libraries looked at CARLI as a one stop shop on merging because they have a choice over a selection of the services, products, and programs to subscribe to.

Historically CARLI and all the pre-consortia (ICCMP, IDAL & ILCSO) have been respected and trusted by its membership. CARLI has and continues to provide a service that is cost effective to the libraries and this is due to the trust and honesty between all stakeholders; for example, cost-effectiveness in the delivery of programs, services, and products was ranked by 58% of the respondents as one of the most important CARLI values. Without trust and honesty, membership won’t believe and have confidence in this consortium leadership. According to CARLI staff “... it is important to have trust in

people and people to have trust in us ... bringing upfront things that will work and those that will not work ... being able to select which services will work for each library and what does not work is the core of our operation”.

Through effective communication, CARLI staff indicated it is able to liaise efficiently and successfully with its membership no matter how big the geographical area. According to CARLI staff, communicating effectively facilitates the marketing of new services and products upfront to members’ attention through committees and temporary “ad hoc” groups. Thereafter members’ views and feedback are collected through different channels like wikis, tele- & computer conferencing, webinars, CARLI web page forms, annual surveys and annual CARLI directors’ conference. In addition, preliminary background information about a given product, service or program is provided to all committee/ group members to accelerate the whole process. Small groups of people can be facilitated to speed up awareness and implementation of a service, however to avoid high costs to CARLI, these are occasional. There is constant flow of communication between libraries and CARLI throughout the year. For example the quarterly communication sent by CARLI staff to libraries is intended to keep members up-to-date and aware of opportunities of which they may take advantage.

CARLI staff emphasize that there is an “expectation” that staff in CARLI member libraries share their expertise on committees, attend necessary training, and are, in general, active participants in the consortium. This assists consortium staff in the identification, evaluation, selection, implementation and operation of programs and services that will benefit the students, faculty and staff of the member libraries. The participation of libraries in CARLI committees explains the big organizational structure of CARLI and is a contributing factor towards CARLI’s success according to CARLI staff. However this contrasts with the respondents of whom 43% ranked networking and involvement (CARLI committees) (Graph 31) as the least contributing success factor towards CARLI’s success. According to CARLI staff, member libraries also benefit from their participation in the committees. For example members benefit professionally through career development and tenure, they get known outside their libraries by other members, they become a voice for their respective libraries as their views and concerns will be taken care of thus self protection, acquire extra expertise, skills and hands on

experience like web design, digitization, indexing and abstracting. It's important to note that some factors like effective communication will be important to the consortium staff and less important to the membership because the membership only looks at the end product not to the means by which the product is developed.

The culture of volunteering to perform consortium activities is another factor that has led to the success of CARLI, for example both CARLI's Standing (permanent) committees, and Temporary "ad hoc" groups are constituted by volunteers. In 2009, for the 30 committee positions available, over 170 members volunteered to serve. The committees not only bring members together, but also encourage new members to learn more about CARLI and create diversity of views in the consortium. CARLI makes a point of seeing that there is a diverse representation on committees so that no one library dominates a given committee and there is a balanced representation between smaller and larger libraries. Additionally, CARLI sees volunteering as a way to train and pass on skills to the new generation that has never been in cooperation before. Feedback given to each individual library's contribution/s helps to motivate members to volunteer more.

When CARLI staff were asked if the large organization structure and the involvement of many committees doesn't slow down decision making and implementation, they said "this is the best way to approach issues in a consortium ... and CARLI liaison staff are tasked to and always give guidance to the group/committee; however where an agreement fails, CARLI board of directors will make a final decision". From CARLI staff experience, "... a consortium does not move at 'lightning speed', things have to go step by step; and if it (consortium) does, then it will make a big mistake, thus the danger to cause catastrophe is very high. However there is need to move fast enough as moving slow is not good either". Through surveys, members' views are collected for making informed decisions.

When asked how significant UIUC is to CARLI's success, they were quick to say that "... UIUC is the coordinating institution through a Memorandum of Understanding that guides the two parties"; and this to CARLI has been an invaluable contribution because UIUC acts as a leader among other institutions. For example, CARLI enjoys a number of benefits from UIUC like payment for a substantial amount of CARLI's office

space; CARLI also uses the UIUC legal department services and university purchasing department services. CARLI is supported by the university's technology infrastructure like website and e-mail hosting, and UIUC's monetary contribution is very important to the consortium. CARLI staff members are academic professional or Civil Service employees of the University of Illinois. CARLI's funding is an appropriation by the state of Illinois to the University and is received through the UIUC.

