

Full Length Research Paper

Library and information science (LIS) education and training in Kenya: Emergence, evolution, challenges and opportunities

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The purpose of this study is to examine the reasons for the development of Library and Information Science (LIS) education in Kenya, challenges that LIS education has been facing and suggestions for solutions to these challenges are given. The methodology used was literature survey, questionnaires to founding members of staff of the oldest schools of LIS education, authors' experiences with and exposures of LIS education. Analysis of the data on the questionnaire was done using content analysis. The findings revealed that there were challenges in LIS education in Kenya: inadequate teaching staff, shortage of teaching materials and infrastructure among others. The solutions to these challenges were suggested. These findings are of importance to LIS educators and students in Kenya since LIS education is hardly three decades in Kenya and therefore it is still evolving.

Key words: Library, information science, education, training curriculum, challenges in information science education, universities, college and information science education.

INTRODUCTION

Library and Information Science education (LIS) in Kenya has witnessed the expansion and growth in the number of students admitted, programmes, mode of study and curriculum diversification since the first LIS school opened its door in 1984. This has been in tandem with changes and development that has taken place in the global society and the Kenyan society in particular.

Most LIS schools are within higher education institutions. Education in Kenya has seen unprecedented growth both in the number of institutions from 7 to 22 public Universities in 2011 to 2014 (Rukwaro and Otike, 2014). Public diploma colleges have also increased to 13. Reasons for this growth is the government's efforts to achieve Vision 2030 development blueprint of

“transforming Kenya into a newly industrializing middle income country” (GOK, 2007).

This vision is anchored in three pillars: economic, social and political. Information is key to the achievement of Vision 2030. It is against this backdrop that LIS education has been expanding and developing to provide manpower for the Kenyan market of information provision and knowledge management.

Purpose of the study

The purpose of this study is to give an overview of the:

- a. Drive that led to the establishment of LIS education

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and training in Kenya.

b. Growth, expansion and changes in LIS education and training in Kenya, that involves:

- i. Number of programmes and students
 - ii. Mode of study, e.g. school based, regular, part-time
 - iii. Curriculum change
 - iv. Models of the programmes: specialization, integrated, coursework, thesis/project and thesis only
- c. Challenges experienced in LIS training and education
- d. Opportunities in LIS education and training
- e. Suggestions on the way forward for LIS education and training

LITERATURE REVIEW

Background to LIS education

LIS education in Kenya: An overview

LIS education in Kenya started after independence. During colonial days and with the introduction of western civilization libraries developed to cater for the activities of the colony. Special libraries were set up to assist in the exploitation of Kenya's economical potential. Among the earliest libraries to be put up in 1907 were Department of Agriculture Library and Veterinary Research Laboratories Library to provide the white settlers with information on farming in the highlands of Kenya. East African Agricultural Research Organization Library (now Kenya Agricultural Research Institute) was established in 1927. Others that were established were Department of Mines and Geology Library in 1933 to facilitate mineral exploration. Public Libraries were mainly for European and Asian communities due to racial discrimination that existed then and secondly, the Africans were largely illiterate noting that writing and reading was introduced by colonialists. Africans therefore could not make effective use of the library.

The first public library was set up in 1903 by Asian Philanthropists to meet the needs of Asians in Mombasa (Ng'ang'a, 1979) and in 1942 Desai Memorial Library was set up in Nairobi. In 1931, Macmillan Memorial Library was set up in Nairobi for Europeans. The first public library for Africans was established in 1947 in Nairobi by the East Africans literature Bureau. The Bureau eventually with the coming of independence and the ever increasing population, gave way to the Kenya National Libraries Board, which started managing Public Library Services in Kenya in 1967. Academic libraries before independence existed in Royal Technical College (now University of Nairobi) which was established in 1951, Kenya Polytechnic (now Technical University of Kenya), which was established in 1961 and Egerton College (now Egerton University) which was established in 1940.

