

## CHAPTER SIX

### IMPLEMENTING A LELICO COMMON LIBRARY SYSTEM

#### 6.1 Introduction

The majority of LELICO members chose the acquisition of a common library system as a first priority on the list of proposed activities for the consortium. This can be attributed to the fact that most member libraries are not yet computerised, and therefore seek the synergy of consortium membership to achieve this task. The few automated libraries are currently experiencing problems with their library systems, and they have expressed the need to change to a more efficient system. Purchasing a library system for LELICO would meet the needs of all members irrespective of their automation status. Acquiring the system individually would be costly for some members, especially given the current budgetary constraints, whereas buying a system collectively would be financially viable.

Another reason for prioritising a common library system is that the main goal of LELICO is to enable members to share information resources electronically. With the current automation status of members, this goal would be difficult to achieve. Hence, there is a need to provide an enabling environment for members to share resources and increase their productivity.

Members also indicated that LELICO's common library system should:

- be managed centrally, as there is a computer skills shortage that would make it difficult to manage the system separately;
- allow access to members' holdings;

- perform well on the system properties of functionality, usability, support and training, and vendor; and
- contain all the basic library modules of Acquisitions, Cataloguing, Circulations, Management Information, OPAC, and Serials.

According to an analysis of responses received from libraries that already use the INNOPAC library system, it appears to be performing very well despite high installation and maintenance costs. It was rated highly by GAELIC and FRELICO, as well as by individual libraries in Botswana, Namibia and Zimbabwe. The INNOPAC library system has had a positive impact on these libraries in terms of increased productivity, better services to clients and cost savings. These benefits can be extended to LELICO if the INNOPAC library is adapted to its special requirements.

## **6.2 Lessons from the Southern African region**

Consortia and libraries in the Southern African region that have common library systems have experienced the kinds of challenges facing LELICO. LELICO can learn from their experiences and facilitate the implementation process according to its own requirements. The INNOPAC library system is the most preferred choice of libraries.

The Free State Library Consortium (FRELICO), the Gauteng and Environs Library Consortium (GAELIC), and the South Eastern Academic Libraries System (SEALS) have already implemented the INNOPAC library system. GAELIC and FRELICO started using the system in 1998 and 1999 respectively (Edwards, 1998; FRELICO, 2007). SEALS libraries migrated from their old systems to the INNOPAC library system in 2001

(Clarke, 2007). Two Zimbabwe Library Consortium (ZULC) members, namely, the National University of Science and Technology Library and the University of Zimbabwe also use the INNOPAC library system. In Botswana, the University of Botswana and the Botswana College of Agriculture libraries have adopted the INNOPAC library system.

Studies on the performance of the INNOPAC library system in libraries in the Southern African region show a high level of user satisfaction. Underwood and Smith (2005) established that GAELIC members were generally satisfied with the performance of the system. However, their study revealed some concerns by members about a proposed central server. One concern was that a central server would have a negative impact on the relationships between libraries and their respective IT departments. Another concern was about control of the server since only one library could be the host, which would prevent any other library from having direct control of the server.

Taole (2008) evaluated the performance of the INNOPAC library system in GAELIC and FRELICO in South Africa, and in the libraries of the Botswana College of Agriculture, the National University of Science and Technology in Zimbabwe and the University of Namibia. Taole's study found that the system is performing well and that it meets most library needs. A primary concern of consortium members and the libraries was the response rate of the vendor to queries. A possible solution is the establishment of a regional office of Innovative Interface Inc. (vendor) in Southern Africa.

Another concern is the high costs of implementing the system. This is exacerbated by the fact that the INNOPAC library system is a USA-based system, and high foreign exchange rates have a negative impact on local libraries. Most of the consortia and individual libraries purchased the system with external funding and only have to carry the running costs.

Other lessons learned are:

- **System Management model** – The centralised model used by SEALS was found to have more advantages for a small consortium than the decentralised model used by the larger GAELIC. Clarke (2008) argues that financial savings are the main advantage of a centralised model. In his view, costs related to installation, hardware, software and related equipment are greatly reduced in this model. Another advantage is that direct access by member libraries to each other's holdings improves resource sharing. Furthermore, simultaneous upgrades are possible in a centralised model because a single installation automatically benefits all members.
- **Host institution** – It is imperative, especially for a small consortium, that the institution that hosts the server should have the appropriate infrastructure and capacity. The SEALS central server is located at Rhodes University in Grahamstown, and is accessible to all four member libraries (Clarke, 2008). It is supported by the university's computer department. The SEALS system manager is based at the university and provides specialised technical and support service to all member libraries, including user support, operations and maintenance of the system.

- **Communication** – Communication is central to the smooth running of a consortium and the management of a common library system. For example, all GAELIC member libraries have dedicated staff members who are responsible for the system And who represent their libraries in the GAELIC INNOPAC System Workgroup (GAELIC, 2008). These librarians communicate and meet regularly to share information and expertise.
- **Training** – The vendor of the INNOPAC library system provides initial training as part of the installation package, and consortia members organise on-going training as it becomes necessary. The different versions of the system used by GAELIC members have led to confusion in training sessions (Erasmus, 2007). If LELICO adopts a decentralised model, it will face the same problem.

Given the impressive performance of the INNOPAC library system in consortia and libraries in the Southern Africa region, it is clear that LELICO will benefit from implementing the system. The experiences and lessons from neighbouring consortia and libraries will prove to be advantageous to LELICO for solving problems and sharing expertise. LELICO will be able to participate in the INNOPAC User Group: Southern Africa, where information sharing takes place annually. The primary concern is financial constraints.

## **6.3 A proposal for implementing the LELICO common library system**

### **6.3.1 Preamble**

The need expressed by LELICO members for a common library system is a positive step towards improving resource sharing and enhancing the status of libraries in Lesotho. Common library systems have contributed positively to the business of libraries worldwide. First, they have not only greatly reduced the costs of carrying out various library operations, but have also improved training and support. The reduction of costs is vital, especially for Lesotho libraries, which are under serious budgetary constraints. Secondly, common library systems encourage networking and collaboration among members as they offer a single platform through which members can collaborate. Thirdly, resource sharing, which is the main reason for forming consortia, can run more effectively through shared catalogues, shared databases, collective purchasing and interlibrary lending. A common library system has a direct benefit for end users of member libraries as it enables equal access to resources. The commonality of the system implies that end users need not learn how to use different systems every time they visit a different library.