When asked if such 'superiority' of UIUC does not demoralize other libraries, the staff said "... some libraries see it as honor and great opportunity to work with a bigger university ... however, there might be some rivalry". CARLI as an independent organization labors to demonstrate independence from UIUC throughout all processes. For example, all CARLI products and official documents are branded with the CARLI logo and the CARLI web page uses unique colors to distinguish it from UIUC. UIUC staff may not serve on every committee and there is equal balance among the big and small libraries. Tender documents are posted on CARLI web page and managed by CARLI staff. Ultimate decisions in the consortium are made by the CARLI Board of Directors which consists of representatives of the CARLI membership, not just the UIUC. In fact UIUC does not always have a seat on the CARLI Board. CARLI staff continuously reminds libraries of their active participation in CARLI through communication and being transparent.

CARLI staff indicated that "CARLI does not do everything for every member library ... otherwise it would become practically impossible to manage the consortium activities". They further say that "each member library should have the obligation to meet the needs of their users (students, faculty, staff and community). For example CARLI does not buy books for libraries, so libraries buy their own books, and hire their own reference librarians, and other staff". A library as big as UIUC's will have more services that it does by itself compared to a community college, therefore the size of the institution and library matters. Such freedom enjoyed by libraries, like subscribing to the service that they need, subscribing to other consortia other than CARLI, has helped CARLI to concentrate on those services that matter to the majority of libraries.

#### 4.12 Conclusion

**Hypothesis:** When CARLI staff were asked of money and other factors which one has been the most contributing factor towards the success of CARLI, they said “money has a significant push in a consortium because there is a big difference between consortia that receive funding and those that don’t, for example, “money is the foundation ... and adds value to the consortium...; however other factors are HIGHLY significant, because failure to involve members in the “whole thing”, then who will implement it ..., and to whom will the consortium staff be accountable?”. Though the respondents in the survey disagree that effective communication does not lead to consortium success, (Q8, Graph 31, effective communication is ranked at 40% of the respondents as the least contributing factor to the success of CARLI), it’s important to note that there are factors that matter to consortium staff as opposed to the membership.

## CHAPTER 5

### INTERPRETATION OF DATA

#### 5.1 Introduction

This chapter interprets the data presented in chapter four. The interpretation of the data is based on identifying factors that lead to the success of a consortium. In particular, the following details are discussed: consortium history of libraries towards success; factors that influence libraries to join and continue participating in a consortium; relationship between consortium leadership (governance and staffing) and its success; most important values for a library consortium; and factors that contribute to the success of a consortium. The disparities noticed across library types are outlined too.

#### 5.2 Factors that influence libraries to join a consortium

Results of the current study indicate that consortium member libraries prefer to subscribe to a single consortium that provides all or most of the important services that serve the needs of the patrons (faculty, students, staff and community) as opposed to subscribing to multiple consortia **Ch.4, Graphs 1-6**. A consortium should be a one stop shop for all the services, products and programs that satisfy the membership needs, while recognizing each member institution's autonomy, and giving respect for the diverse missions and populations served by those libraries.

Past consortium experience and the long tradition of cooperation play a significant role in the success of a consortium as evidenced among CARLI libraries. For example, 89% of all libraries in this survey belonged to a consortium before joining CARLI. The fact that these libraries belong to a community (the State of Illinois) that embraces collaboration makes it easier for them to participate in consortium activities.

Based on the findings from this research, discounted/ subsidized electronic resources and brokering; ability to obtain quick delivery of physical materials from member libraries (ILDS); the perception of cost effectiveness; reciprocal borrowing; shared integrated library system; value of networking with other members during meetings/ conferences; and training and continuing education are the most important factors that influence libraries to join and continue to participate in a consortium **Ch.4, Graph 7, Graph 13, and Graph 19**. However there are some disparities among

individual library types, for example, for research libraries, reciprocal borrowing, and training and continuing education are the most important factors **Ch.4, Graph 12**; while libraries that serve institutions with many teaching subject specializations such as public universities, are influenced by all the factors, **Ch.4, Graph 8**. It is important to note that libraries see as cost effective the participation in a single consortium where they get all the services they need **Ch.4, Graph 7, Graph 13, and Graph 19**. And the longer they stay in a single consortium, the more they discover how cost effective it is.