All these special, public and academic libraries were manned by expatriates and "to independence Kenya had only one qualified indigenous librarian, John Ndegwa,

who qualified from Britain. He was trained specifically for the Bureau libraries," (Otike, 2004). With the establishment of special, public and academic libraries, pressure for libraries was mounting especially with the coming of independence and the return of expatriates to their mother country because they feared for their security in the newly independent Kenya. LIS schools started with the aim of training librarians for the newly independent state and East Africa School of Librarianship- Makerere, Uganda was the first LIS School in the East Africa Region (Otike, 2004). The first LIS school was started in Kenyatta University in 1984 although prior to this, Kenya used to train on diploma and certificate courses in some of the following institutions as listed in Appendix 1.

Growth and development of LIS schools

Library and information science education is undergoing rapid growth and development in Kenya. Initially Kenya had only two universities; Moi and Kenyatta offering degree and post graduate degree programmes by 2007, and these were public universities. Today there are nine public universities and four private universities offering degree programmes (Appendix 2).

This growth may have initially been market driven, but with time, it is necessary to heed the warning that "growth is not necessarily justified by market needs" (Shogwe and Ocholla, 2012; Kavulya, 2007). These authors opined that there is a need to put in measures that will ensure the employability of LIS graduates. Kavulya, 2007 pointed out that the current LIS programmes in the country do not address the current job market requirements due to inadequate teaching resources at LIS training; lack of adequate ICT content in the courses; inadequate length of courses; courses that are outright irrelevant to the job market and inadequate industrial attachment for LIS students.

Further and more recent study by Amunga and Khayesi (2012) seem to indicate that nothing has really changed. The study results indicated that there is a shortage of staff teaching in LIS schools, lack of information resources and other teaching/ learning facilities, low completion rates and wastage, and low funding of LIS schools. Amunga and Khayesi (2012), suggest that "since more and more employers are moving towards knowledge management (KM), it may be advisable for LIS schools to integrate KM in the curricula". Shogwe and Ocholla (2012), states that there is the believe that the bottom line is to develop a broad-based LIS curriculum, such as the one instituted at Moi University in Kenya, which teaches the blend of traditional Librarianship, Archives and Records Management, Publishing and Information Technology. Shogwe and Ocholla (2012), further recommended that students should be allowed to gain job-related experiences during formal education through more practical work (example, experiential

learning, field assignments and service learning).

On practical experience, Wairach and Ameen (2012) aver that the duration of the internship should be increased from 8 to 16 weeks to better relate the theoretical and practical skills in the curriculum. And there must be at least 50% faculty competent practitioners to blend the experience of academics and librarians practically.

New programme names and focus areas

LIS programmes in Kenya vary from one university to the other. The changes are mainly a reflection of the combination with other information related disciplines. Variations in degree titles abound in undergraduate and postgraduate programmes: Bachelors in Information Sciences and Knowledge Management (BISKM); Bachelor of Library and Information Science (BLIS or BLINS) depending on the University. In addition, there are Bachelors of Science (Information Science) BSCIS; Masters of Library and Information Science (MLIS); Master of philosophy (MPHIL); Masters in Knowledge Management (MKM). These variations in programme titles at the same level were reported by Amunga and Khayesi (2012) as a source of concern to students undertaking these courses since they felt that this created a lot of confusion and challenges when they presented their certificates to prospective employers. Of greater concern in our opinion, is the content and relevance of the curriculum and how well it is taught to produce employable graduates since there are no institutionalized and recognized quality assurance procedures for LIS educational programmes. Ocholla and Bothma (2007), stated that most departments changed their names to the Department of Library and Information Science/Studies, Departments of Information and Communication Studies at the University of Namibia, Department of Information and Knowledge Management at the University of Johannesburg in order to reflect incorporation and merging of different disciplines into the LIS programs as per the global trends.