The good performance of the INNOPAC library system in GAELIC, FRELICO and selected Southern African libraries, means that it will also be generally suitable for LELICO. The study shows that the INNOPAC library system is considered to be a cutting edge technology that has met most library needs by providing regular upgrades and enhancements and being responsive to library developments. Not only has it

performed well in the consortia examined, but it has a good reputation in other parts of the world, as shown in a number of studies (see section 2.8.2).

### **6.3.2 System server model**

The study shows that LELICO members prefer a system that is centrally managed as it is thought to be more cost effective, both in terms of staff requirements and maintenance. It is also viewed as a potential platform for planned consortium resource sharing activities. Section 5.4 established that a central server is more beneficial for a consortium than several decentralised servers. These benefits relate to increased access to members' holdings, simultaneous system upgrades and reduced installation and running costs.

A key requirement for LELICO's common library system is that it should be centrally managed. The long-term benefits will be greater resource acquisition to be shared with many libraries at a reduced cost. Managing the server centrally will also improve the quality of records and encourage standardisation, which will contribute to better service provision. Lesotho is lagging behind in co-operative areas such as the compilation of national bibliographies, inter-library lending, and document delivery. A centrally managed common library system is therefore seen as a vehicle for driving these co-operative programmes.

The server should be hosted by the National University of Lesotho (NUL), the biggest and best-resourced library in the country. It was the first to computerise and it has the requisite experience to advise on matters relating to systems implementation and

maintenance. The Computer Services Unit at NUL has qualified personnel who can offer support for hosting a LELICO common library system.

#### **6.4 Functions and features of the system**

The main function of the proposed common library system will be to improve co-operation among members and to provide an efficient, cost-effective library service to all LELICO members. The system should contain all the following basic modules required by members:

- Acquisitions;
- Cataloguing;
- Circulations;
- Management information;
- OPAC; and
- Serials.

Additional modules could be purchased as and when the need arises. However, the modules that are necessary for resource sharing procedures like inter-library loan and electronic resources management would be included from the outset.

To operate effectively and to produce data of the highest quality, the system should adhere to international standards and accommodate programmes that enhance the consortium services from time to time. To achieve this, the system should:

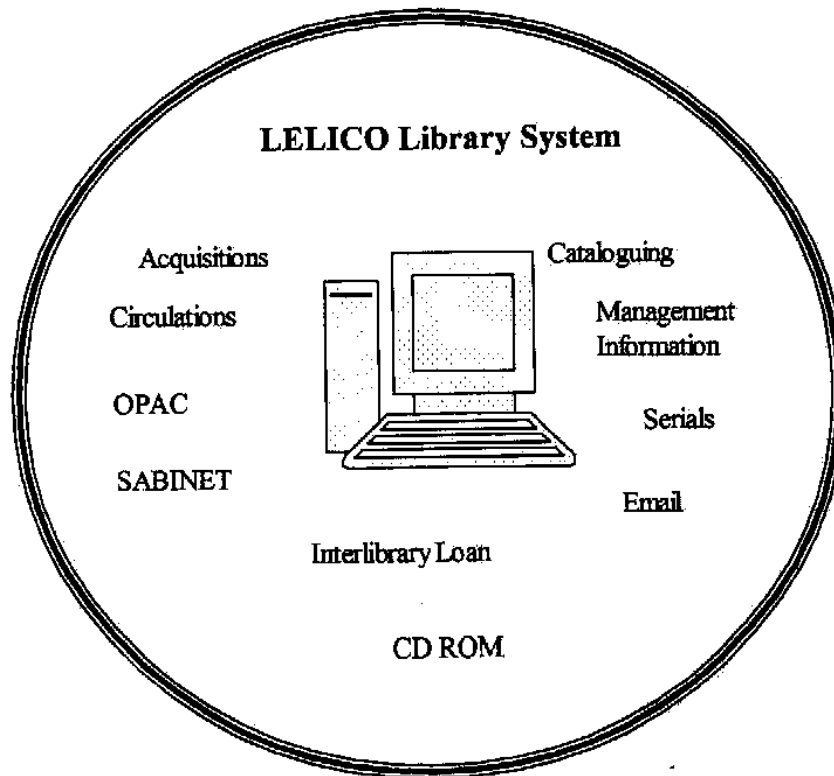


- comply with standards such as USMARC, Z39.50 (Search and present standard) and Anglo-American Cataloguing Rules, Second Edition (AACR2). These standards will ensure that the data in the system complies with internationally accepted quality assurance codes;
- be able to connect and down-load bibliographic records from external sources such as SABINET (South African Bibliographic Network). The system will allow optimal utilisation of networked resources by allowing users to connect with other sources and to use data from other databases;
- support a local area network (LAN) and wide area network (WAN). Infrastructure will be needed to support communication among computers in one location and libraries that are far apart;
- support the Transfer Control Protocol/Internet Protocol (TCP/IP) network protocol and the Simple Mail Transfer Protocol (SMTP) electronic mail protocol for optimal use of the internet and electronic communication;
- enable access by users from remote workstations. This is necessary because of the central location of the system and which should facilitate accessibility of all member libraries and their end-users who are geographically separated; and
- accommodate access to a CD-ROM server from all workstations, as there might be a need to assemble selected databases in a central server where they can be accessed by all members.

The system will need to be evaluated regularly to ensure that it meets expectations. Other features can be added according to the needs of member libraries.