Research has shown that consortium staff play a very significant and more important role not only influencing libraries to join a consortium, but also influencing them to continue participating in the consortium. **Ch.4, Graph 13** For example 39% member libraries were influenced by CARLI staff to join CARLI, while 57% are influenced by CARLI staff to continue subscribing to the CARLI **Ch.4, Graph 19**. CARLI management staff also emphasized the need to have an extraordinary staff as a must for consortium success **Ch.4, section 4.11**.

Research has also shown that the more time consortium member libraries spend participating in a consortium, the more likely they are to continue participation and identify new services, products and programs that suit their needs **Ch.4, Graph 13; Ch.4, Graph 19**. However, this depends on how innovative the consortium staff is in identifying and implementing collaborative solutions to shared challenges.

A consortium whose services are perceived to be cost effective will attract many libraries to join it. For example, after the formation of CARLI in July 2005, 10% of the respondents who had no consortium experience joined CARLI.

### **5.3 Consortium values ranked high by libraries**

The most important values of a consortium to its member libraries are: sharing the full range of academic library resources effectively and economically; cooperation among academic and research libraries of all types, sizes and missions; and cost-effectiveness in the delivery of programs, services, and products. These three values are a reflection of the most important factors that influence libraries to join and continue to subscribe to a consortium. These should be the guiding principles of any consortium. In addition, the consortium should be able to put value in the following principles: responsiveness to member needs; innovation in identifying and implementing

collaborative solutions to shared challenges; respect for the diverse missions and populations served by member institutions; careful stewardship of all consortium resources; recognition of each member institution's autonomy; and excellence in providing services and programs. It is important to note that the preference for these values is the same across all member categories.

#### **5.4 Factors that contribute to the success of a consortium**

The most important factors that contribute to the success of a consortium include an Integrated Library System (ILS), electronic resources brokering, library delivery service, and the perception of cost effective consortium services respectively. Regardless of the library type, these factors are the most important and highly preferred services, products and programs from the library consortium.

Behind the success of a consortium is the need for a strong and enthusiastic backing of a host or coordinating institution. When the respondents were asked to identify other factors that have contributed to the success of CARLI, they stated that the presence and involvement of University of Illinois at Urbana-Champaign has played and continues to play an important role in the success of CARLI. CARLI staff in the interview agreed and they further emphasized the need for any consortium to avoid mixing consortium issues and those of the host institution through consortium branding, effective communication and membership involvement at all decision making levels.

Common goals and interests of the member libraries lead to consortium member libraries having a common objective and shared concerns. For example in the case of CARLI a shared integrated library system (I-Share), discounted/ subsidized electronic resources and brokering, reciprocal borrowing, and the need for training and continuing education were the reasons for the need to participate in a consortium. Therefore a consortium will need to identify the common goals of member libraries and how well they fit into the consortium goals.

The active participation of membership in consortium committees is a very important factor to the success of a library consortium. For example through CARLI committees, participating libraries either small or large are able to make their voice heard and CARLI staff are able to receive feedback from these libraries. The

committees not only bring members together, but also create a wide range of innovative ideas for the consortium.

Through effective communication, consortium staff are able to liaise efficiently and successfully with their membership. The most effective means of communication that are used by CARLI include but are not limited to e-mail, website, wikis, tele- and computer conference, newsletter, annual reports, reports on products, programs and services, surveys, and annual conferences directed to administrators such as library directors. According to CARLI staff, effective communication leads to trust building among the consortium members.

Building a culture to volunteer for consortium activities among both professional and non-professional library staff plays a significant role in consortium success. According to a CARLI evaluation survey report (May 2007), staff who volunteer to participate in consortium activities understand consortium activities well and can suggest and use the services and products of the consortium.

## CHAPTER 6

### APPLICATION OF SUCCESS FACTORS TO A DEVELOPING COUNTRY

#### 6.1 Introduction

The main objective for this research was to identify the factors contributing to the success of a consortium, and then find practical but local ways of applying these factors in a developing country like Uganda putting into context the economic, political, educational and sociological environments in these countries.