Models of study and qualifications

Various models of study for LIS qualification are pursued. Ocholla and Bothma (2007), aver that South Africa has two dominant learning models. The undergraduate model and the post graduate diploma model. The undergraduate model takes three to four years of study. The broad field of library and information science topics are combined with a number of compulsory and/or elective courses from the disciplines. There may be one year honours degree, during which students specialize in topics in library and information science. In the postgraduate model, students are expected to obtain any general

degree as an admission requirement. The postgraduate diploma is followed by a Masters degree. There are obvious disadvantages and advantages for the student pursuing either model. Kenya, unlike South Africa has a four year undergraduate course. However, those who have a diploma in LIS are allowed to join the undergraduate course in second year, a policy that is commonly referred to as "credit transfer". For a student to qualify for a masters degree in LIS, the student ought to have an undergraduate degree in the same field. The masters degree is in mainly two models: Course work and thesis/project; or thesis only. Doctoral degree programmes are only open to students who have attained a masters degree. The doctorate programme like the masters degree is by coursework and thesis; or thesis only. Most LIS schools integrate information related fields such as Publishing and Media, Archives and Record Management, Information Technology, Knowledge Management within a holistic LIS qualification. However, there are others who offer these fields as autonomous such that an undergraduate may specialize in any field among the following Publishing and Media, Archives and Record Management, Information Technology, Knowledge Management and Library Studies. Other fields that are finding their niche in the LIS curriculum, whether integrated or autonomous are "leadership" and "financial management".

An undergraduate qualification will dictate the masters degree that the student will pursue so that a student may eventually qualify with a Masters in Publishing and Media/Masters in Knowledge Management/Masters in Information Technology and so on. Initially LIS schools as mentioned elsewhere in this study were started to equip the graduates with skills and competences for library workers. But the LIS educators have realized the need of tapping into emergent information markets such as publishing, media, record, management, information technology, and leadership among others. This trend is worldwide for Rauhala (2011) in her study on graduates of Tampere, Finland states that "graduates in information science find job opportunities from a variety of sectors: research, education, management, customer service, marketing and sales, administration, communication and media...graduates have to find out where their professional passion lies...choices they make during their studies do define their future professional path." These sentiments are echoed by Hashim and Mokhtar (2012) averring that "librarians and information professionals must be someone with multi-skills, multi tasking abilities and competent in areas of work such as management, communication, language, public relation and others".

Challenges in LIS education

A number of studies on different aspects of LIS education have been done in Africa and specifically Kenya. Kavulya

(2007), observed in his study that LIS training programmes “do not sufficiently address current job market requirements due to, inadequate teaching resources at LIS training, lack of inadequate ICT content in the courses, inadequate length of courses, courses that are outright irrelevant to the job market and inadequate industrial attachments for LIS students”. He recommended review and redesigning of their courses in line with the job market.

Amunga and Khayesi (2012), stated that LIS education faces various challenges such as variations in the names of the programme, which students find confusing and at times present a challenge to prospective employers, shortage of teaching staff in LIS school, curricula which are not in tandem with the job market, lack of information resources and other teaching/learning facilities, low funding of LIS schools and departments and low completion rates and wastage. The authors recommended curriculum review to realign it with job markets and collaboration among stakeholders to find lasting solutions to challenges.

Shogwe and Ocholla (2012) point out that [PLIS curriculum should be developed to meet market needs. They propose the development of: a broad-based LIS curriculum such as the one instituted at Moi University in Kenya, which teaches “a blend of traditional Librarianship, Archives and Record Management, Publishing and IT”. They also recommend that students should secure skills and be market ready through practical work, internship and voluntary work. Stakeholders should be involved in LIS education and refresher courses should be available to LIS workers. Universities should keep track of their alumni in order to know the achievements of LIS graduates and challenges in the profession on a regular basis. Ocholla and Bothma (2007), state that due to the decline of employment in libraries owing to poor funding, curriculum should be broadly based on information disciplines in order to target emerging markets. Technology infrastructures in LIS schools vary from one country to the other as a result of low funding among other issues. Edegbo (2011) stated that there was no uniform or harmonized curriculum for Nigeria university library and information science schools and each operated its own curriculum and that there is inadequate funding, staff and expertise, unreliable power supply and curriculum that do not include the job market needs.