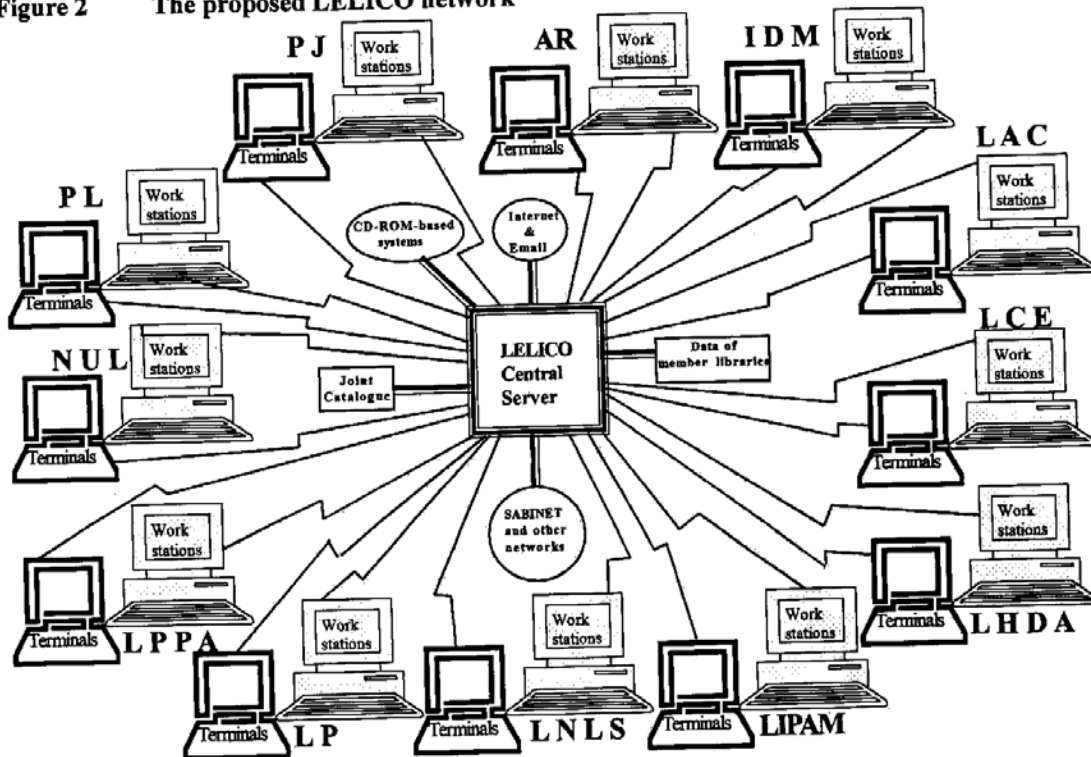
The functions of the system are shown in Figure 1.

**Figure 1 LELICO library system**



All member libraries should connect to this library system, which should be hosted by a central server through local and wide area networks. The proposed network is represented graphically in Figure 2 below:

**Figure 2 The proposed LELICO network**



**Key:**

- AR – Agricultural Research**
- IDM – Institute of Development Management**
- LAC – Lesotho Agricultural College**
- LCE – Lesotho College of Education**
- LELICO – Lesotho Library Consortium**
- LHDA – Lesotho Highlands Development Authority**
- LIPAM – Lesotho Institute of Public Administration and Management**
- LNLS – Lesotho National Library Service**
- LPPA – Lesotho Planned Parenthood Association**
- LP – Lerotholi Polytechnic**
- NUL – National University of Lesotho**
- PL – Parliament of Lesotho**
- PJ – Palace of Justice**
- SABINET – South African Bibliographic Network**

The LELICO central server should host all member library data and a joint catalogue. It should be connected to a CD-ROM tower containing databases accessible to members through the established network. The server should also connect members to SABINET and other related networks. Each member library should be able to connect to the server and access all services offered. Editing and amendments of records should only be undertaken by the library concerned; the remainder should only view the contents as required.

### **6.5 System management structure**

The organisational structure of LELICO currently comprises an Advisory Board, an Executive Committee, and working groups. The Advisory Board is the supreme governing and policy making unit of the consortium. It is composed of representatives from member libraries and research institution members of the consortium. According to the constitution of LELICO (LELICO, 2003), the functions of the Advisory Board are to:

- nominate and elect by ballot, members of the National Executive Committee, with the exception of member libraries who are *ex officio* members of the national Executive Committee;
- consider reports of the president, the executive secretary, and the national treasurer;
- assess the consortium's progress;
- formulate the consortium's policy;
- approve planning, funding development, grant proposal, projects, workshops, and networking capabilities of the consortium; and
- amend the constitution of LELICO.

The Executive Committee manages the affairs of LELICO. It consists of the president, vice president, executive secretary, vice secretary, treasurer, vice treasurer and two members. The functions of the Executive Committee are to:

- execute consortium policies adopted by the Advisory Board;
- carry out the day-to-day running of the consortium;
- decide what employment posts should be created, maintained or terminated for the effective running of the consortium;
- engage, determine employment terms and conditions of, and discharge any employees of consortium;
- open, operate and close banking accounts on behalf of the consortium and generally control the funds and finances of the consortium;
- borrow or raise monies and funds;
- invest monies and funds;
- allocate float amounts and other funds to respective branches;
- institute on behalf of or defend legal proceedings against the consortium and its members provided that in urgent circumstances the President may institute or defend such proceedings; and
- acquire either by purchase, lease or otherwise any movable or immovable property on behalf of the consortium or sell, mortgage or otherwise deal with or dispose of any movable or immovable property.

The working groups are formed by the Advisory Board with the recommendation of the Executive Committee. They perform specific tasks in line with the objectives of the

consortium. These include collection development, human resource development, resource sharing, bibliographic services, and information and communication technology (ICT).

### **6.5.1 The INNOPAC Steering Committee**

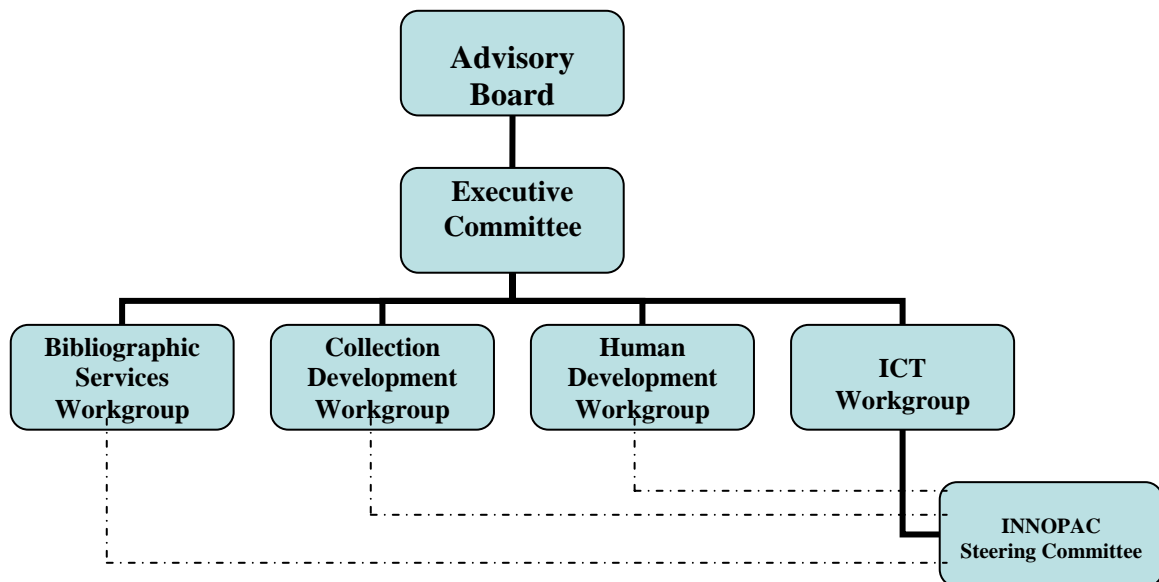
To facilitate the smooth running of the INNOPAC library system within LELICO, it is proposed that an INNOPAC Steering Committee should be formed under the ICT Working Group in the LELICO management structure. GAELIC has a similar committee responsible for the effective operation of the system among member libraries. The INNOPAC Steering Committee should consist of one representative (preferably the system co-ordinator) from each member library. A representative of the information technology section of the host institution should also be a committee member. The INNOPAC Steering Committee should be kept as small as possible to ensure that it remains efficient and effective. Its main objective should be to ensure the effective implementation and use of the INNOPAC library system by LELICO members. Its tasks will be to:

- advise LELICO on the necessary ICT infrastructure, hardware and software necessary for the implementation of the INNOPAC library system;
- liaise with the hosting institution on the maintenance and upgrade of the system;
- co-operate with the Human Resource Development Working Group to provide regular training sessions for member libraries;
- collaborate with the Bibliographic Services and Collection Development working groups;

- recommend additional system features deemed necessary to optimise resource sharing;
- develop the committee’s terms of reference in consultation with the host institution;
- develop a sustainable funding model for the system; and
- monitor and evaluate the system so that it performs according to the required standards and remains relevant to the objectives of LELICO.

The modified management structure that encompasses the proposed system structure is illustrated in Figure 3 below.

**Figure 3 Modified management structure**



## 6.6 Mode of operation

As the LELICO common library system will operate within a consortium environment, it is expected to reflect the collective goal of members. Although LELICO members are autonomous, they should place the common objectives of the consortium first, and work together to maximise the benefits of the system. It is imperative to recognise the importance of encouraging the extension of library services to the entire nation through access to information in all formats. The consortium and stakeholders (member libraries, institutions, service providers, etc.) should operate as follows:

- LELICO should enter into an agreement with the host institution on matters relating to the operation of a common library system. The National University of Lesotho is best suited to host for reasons given in section 6.3.2, however the final decision will lie with LELICO members.
- LELICO should seek external funding for the implementation of the INNOPAC library system. The initial costs of the system such as installation, hardware, software and other equipment will be paid for by LELICO; subsequent running costs should be borne by individual libraries as determined by members. LELICO should make payments to host institutions on behalf of client libraries for all services.
- The host institution should be responsible for housing the shared server, telecommunication network and other related servers such as the CD-ROM servers that will facilitate the running of the system. The system should be made available to LELICO members through remote access. Data stored in the central



server by members should be available for access, but it should not be edited or deleted by other members of the consortium.

- The host institution should maintain the system and ensure that it runs smoothly at all times. LELICO members should be called ‘client libraries’, should report queries to designated personnel at the host library. End users should not directly report to the host library, but through system co-ordinators in their respective libraries.
- The host institutions should keep all records relating to the connection of client libraries to the server. These should be made available to client libraries and LELICO as required.
- LELICO should formulate operating policies that support other related services such as Inter-library loan and document delivery.
- LELICO’s INNOPAC Steering Committee should meet regularly to assess the operation of the system and recommend amendments to the host library.
- Client libraries should appoint system co-ordinators who should, among other functions be a contact point between the host library and client library. The system co-ordinators should report all queries reported to them by staff and users to the host library. The system co-ordinators should also be responsible for the smooth operation of the system in their libraries.
- The INNOPAC Steering Committee should assist system co-ordinators to arrange training for staff in the various modules of the INNOPAC library system. The general patron orientation programmes should remain the responsibility of member libraries.

- Client libraries should direct all payments relating to the hosting and operation of the central server to LELICO, which should then forward them to the host institution.
- Client libraries should link the LELICO library system to their own library websites to ensure wider access of library services to their clientele.

As the consortium develops, it may become necessary to amend and adjust the proposed functions, features, management structure and guidelines. This process should proceed in an open and consultative manner and involve all member libraries.

#### **6.7 Adapting the INNOPAC library system to the specific requirements of a small multi-type consortium in a developing country**

The INNOPAC library system has been rated highly in both GAELIC and FRELICO, which are larger than LELICO. As this will be a small consortium in a developing country, there are some issues that need special consideration to enable the effective operation of a common library system. These relate to management of the server, funding and partnerships with bigger neighboring consortia. Most important, a special effort will have to be made to ensure that the benefits of such a system are not only felt by member libraries, but by the entire nation.

If it is implemented correctly, the INNOPAC library system should provide a solution to some of LELICO's long-standing problems, primarily its inability to access and share the resources of its member libraries. The INNOPAC library system has performed well in consortia and libraries in the Southern African region, and LELICO can build on their

experiences. However, because of the high costs of implementation, the consortium will need to solicit seed funding. Both GAELIC and FRELICO received external funding to implement the system, but their own institutions now take care of the running costs.

Before LELICO implements the INNOPAC library system, it should establish and secure reliable funding sources to sustain both the installation and maintenance of the system. Philanthropic organisations such as the Andrew Mellon Foundation, the Carnegie Corporation, and the Bill and Melinda Gates Foundation should be approached for funding. Most important for the long-term success and sustainability of the system, however, is the continued financial support by LELICO members.

The proposed common library system will significantly enhance resource sharing among LELICO member libraries and improve library and information services to the country as a whole. The common library system should assist the Lesotho National Library Services to extend library and information services to regions beyond the capital city of Maseru. Membership of LELICO by libraries in remote regions should benefit the people of Lesotho through improved access to information. One application, for example, could be wider access to the distance education programmes of the Lesotho College of Education and the Lesotho Distance Teaching Centre.