#### 6.2 Factors that could lead to the success of consortium in a developing country like Uganda

The consortium governance and leadership (staff) play a significant role in the success of a consortium. There is an urgent need to expand Consortium of Uganda University Libraries (CUUL) governance and leadership (staff) structure to make it more result oriented and engaging its membership in a structure similar to CARLI's permanent and temporary committees. For example a structure like General Assembly → Board of Directors → Executive Committee → CUUL staff → Functional Committees could be adopted. If this structure is adopted, the board of directors could be elected by the participating institutions with full powers equivalent to those of the General Assembly but will be required to report back to the General Assembly. In this case, the board could be meeting regularly to avoid delays in decision making and implementation of consortium activities.

A common integrated library system (like I-share) is a significant factor towards the success of a library consortium. Uganda libraries lack such a system, and they need to embrace a common integrated library system that will provide an online catalog for their own collection as well as a merged, union catalog of the holdings of all libraries in Uganda. As well as supporting resource sharing among CUUL libraries, the integrated library system will also support other library management functions like circulation, cataloguing, acquisition, serials control, course reserves and reporting. For example, Makerere University library is currently implementing a very robust VTLS integrated library system called Virtua, and it would be good if CUUL can endorse such a system so that other libraries can be able to join. Makerere University library has used the system and gained the necessary expertise and experience to bring on board other

libraries in Uganda. Though it's a vendor managed system that might be costly to some libraries, who may complain of the cost, but still they do not have the expertise in place to implement their own. If libraries come together to embrace such a system it will be less expensive, and easy to adopt because Makerere University already has the experience.

There is a need for CUUL to initiate and maintain new and effective communication channels to further stewardship, advocacy and increased awareness of its services, products and programs to its member libraries. CUUL can adopt the use of social networks and web 2.0 technologies. Blogs, wikis, website, twitter, e-mail, and telephone and computer conferencing are some of the technologies that should be considered. The only way for CUUL to reach out to its members is to innovatively initiate and use the available online communication channels to encourage members to get involved.

CUUL needs to look at innovative and engaging ways to cost effectively carry out its activities. For example, at the time this paper was written the CUUL website was down for over 10 months. Since its inception, CUUL has had neither permanent nor official offices where it can carry out its activities. It has been a constantly moving consortium, with its offices moving to the institution of the sitting chairman. Makerere University library as a coordinating institution could as well become the host institution through a Memorandum of Understanding with CUUL. Makerere University library could be able to provide free office space, CUUL can use Makerere University's IT department to host its website and e-mail server instead of soliciting for expensive internet services. It's on record that Makerere University library's monetary contribution, continued advocacy for CUUL, and training has always been high and so it can still do more for the success of CUUL.

Consistent with the CUUL, CUUL constitution, CUUL could initiate policies and procedures, so that consortium business is conducted within the law to avoid conflict of interest hence cultivating trust among members. This could avoid rivalry developing among the participating member libraries and the coordinating institution. For example, there is no policy or procedure in place between CUUL and Makerere University library as a coordinating institution, although there is a Memorandum of Understanding

between International Network for the Availability of Scientific Publications and Makerere University Library. There is also the need for policies and procedures on the responsibilities and privileges of member libraries, staff, board of directors, and functional committees; as well as branding standards to avoid confusion and monopoly of the big libraries. The failure for the continuity of the library delivery services was a result of failed or lacking interlibrary loaning policies, because the service was based “just on the trust” between librarians of the respective institutions (Rosenberg, 2001, 1993).

The need for collective advocacy to CUUL membership (library staff of the participating libraries), institutional administrators, and the government is necessary in order to solicit support in areas like Library Delivery Services (LDS) and e-resources subscription fees. For example, with funding from the government through the Uganda Higher Education Ministry, CUUL can have a Memorandum of Understanding with Uganda Postal Service to deliver print materials between institutions at a relatively low price. CUUL could be charged with setting up policies and procedures on behalf and in the interest of its member libraries. There is need for user awareness of such services and libraries to have respect and take extra care while handling items from other libraries, which can only be achieved through setting up tight and strict policies and procedures with stringent penalties for violating the same.

The culture of volunteering to perform consortium activities is another factor that needs to be strengthened among CUUL membership starting from the top (library directors) to bottom (non-professional staff). There are a number of advantages that staff benefit from participation in consortium activities as outlined in **4.11, section.8**. In order to avoid confusion to non experienced staff, CUUL staff liaison can be charged with overseeing and guiding the committee in its activities.