## **6.8 An INNOPAC-based ‘virtual consortium’ for the Southern African region**

Wider transnational benefits of the INNOPAC library system could be achieved through a co-ordination of all INNOPAC-based consortia and libraries in the Southern African

region. There are a number of libraries and consortia that have already implemented the system, and there may still be more that will consider using the same system. Although this is not the primary focus of this study, it is reasonable to speculate on its broader implications and possibilities. While the details remain to be fleshed out, there are some clear advantages of and challenges for an INNOPAC-based super or ‘virtual consortium’.

The advantages would include:

- improving collegial relations and information sharing among information professionals in the region;
- identifying common problems and possible solutions regarding library cooperation in general, and INNOPAC in particular;
- experimenting with models of service that would improve library and information services to the end-users in the region as a whole. In the LELICO case, for example, the aim is to extend benefits to ordinary library users in remote rural areas, and not just to users of consortium member libraries;
- strengthening educational initiatives in the region by extending the reach of distance education programmes such as those offered by the University of South Africa.

The challenges would include:

- sourcing funds to set up and sustain such an ambitious collaborative project. Different budgets may result in different levels of financial commitment. On the

- other hand, international funding agencies may see more reason to support initiatives with a wider reach and with stronger political and economic benefits;
- coping with different versions of the system used in the region that could affect collaborative training efforts, as it was found in the case of GAELIC
  - dealing with alternative server models used by consortia in the region. Some of these challenges are discussed in sections 4.7 and 5.4;
  - finding a solution to the different languages in countries in the region. English is an official language for the majority of countries in the Southern African region, but there are others that use Portuguese, French, and indigenous languages. Regional co-operation would have to be inclusive, sensitive, and responsive to the language needs of all members, and existing region-wide initiatives may be a guide here.

In the end, the decisive success factors may be the availability of funding and the political will to cooperate, but it is very likely that wider regional cooperation among consortia and libraries using the INNOPAC library system would widen access to information and contribute to the growth and development of the Southern African region.

## **6.8 Conclusion**

This chapter proposed a model for LELICO common library system. It recommends that the common library system be managed centrally by one of the member libraries. It highlights the main functions and features of the proposed system. A steering committee responsible for the system is recommended as an addition structure that should be

incorporated into the existing management structure of LELICO. The chapter also shows how members should operate to ensure efficient implementation and utilisation of the system, highlighting roles that should be played by LELICO, the host library and client libraries. It concludes by showing how the INNOPAC library system should be adapted to the specific requirements of a small consortium in a developing country.

## CHAPTER SEVEN

### CONCLUSION

#### 7.1 Introduction

The study sought to investigate the performance of the INNOPAC library system in GAELIC, FRELICO and three selected libraries in other Southern African countries. The aim of evaluating the system was to establish its value and applicability to small consortia in developing countries. In particular, the study wished to draw lessons for the Lesotho Library Consortium, which is a small multi-type consortium planning to implement a common library system.

In attempting to understand pertinent issues relating to the INNOPAC library system and its performance, especially in a consortium setting, the study posed this research question: **What are the successes and limitations of the INNOPAC library system for selected consortia and libraries in the Southern African region, and how can these guide the implementation and management of this system in the Lesotho Library Consortium?** To answer this question, the following sub-questions were asked:

- Which criteria are required for a comprehensive evaluation of the INNOPAC library system in consortia and libraries in the Southern African region?
- What are the successes and limitations of the INNOPAC library system in selected consortia and libraries in the Southern African region?
- What benefits and impact have the INNOPAC library system had on selected consortia and libraries?

- What are the costs versus benefits of the system?
- What are the system requirements of LELICO members and which system management model would work best for it?
- Given its special challenges, what critical lessons can LELICO learn from selected consortia and libraries in the Southern African region in order to guide the implementation and management of the INNOPAC library system?

## 7.2 Findings

The findings of the study are based on data collected through subject literature, questionnaires, interviews, documents and site visits.

- **Sub-question 1 – Which criteria are required for a comprehensive evaluation of the INNOPAC library system in consortia and libraries in the Southern African region?**

The following were identified as criteria for a comprehensive evaluation of the INNOPAC library system (see Chapter 2):

- **Functionality** refers to “a set of properties residing inherently in the technology under consideration” (Joint, 2006: 394). It is also about what the product can do for a user. Properties that describe objective functionality of the INNOPAC library system were identified in this study as availability, accessibility, reliability, security, ability to integrate, ability to customise, and upgradeability.



- **Usability** refers to the features that assist a user of the system to navigate the system. This property is considered crucial because the success of the system lies in its effective use and the way it is perceived by users.
- **Costs** involved in the implementation of a system incurred include installation, equipment, training, support and staffing costs;
- **Support** refers to both internal and external assistance that users consult when using the system. In addition to systems personnel, many library systems incorporate manuals that can be referred to when a problem arises.
- **Training** incorporates both initial and ongoing training. It is regarded as an important element as it affects how effectively the user will utilise the system.
- **The vendor's** relationship with the library tends to influence the way in which the system is accepted and used, as well as its long-term maintenance. This relationship is affected by the vendor's stability, influence on user groups, and response to requests, remote support, availability, and frequency of updates and feedback from other customers.
- **Management** of the server is an important additional aspect that has to be examined for a small multi-type consortium like LELICO.

Criteria of particular importance to any consortium or library in the Southern Africa region are costs, support and management. Most libraries in the region are poorly funded and the implementation of a system like INNOPAC would have to be carefully considered. Effective local system support would be required as there is no INNOPAC regional office. Management of the system is of great value

especially for libraries that have no prior system management experience as is the case with the majority of LELICO members.

- **Sub-question 2 – What are the successes and limitations of the INNOPAC library system in selected consortia and libraries in the Southern African region?**

The study found that the INNOPAC library system meets the needs of GAELIC, FRELICO and the three selected libraries in other Southern African countries. The basic modules of Acquisitions, Cataloguing, Circulation, Management Information, OPAC, and Serials are fully operational and performing well. In addition to these modules, individual libraries have installed other modules according to their own requirements. The study established that the system is performing well on all the functionalities of availability, accessibility, reliability, and security.

The INNOPAC library system has proved to be easy to use. Error and help messages are helpful, although they required prior knowledge of the system for better understanding. A novice user would therefore find them difficult to understand. Supporting materials on the management and use of the system in the form of manuals, training and updates are all effective. The management of the system was rated positively, which can be attributed to availability and helpfulness of system managers in these libraries.