Electronic resources brokering is a vital, significant service, and the backbone of consortium success that CUUL needs to improve and bring more institutions on board, including research libraries. Bringing more members on board reduces e-resources subscriptions fees, increases income for the consortium through membership subscription fees, and the more members the consortium has, the more popular and solid its operations become. This can be achieved through electronic resources

licensing policies which will guide CUUL's efforts towards libraries subscription fees over a sustainable period of time. Through collective licensing, libraries will reduce e-resources costs for members, increase the breadth and coverage of collections, and purchase materials of lasting value.

Consortium funding is the foundation on which other factors build. Therefore CUUL needs to innovatively look for other ways to increase its funding base. This can be through: writing winning grants to start new programs and services, lobbying for government funding to support an e-resources budget, and rolling out a single integrated library system (Virtua) to reduce subscription costs, increase membership subscription fees (currently CUUL members pay \$150 compared to the CARLI Governing member category that pays \$1,000 or more, up to \$10,000), and provide/facilitate training programs to libraries. Consortium members will only value their consortium participation and continue to participate if they get value for the money paid.

CUUL needs not only to look at e-resources subscription as the only service that members can gain from the consortium. There are a variety of other services, products and programs that will get member libraries' attention to join the consortium. These include but are not limited to:- training and continuing education, abstracting and indexing services, consulting, technical support, preservation, digitization, retrospective conversion, web site development and hosting, courier/delivery services (Library Delivery Services), remote storage facilities, collection development, and electronic publishing.

## **CHAPTER 7**

### **CONCLUSION**

#### **7.1 Introduction**

The findings of the research are based on the data collected and presented in chapter 4. The data was collected using literature review, questionnaire and interviews. The data are presented in the form of figures (percentages), tables, graphs and charts with narrative statements for interpretation.

#### **7.2.1 Factors considered more important by consortium membership**

Ability to obtain quick delivery of physical materials from member libraries; discounted/ subsidized electronic resources and brokering; reciprocal borrowing; shared integrated library system (union catalogs); cost effectiveness; training and continuing education; consortium staff; and value of networking with other members during meetings/ conferences are the most important and influencing factors to consortium membership.

#### **7.2.2 Factors considered more important by consortium staff**

On top of the factors that influence consortium members to join and continue to participate in the consortium as outlined in 7.2.1 above, the following factors also are considered to be more important for the consortium staff: project planning and management; effective communication; technical expertise in Information and Communication Technologies; perceived need for cost-effectiveness in the delivery of programs, services, and products; careful stewardship of consortium services; advocacy for the consortium by all stakeholders at all levels.; and protecting the privacy and security of library records.

#### **7.2.3 Factors that influence libraries to join and continue to participate in a single consortium**

Ability to obtain quick delivery of physical materials from member libraries; discounted/ subsidized electronic resources and brokering; reciprocal borrowing; shared integrated library system (union catalogs); cost effectiveness; training and continuing education; consortium staff; value of networking with other members during meetings/ conferences are the most important factors that influence libraries to join and continue to participate in a consortium.

#### **7.2.4 Most influential consortium values**

The most important values of a consortium to its member libraries are: sharing the full range of academic library resources effectively and economically; cooperation among academic and research libraries of all types, sizes and missions; and cost-effectiveness in the delivery of programs, services, and products.

#### **7.2.5 Factors that lead to the success of a consortium**

Regardless of the library type, the most contributing factors towards the success of a consortium are: a shared Integrated Library System; electronic resources brokering; Library Delivery Services (LDS); and perception of cost effectiveness; a strong and enthusiastic backing of a coordinating institution; like mindedness, common goals and interests of the member libraries hence having a common objective; advocacy by all stakeholders at all levels; value of cooperation hence building trust, accountability and transparency; effective communication at all levels and by all players; and building a culture to volunteer by either professional or non-professional library staff at all levels.

#### **7.3 Suggestions for future research**

The research has identified the following as areas that may need further research

- The representation of private, and community college, and private University libraries in the collected data was below average and this might not have given a very good representation of the views of the libraries in those institutions compared to public university and research libraries. Further analysis with more representation of all stakeholders would help to give emphasis to the views that have been presented in this research.
- The research findings are based on the literature review, interviews from CARLI staff and questionnaire feedback from CARLI membership, however information about consortium in developing countries was based on the available literature. There is a need to survey consortium players in developing countries to get more details of why consortia in developing countries have not achieved more success.
- There is a growing concern among consortia membership from specialized library types and mostly those from smaller libraries that consortium member libraries that serve users with wider variety of needs like public and private

university libraries benefit more from the consortium. This creates imbalance and rivalry related to participation of small library types in the consortium. There is a need to investigate the lending behaviors of institutions and bring to light the wrongly perceived imbalance in sharing consortium services.