However, queries that require vendor input took relatively long as system managers had to wait for a response from the vendor which is based in the USA. Innovative Interface Inc. (vendor) was highly rated in terms of accessibility, availability and helpfulness. The response rate in attending to queries is relatively low. A contributing factor is the different time zones between the USA and the Southern African region, which result in time delays between online reporting and feedback from the vendor.

The system is expensive to install and training and updates fees are high. Funding is of particular concern for libraries in developing countries. High costs could inhibit libraries from purchasing additional modules and requesting additional training, thus limiting the potential benefit that could be derived from the system.

- **Sub-question 3 – What benefits and impact have the INNOPAC library system had on selected consortia?**

The INNOPAC library system has had a positive impact on libraries included in the study. Impact indicators relating to productivity, customer service and cost-saving were found to be positive (see Table 26). Access to other members' holdings was the only component that the system failed to address. The reason is that member libraries have their own individual servers for data storage, and therefore consortia members cannot see the holdings of other members directly unless they go through their websites.

The generally positive impact of the INNOPAC library system on consortia members is evident in the derived benefits. The system is effective and reliable; it also offers a

wide range of modules like the Electronic Resource Management (ERM), Course Reserve and Management Information that seem to meet the needs of members. Another positive factor is that its user base is large, and is increasing both regionally and internationally. System users are therefore able to network and consult each other when they encounter problems.

- **Sub-question 4 –What are the costs versus benefits of the system?**

The overall cost of the system is high. Table 28 shows that costs incurred by some GAELIC and FRELICO libraries range from R680 000 to R4 121 293. These include installation, running, equipment, training and staffing costs. Most libraries implemented the system using grants from the Andrew Mellon Foundation, which covered both the installation and initial training costs. Running costs of the system, which include annual licences, upgrades, additional training and equipment, have to be met by individual libraries. However, the study established that the benefits derived from the system outweigh the costs incurred. The system is effective and reliable; it is responsive to developments taking place in the library and information world, and strives to satisfy member libraries' needs through regular updates. It offers a wide range of functions, which makes it one of the most efficient library systems in the world. It has a growing user base, especially in library consortia, and libraries are able to network and assist each other when they face similar problems.

- **Sub-question 5 – What are the system requirements of LELICO members and which system management model would work best for it?**

The study found that most LELICO members are not yet automated, which impacts on the effective processing of library material. The study also found that even those libraries that are computerised still have problems with their systems (see Table 34). This situation greatly compromises the main goal of the consortium, which is to share resources.

Lesotho Library Consortium is interested in acquiring a common library system for its members and has made this a priority among its activities (see Table 35). Members have demonstrated a need for the basic library modules as a first step – these include Acquisitions, Cataloguing, Circulations, Management Information, OPAC, and Serials. Additional modules could be installed at a later stage, as the need arises. It is important to have a system with easy to use and effective functionalities. Training, system and vendor support are all important elements of the system. Managing the system centrally is preferred. Centralisation is necessary because of inadequate computer skills among members and a lack of experience in managing automated library systems. Cost-saving is another reason why members are opting for a central model.

A common library system for LELICO will have financial implications for both the consortium and member institutions. Table 40 shows that most LELICO members are poorly funded, and their budgets do not meet their current needs.

Thus, the additional expense of purchasing a library system will have to be carefully considered. Purchasing the system collectively as a consortium, with funds sought externally, is a viable option. However, the running costs will remain the responsibility of members. LELICO and its member institutions will need to intensify their fund raising efforts to ensure the sustainability of the system.

Library consortia usually adopt either a central or a decentralised server model for managing their systems. Both GAELIC and FRELICO use decentralised models where each library has its own server where all data is stored and managed. SEALS uses a central server, where all records of the four member libraries are stored. Table 32 shows that there are more advantages for a smaller consortium to have a central server than many servers. Members can access all records via a central server, which leads to smoother resource sharing practices such as inter-library loans. Another positive attribute of a central server is the ability simultaneously to upgrade all members' systems. This leads to reduced costs for installing, running, and managing the system. The advantages of decentralised servers are greater autonomy in managing the system, and strengthened relations with IT departments of home institutions. Despite these benefits, a central server has more benefits and is more effective in addressing the common goals of library consortia. Therefore, a central server is recommended for LELICO.

- **Sub-question 6 – Given its special challenges, what critical lessons can LELICO learn from selected consortia and libraries in the Southern African**

**region to guide the implementation and management of the INNOPAC library system?**

- Common library systems operate within the context of library consortia. Therefore, effective management of library consortia can have a positive effect on the management of a common library system. The study found that the factors needed to contribute to successful management of the selected library consortia are common purpose, governance, technology and funding. Common purpose is the main reason for forming a library consortium. Despite various priorities, policies and clientele, libraries have a common goal of providing their users with relevant information within the shortest possible time. They find it necessary to find common ground to achieve this goal by optimising the synergy of a consortium. For example, in the case of GAELIC and FRELICO, members had a common goal of acquiring a suitable library system that could meet the needs of their libraries.
- Good governance is vital for the survival of a library consortium as both short and long term plans need to be properly executed. Governing bodies of the consortia studied included advisory boards, executive committees and working groups. While advisory boards oversee the overall running of a consortium through policies and regulations, executive committees attend to the day-to-day management of a consortium. Working groups work for specific programmes such as bibliographic services, human development, information and communication technology and resource sharing.

Representation from all member libraries in all governing bodies is necessary to ensure that the needs of all members are met.

- Technology is important for increased productivity and effective communication. It contributes positively towards the resource sharing activities of a consortium by enabling members and end-users speedy access to materials. Where technology is still lagging behind, as in the case of LELICO, resource sharing is limited. Most members have to rely on manual systems to process library resources, which makes library operations less effective.
- Funding is important for the sustainability of a consortium. Continuing funding mechanisms are necessary for the general running of a consortium and for specific projects such as the acquisition of a system. The two consortia under study were externally funded for the installation of the system, but had to find ways of paying for the running expenses themselves. To ensure long-term sustainability of a consortium, participating institutions must be committed to the attainment of its objectives. In addition, members should engage actively in fund raising activities, either individually or collectively.
- The INNOPAC library system is costly and its implementation requires concrete funding plans. Costs of the system include installation, data conversion, maintenance, annual licences, equipment, staffing and support. Both GAELIC and FRELICO received external funding to implement the system, but their institutions have since taken care of the running costs. Before LELICO implements the INNOPAC library system, it should secure reliable



funding sources to sustain both the installation and maintenance of the system. Philanthropic organisations such as the Andrew Mellon Foundation, Carnegie Corporation and the Bill and Melinda Gates Foundation, which have assisted libraries in the past, should be approached.