- This research has shown that the success of a consortium depends a great deal on the strength and enthusiasm of the coordinating institution. However, there is a growing reluctance among libraries in developing countries to accept this finding. There is a need for further research to establish why such belief does exist in developing countries. Such thinking in developing countries may well lead to the failure of the consortium.

#### **7.4 Conclusion**

The research findings showed that the consortium member libraries are influenced by services, products and programs that impact their library users directly, and those that are perceived to be cost effective. The innovativeness and enthusiasm of the consortium staff is a major influencing factor to the success of a consortium. The research further indicated that consortium history plays an important role in the success of a consortium. This lack of history might be an important factor in explaining why library consortia have not been successful in some developing countries.

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**APPENDIX A**  
**ONLINE CONSENT FORM**

**Questionnaire: Factors Leading to Successful Resource Sharing Survey**

You are invited to participate in a research study on satisfaction with your participation in CARLI. This study is conducted by **Frederick Lugya, under the supervision of Terry Weech in the Graduate School of Library and Information Science** at the University of Illinois Urbana Champaign. Mr. Lugya is gathering this information for his master's thesis in the School.

This study will take approximately **twenty minutes** of your time. You will be asked to complete the attached survey about your satisfaction with CARLI. Your decision to participate or decline participation in this study is completely voluntary and you have the right to terminate your participation at any time without penalty. You may skip any questions you do not wish to answer.

Your participation in this research will be completely confidential and data will be averaged and reported in aggregate. Possible outlets of dissemination may be published in an international journal of librarianship, but the primary purpose is to provide Mr. Lugya with data for his master's thesis. A summary of results may also be shared with the CARLI membership, but the confidentiality of individual responses will be maintained. Although your participation in this research may not benefit you personally, it will help us understand what contributes to satisfaction of participation in consortia such as CARLI.

Given our commitment to the confidentiality of individual responses, we believe there are no risks to individuals participating in this survey. If you have questions about this project, you may contact Terry Weech at 217-333-0646 or by email at weech@illinois.edu. If you have any questions about your rights as a research participant in the study, please contact the University of Illinois Institutional Review Board at 217-333-3670 (collect calls accepted if you identify yourself as a research participant) or via email at irb@illinois.edu. Please print a copy of this consent form for your records, if you so desire.

I have read and understand the above consent form, I certify that I am 18 years old or older and, by returning the completed survey, I indicate my willingness voluntarily take part in the study.

Yours Sincerely

Fredrick Kiwuwa Lugya

Masters student at the University of Illinois at Urbana-Champaign (Researcher)

## APPENDIX B

### QUESTIONNAIRE FOR CARLI LIBRARY DIRECTORS

Dear Respondent,

My name is Fredrick Kiwuwa LUGYA. I am a LIS masters student at the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign. As part of my masters degree program, I am writing my thesis on the topic: **Factors that lead to successful resource sharing in academic and research libraries: A case study of Consortium of Academic and Research Libraries in Illinois (CARLI) from 2005-2009 and how to apply it in developing countries like Uganda.** I request your support by filling in the following questionnaire. The information provided in this study will be STRICTLY used for writing this thesis and the confidentiality of your individual responses will be protected by not releasing any specific responses that would identify the responder. Only summaries of the responses will be provided.

Please respond to each of the 10 questions below and return the complete questionnaire to me at [flugya@illinois.edu](mailto:flugya@illinois.edu) Thank you, in advance, for your time.