- Political support for management bodies of member institutions is critical for the effective implementation of the system. Libraries belong to organisations whose governing bodies should accept the idea of a common library system so that they can provide the necessary support. It is important to have regular communication with these bodies from the outset and during the running of the project so that they are kept abreast of developments. LELICO members should emphasise the value of a common library system as a cost-effective solution for improving services to member institutions and to the country. The value of a common library system should be reinforced among staff members who will be the day-to-day users of the system, providing assistance to the end users in libraries.
- It is important to have clear terms of reference for all role-players who will be involved in the implementation of the common library system. As a system that will affect many institutions, there will be different opinions on how to carry out some operations. A consortium should have clear ground rules for all individuals and groups who will be involved in the project. Such rules should encompass the nature of involvement, duration, deliverables and rewarding mechanisms.

- Representivity is vital in all the dealings of the consortium, including the acquisition of the system. This ensures that everybody participates in all aspects. Bigger and better-resourced libraries that tend to take a lead in consortia matters should be sensitive to the needs of smaller libraries and ensure that they are involved. A lack of involvement of smaller libraries can create mistrust and harm the success of the consortium in the long run, as the smaller libraries could feel excluded and decide to look for alternative ways of meeting their needs outside of the consortium.
- A central server model provides an effective solution to many library consortium problems. It is a cheaper option for installation, maintenance and equipment purchases. It also enables multiple stations to upgrade from a single point. Most important, members are able to access each others' holdings directly, and this makes the sharing of resources much easier. Having many servers, as in the case of GAELIC and FRELICO, is expensive and has a negative impact on training and support.
- It is necessary to establish networks with libraries that have already implemented the INNOPAC library system as they can provide valuable advice on the various stages of system implementation. Peer-to-peer learning is helpful, especially in GAELIC where installation was done in phases. Libraries that had installed the system during the first phase acquired the necessary experience for guiding other libraries that installed the system at a later stage.

LELICO has the advantage of being an immediate geographical neighbour to two consortia (FRELICO and GAELIC) and it could learn from their experiences without much difficulty. Having a neighbouring library using the same system is beneficial for problem-solving and sharing of expertise. BCA and NUST both have neighbours using the same system. The University of Botswana has been using the system since 1999 and has the experience to share with the BCA library. Similarly, NUST has the advantage of the University of Zimbabwe as a neighbour, which started using the INNOPAC library system in 2000.

- Technical expertise is advisable, especially when undertaking a project such as the implementation of a system in a multi-library setting. Involvement of the IT personnel of participating institutions should take place in the early stages of the project so that they can advise on pertinent issues, such as equipment and types of networks required. Libraries that are already automated will require additional assistance to convert their data to the INNOPAC library system, and may need expertise in dealing with this process. External and internal expertise should be sought whenever necessary.
- **Main question – What have been the successes and limitations of the INNOPAC library system for selected consortia and libraries in the Southern African region, and how can these guide the implementation and management of this system in the Lesotho Library Consortium?**

**Successes:**

- **High performance** – The study revealed that the INNOPAC library system is highly valued among GAELIC, FRELICO and the three selected libraries in Southern Africa. The system is performing well in all modules used. The properties of functionality, usability, support and training, and system management were rated positively. The system's good performance is attributed to its versatile functions, which are responsive to the current needs of libraries. It is an effective solution to many of the libraries' operational problems.
- **High impact** – The INNOPAC library system is highly regarded for its positive impact on the libraries. It has increased productivity, improved customer care, enhanced the use of technology and enabled better decision making.

**Limitations:**

- **Low Response rate of the vendor** – The system vendor is slow to respond to queries.
- **Poor access to other members' holdings** -- The challenge that consortia members face is that of directly accessing other members' holdings. As indicated in section 5.4, part of the solution is to have a central server where the data of all members can be accessed.
- **High costs of the system** – Costs of implementing the system are high. This necessitates seeking external funding to implement the system. Costs relating to training and updates of the system are also high.

**Lessons:**

It is evident from this study that small library consortia like LELICO can benefit greatly by adopting the INNOPAC library system. Consortia and libraries in the Southern African region that already have common library systems have experienced the kinds of challenges facing LELICO. Therefore, LELICO can learn from their experiences and facilitate the implementation process according to its own requirements.

As highlighted in section 6.2, lessons learned related to:

- System management model;
- Host institution;
- Communication; and
- Training.

**Implementation Strategy:**

The challenge for LELICO is to apply these experiences and lessons regarding the INNOPAC library system in an effective implementation management strategy. The key elements of the strategy would be:

- clear descriptions of the functions and features of the system;
- management structure required for the system's implementation and management;
- identification of the host institution for the central server;
- the establishment of partnerships with experienced and larger consortia like GAELIC. This could facilitate sharing information and expertise, and enable informed decisions on various issues pertaining to the implementation of the system.

- securing external funding to implement the system, while the running costs are kept to the minimum. LELICO could continue to raise funds to minimise running costs incurred by member libraries.
- lobbying for the establishment of an *Innovative* regional office, would lead to better support and quick response to queries.

### **7.3 Recommendations**

The following recommendations are based on the findings of the study:

- LELICO should opt for the INNOPAC library system as its common system. The findings reveal that LELICO members need a common library system to run their business effectively, and the INNOPAC library system appears to be the answer. The INNOPAC library system has performed well in the two South African consortia, and in the three selected libraries in other Southern African countries.
- LELICO should undertake a feasibility study before implementing the system. Such a study will shed light on whether or not the project is achievable. It will identify cost-effective solutions, and establish the kind of hardware, software, equipment and staffing needed to undertake a project of this nature. A feasibility study will also assess the readiness of LELICO member libraries to participate in the project. A feasibility study will entail consultations with the staff and authorities of participating institutions. The vendor of the system will also be required to give presentations and provide a quotation for the implementation of the system.

- LELICO should implement the INNOPAC library system in phases, preferably in three phases. The first phase should involve the three largest academic libraries in Lesotho, namely NUL, LCE, and LP libraries. Two of these (NUL and LCE) are already automated, so they already possess the necessary computer experience, and they are better-resourced to initiate the process. Participation in subsequent phases will depend on the readiness of the remaining libraries, and the recommendations of the INNOPAC Steering Committee. Implementing the system in phases will provide a learning opportunity for LELICO – the experience gained from the first phase will guide automation projects for the rest of the member libraries.
- LELICO should actively engage in a search for external funding. This will require identifying potential donors such as the Andrew Mellon Foundation, Carnegie Foundation, or the Bill and Melinda Gates Foundation, which have already assisted libraries in developing countries. LELICO would also need to prepare a detailed grant proposal showing all activities and the corresponding funding needed. It is also worth finding out how much individual institutions would be prepared to spend on initial and running costs of the system.
- The running costs of the system should be apportioned on the basis of the level of use by individual libraries. Smaller libraries will probably use the system less than bigger libraries and would therefore be expected to pay less. All records pertaining to the use of the system would be kept by the host institution and this would provide information on how much each institution should pay.

- LELICO should establish links with other regional consortia, especially those that have implemented the INNOPAC library system. As the study showed, GAELIC, FRELICO and SEALS are South African consortia using the system. To implement a central server model, which this study advocates, it might be necessary to visit SEALS and learn first-hand how the model operates. It is recommended also that links be established with libraries in countries such as Botswana, Namibia and Zimbabwe that are already using the INNOPAC library system. Participation in the INNOPAC User Group: Southern Africa conferences would also be beneficial.
- LELICO should strengthen its existing resource sharing programmes. Beside training and workshops, there is not much else being done to share resources. Other activities such as inter-library loans, the compilation of a national bibliography, and staff exchange programmes are some of the areas that LELICO could explore. Acquiring a common library system will contribute positively to achieving some of these resource sharing activities.
- GAELIC and FRELICO should consider the possibility of having a shared central server for their members. The study shows that this model has more benefits than each library having its own server.
- The vendor of the system, Innovative Interface Inc, should consider establishing a regional office, preferably in South Africa where it has several clients. The major problem identified in this study was the vendor's response rate in answering queries submitted by libraries. Given the current rate at which libraries in the Southern African region are opting for the INNOPAC library system, a regional



office would not only address the response rate problem, but would keep the vendor in touch with library developments taking place in this region.

#### **7.4 Suggestions for future research**

The study has identified the following as areas that need further research:

- The effectiveness of single-type library consortia versus multi-type consortia is one area for research. Most consortia, including those studied were academic library consortia. While there are some multi-type library consortia in other parts of the world, Africa as a late comer in consortium development, does not have many consortia consisting of various types of libraries. It would be beneficial to investigate the effectiveness of both types, especially in Africa where there might be special factors that influence the operation of both types of consortia. This kind of investigation would be relevant for LELICO, which is a small, multi-type library consortium consisting of academic, national, public and special libraries.
- Comparative analysis of system management models within consortia is required to establish comparative strengths and weaknesses. This study established that a central server model is more effective in addressing most consortium needs, but a more detailed investigation is needed to establish the economics of both models and to flesh out the implications of each model.
- The effectiveness of consortia governing bodies should be studied. These include advisory boards, executive committees, working groups and steering committees. It is necessary to explore the type and number of governing

structures needed for the effective running of a consortium, especially given the fact that members of these structures operate according to the obligations and time limits of their own employers.

- The impact of geographical distance on the operation of a consortium is another area that is worth investigating. For example, the study revealed that geographically remote members of GAELIC do not participate fully in the business of the consortium because they are far from Johannesburg and Pretoria where the majority of members are located, and where most meeting and training sessions are held. Identification of these obstacles and challenges is needed.
- Performance evaluation of the INNOPAC library system by the end-user is required. Research studies on this system, including the current one, have concentrated mainly on the perspectives of library professionals. The end-users are the ultimate beneficiaries of any library system, and therefore an evaluation of the system from their perspective will shed light on its effective use.
- A national impact assessment study of the INNOPAC library system is required in countries where it has been implemented which would look at the way in which improved access facilitated by the system affects national development and empowerment of citizens. It would be crucial to assess how the system contributes towards the attainment of national and global initiatives such as the Millennium Development Goals (MDGs), and the Education for All (EFA) programmes.

- A wider regional cooperation among consortia and libraries using the INNOPAC library system in the Southern African region should be considered. Such collaboration would contribute positively towards enhanced access to information and it would support other development initiatives in the region.
- Finally, it is recommended that research should be undertaken to find out why LELICO members and other libraries in Lesotho are not participating in resource sharing activities. The study found that resource sharing is almost non-existent among libraries in Lesotho. It is worth identifying the barriers that prevent libraries from sharing resources and to find mechanisms for improving the situation. Nonetheless, the proposed common library system will play a significant role in enhancing resource sharing among LELICO members.

## **7.5 Conclusion**

This study revealed that the INNOPAC library system is performing well in GAELIC, FRELICO and the three selected libraries in other Southern African countries. Good performance is attributed to staying abreast of developments in the library world, and offering a variety of functions that satisfy library needs. The system is easy to use and is well supported by training, manuals and upgrades. However, the study shows that the vendor response rate needs to be improved for the system to operate optimally. The study also revealed that the system has had a generally positive impact on the consortia investigated. It has contributed to increased productivity, better customer service, better

use of technology and better decision-making within the consortia. However, direct access to other members' holdings is still not possible. This could be solved by having a central server that allows members to store their records, part of which could then be accessible to other members.

The study found that the INNOPAC library system is expensive in terms of implementation and maintenance. Most libraries that have implemented the system had to find external funding to take care of initial costs. Despite the high costs, the system is highly effective and worth the expense. A cheaper alternative is to use a central server model that involves storage of data belonging to many libraries, and therefore enabling access to the holdings of all member libraries. This model caters for simultaneous upgrades and requires fewer management staff.

The study shows that the majority of the Lesotho Library Consortium's members are not automated. Even those that are automated have problems with their library systems. Members have expressed a need for a common library system to be implemented in all member libraries. A model for a LELICO common library system was proposed in this study. The model identifies the INNOPAC library system as a common library system for LELICO because of its good performance in the Southern African region. However, the limited budgets of LELICO libraries could be a serious challenge for the implementation and management of the system. External funding is recommended as an option for financing the initial costs of installing the system. The study recommends that LELICO's library system should be centrally managed because of the positive attributes of this

model. It further recommends a modified management structure for LELICO that would include a steering committee responsible for the implementation of the INNOPAC library system.