1. What type is your institution? **(please tick that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> Public university  | <input type="checkbox"/> Community college   |
| <input type="checkbox"/> Private university | <input type="checkbox"/> Private college     |
| <input type="checkbox"/> Research library   | <input type="checkbox"/> High School Library |

2. What is your position in your institution

3. Which consortium did your institution belong to before joining CARLI in 2005 **(please tick all that apply)**

- Illinois Cooperative Collection Management Program (ICCMP), formed in 1986
- Illinois Digital Academic Library (IDAL), formed in 1999
- Illinois Library Computer Systems Organization (ILCSO), formed in 1980

4. Why did your institution join the consortium named in 3 above? **(please mark all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Discounted/ subsidized electronic resources and brokering | <input type="checkbox"/> Reciprocal borrowing                              |
| <input type="checkbox"/> Cost effectiveness  | <input type="checkbox"/> Participation of libraries                        |
| <input type="checkbox"/> Cooperative collection management                         | <input type="checkbox"/> Shared integrated library system (Illinet Online) |
| <input type="checkbox"/> Support and participation from member Libraries           | <input type="checkbox"/> Any Others  |
| <input type="checkbox"/> Training and continuing education                         |  |

5. When the consortia named in 3 above merged to form CARLI in July 2005, what influenced you to join CARLI **(please mark all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Discounted/ subsidized electronic resources and brokering | <input type="checkbox"/> Participation of committee members  |
| <input type="checkbox"/> CARLI staff   | <input type="checkbox"/> Value of networking with other members at CARLI meetings/ conferences               |
| <input type="checkbox"/> Reciprocal borrowing                                      | <input type="checkbox"/> Cooperative collection management   |
| <input type="checkbox"/> I-Share Integrated Library System                         | <input type="checkbox"/> Ability to obtain quick delivery of physical materials from member libraries (ILDS) |
| <input type="checkbox"/> Cost effectiveness  | <input type="checkbox"/> Training and continuing education   |
| <input type="checkbox"/> Any others  |  |

6. What influences you to continue participating in the new consortium (CARLI)? **(please mark all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Discounted/ subsidized electronic resources and brokering | <input type="checkbox"/> Participation of committee members                        |
| <input type="checkbox"/> CARLI staff   | <input type="checkbox"/> Value of networking with other members at CARLI meetings/ |

conferences

- Reciprocal borrowing
- I-Share Integrated Library System
- Cost effectiveness
- Any others
- Cooperative collection management
- Ability to obtain quick delivery of physical materials from member libraries (ILDS)
- Training and continuing education

7. CARLI has established a set of values, (<http://www.carli.illinois.edu/about/about-values.html>). Rank these values on a scale of 1-13 by putting a number on the left of each, where 1 is more important (**Rank 1-13**) and give a comment to your choice on the right.

Rank	Value	Comments
-	<b>Cooperation</b> among academic and research libraries of all types, sizes and missions.	
-	<b>Respect</b> for the diverse missions and populations served by member institutions.	
-	<b>Recognition</b> of each member institution's autonomy.	
-	<b>Sharing</b> the full range of academic library resources effectively and economically.	
-	<b>Free and open access</b> to all intellectual resources.	
-	<b>Excellence</b> in providing services and programs.	
-	<b>Innovation</b> in identifying and implementing collaborative solutions to shared challenges.	
-	<b>Responsiveness</b> to member needs.	
-	<b>Cost-effectiveness</b> in the delivery of programs, services, and products.	
-	<b>Careful stewardship</b> of all CARLI resources.	
-	<b>Protecting the privacy</b> and security of library records.	
-	<b>Supporting intellectual freedom.</b>	
-	<b>Advocacy</b> for academic and research libraries at the local, state, regional and national levels.	

8. Rank the following factors the way you think that they have contributed to the success of CARLI. Put a number on the left where **1** being the most contributing and **8** being the least.

Rank	Factors	Comments
-	Technical expertise in Information and Communication Technologies	
-	Cost effectiveness	
-	Networking and involvement (CARLI committees)	
-	Project planning and management	
-	Effective Communication	
-	Training and Education	
-	Electronic resources brokering	
-	I-Share Integrated Library System	
-	Illinois Library Delivery Service (ILDS)	

9. My hypothesis suggests that a good relationship between consortium leadership and full participation of member libraries plays a better role than money (funding) for the success of a consortium. Indicate if you agree with my hypothesis by selecting **Yes** or **No**

**Yes**

10. Please suggest other factors that are better predictors of success of a consortium than those above.

11. Any other comments

**APPENDIX C**  
**INTERVIEW CONSENT FORM**

**Factors Leading to Successful Resource Sharing Interview**

You are invited to participate in a research interview on satisfaction with your participation as a leader in CARLI. This interview is conducted by **Frederick Lugya, under the supervision of Terry Weech in the Graduate School of Library and Information Science** at the University of Illinois Urbana Champaign. Mr. Lugya is gathering this information for his master's thesis in the School.

This interview will take approximately **twenty minutes** of your time. You will respond to questions about your contribution and satisfaction with CARLI.

Your decision to participate or decline participation in this interview is completely voluntary and you have the right to terminate your participation at any time without penalty. You may skip any questions you do not wish to answer.

Your participation in this research will be completely confidential and data will be averaged and reported in aggregate. Possible outlets of dissemination may be published in an international journal of librarianship, but the primary purpose is to provide Mr. Lugya with data for his master's thesis. A summary of results may also be shared with the CARLI membership, but the confidentiality of individual responses will be maintained. Although your participation in this research may not benefit you personally, it will help us understand what contributes to satisfaction of participation in consortia such as CARLI.

Given our commitment to the confidentiality of individual responses, we believe there are no risks to individuals participating in this interview.

If you have questions about this project, you may contact Terry Weech at 217-333-0646 or by email at [weech@illinois.edu](mailto:weech@illinois.edu). If you have any questions about your rights as a research participant in the study, please contact the University of Illinois Institutional Review Board at 217-333-3670 (collect calls accepted if you identify yourself as a research participant) or via email at [irb@illinois.edu](mailto:irb@illinois.edu).

Please sign a copy of this consent form for your records, if you so desire.

I have read and understand the above consent form, I certify that I am 18 years old or older and, by signing this form, I indicate my willingness voluntarily take part in the study.

---

**Participant Signature**

---

**Date**

## APPENDIX D

### INTERVIEW QUESTIONS FOR CARLI STAFF

#### Interview outline for CARLI Management

**Topic:** Factors that lead to successful resource sharing in academic and research libraries: A case study of Consortium of Academic and Research Libraries in Illinois (CARLI) from 2005-2009 and how to apply it in developing countries like Uganda.

**Purpose of the interview:** In carrying out this interview will help further investigate my hypothesis that it's not money that leads to successful resource sharing but rather good leadership. I will investigate what CARLI management does different, how they do it and why they choose to do what they do the way they do it.

**Confidentiality of interviewees:** The information provided in this interview will be STRICTLY used for writing this thesis and the confidentiality of the results will be protected by not releasing any specific responses that identify the interviewees. Only summaries of the responses will be provided.

**Duration of the interview:** In order to keep the interviewee's attention and interest, the interview will take between 15-25 minutes.

**The contact information and biography:** The interviewer is a graduate student at the Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, pursuing masters in Library and Information Science, hoping to graduate in May 2010. Email address: flugya@illinois.edu; Telephone number is 217-840-9155.

**Data recording:** In order to keep the conversation details and relevant answers from the interviewees, I will use two methods of recording the responses: by taking notes and audio recorder.

I will interview two CARLI management staff

- From the questionnaire survey feedback I have received from the CARLI Directors indicates that CARLI has registered a tremendous success. From your own experience as CARLI management, what do you think has been the primary factors that have led to the success of CARLI? [follow-up questions depending on given answers keeping into context my hypothesis]

- Your organization does provide excellent products, programs and services to your members and there are 153 participating libraries in CARLI, what do you think that has indeed played a bigger role (you have done differently) in attracting this big number of libraries? Why do you think that some members are/ have not subscribed to some of the products like some members have indicated that they have dropped I-Share?
- From your organizational structure, there is a strong and wide network of committees that actively participate freely in CARLI activities. What do you think that motivates members to participate voluntarily in CARLI activities? Doesn't this big chain of command drag progress/ delay implementation and decision making?
- I understand that the University of Illinois at Urbana-Champaign (UIUC) is the coordinating institution and works very closely with CARLI management. What else UIUC does that is different from other members? How significant is UIUC to CARLI's success? Do you think that UIUC is a primary factor to CARLI's success? Does the superiority of UIUC looked at a threat by other members?
- Between funding (money), and cooperation from member libraries, what do you think has contributed more to CARLI's success?
- Why do you think that the factor (either money or member cooperation) mentioned above is the most underlying factor?

**Format of the interview:** I will keep defining the situation through a conversation by following these general questions.

- Could you say something more about ...?
- Can you give a more detailed description of ...?
- Can you give a more detailed description of how ...?
- Do you have further examples of ...?
- I would now like to introduce another topic: ...
- You then mean that....?
- What do you mean by ...?
- Does the expression... cover what you have just expressed