Solutions to challenges, way forward and opportunities

Amunga and Khayesi (2012), advocate for more funds for LIS schools in Kenya to ensure investment in adequate and qualified human resource, infrastructure and activities in the training of LIS graduates. Stakeholders should collaborate and network in order to come up with lasting solutions for LIS schools and stakeholders in the

region should hold forums to share experiences and benchmark. Shogwe and Ochollo (2012) recommend “a strong professional association that could promote and safeguard the interests of its members and ensure quality control”. Edegbo (2011), recommends that the curricula should be overhauled drastically to be in step with the market requirements. Ocholla (2008), states that LIS institutions should collaborate and partner in a country, internationally and regionally in teaching, research, student/staff exchanges, conferences, workshops, curriculum development, publication, research, supervision and examination. LIS market requires comprehensive knowledge and skills in areas such as information literacy, information and knowledge management, information technology, information searching and retrieval, research, communication skills, customer care, the ability to work both independently and in a team and positive work related attitudes. The inclusion of indigenous knowledge in the LIS curricula is also recommended. Another recommendation by Ocholla (2008) is continuing education for faculty members and LIS workers / professionals. Tumuhairwe (2013) recommends the need to revise and improve curricula for library schools towards inclusion of indigenous knowledge and multicultural issues.

Kaijberg (2008) recommends that it is urgent for LIS educators to deliberately address the development and curriculum coverage of knowledge management as an emerging and frequently commercially oriented field.

METHODOLOGY

The methodology used was literature survey, questionnaire to founding members of staff of 4 of the oldest schools of LIS education and training (Moi, KU, Egerton, Kisii), authors' experiences with and exposures to LIS education and training in Kenya. Analysis of the data on the questionnaire will be done using content analysis. The data will be classified and summarized around specific themes. The demand for access to higher education in Kenya has resulted to different modes of study. This demand is due to the need to raise ones employability and promotion status, which an added qualification spells. Innovative ways to use limited resources (manpower, time, facilities among others) has led to different modes of study. This has also been a boom to universities who are able to get the much needed income from the students. LIS programme from certificate to doctorate are available in the following modes of study:

1. Weekend classes
2. Evening classes
3. Regular day classes
4. School based classes which run in the months of April, August, and December In most universities, while the normal academic year is two semesters, these universities now have trimester mode, which accelerates the learning period so that students graduate within a shorter period of time. Most Kenya universities are engaging in all these mode of study. The modes of study in most universities are contact. Distance learning is negligible. There are advantages and disadvantages in both. The most obvious disadvantage in both is that there are no quality controls. Graduates are continually qualified in the job market and

for promotion without scrutiny of how much knowledge or even industrial experience they went through. It is noteworthy that every university draws its curriculum autonomously.

Kavulya (2007), opined about this when he stated that "current LIS programmes in the country do not address the current job market requirements due to inadequate teaching resources at LIS training, lack of adequate ICT content in the courses, adequate length of courses, courses that are outright irrelevant to the job market and inadequate industrial attachment for LIS students". Amunga and Khayesi (2012), seem to indicate that the situation is still pathetic for their study results, indicated that there was shortage of staff teaching in LIS schools, lack of information resources and other teaching/learning facilities, low completion rates and wastage and low funding of LIS schools. This situation is not unique to Kenya. Shogwe and Ocholla (2012) in their study on South Africa recommend that students be allowed to gain job related experience during formal education through more practical work. Wairrach and Ameen (2012) on their study on LIS graduate employability in Pakistan specify that internship should be increased from 8 weeks to 16 weeks to better relate the theoretical and practical skills in the curriculum.

RESULTS

Analysis of questionnaires on LIS education to founding members of staff in Moi University, Kenyatta University and Egerton University, Kisii University did not return the questionnaire. Analysis of the questionnaire was done using content analysis.

Findings of the three universities

Drive that led to the establishment of LIS education and training

LIS education started in 1984, 1988, 2003 in Kenyatta University (KU), Moi University (MU) and Egerton University (EU) respectively. The need that drove to the development and implementation of LIS training was to train personnel to manage information in various organizations due to the shortage of staff experienced. KU, whose core competency by 1984 was to produce teachers in the nation endeavored to produce teacher librarians to man primary teacher training colleges and teacher resource centres. The teacher librarians would also teach librarianship. This was a Teachers' Service Commission requirement and policy issue. It should be noted that hitherto, no local institution was offering degree courses in LIS.

Growth, expansion and changes in LIS education and training

Number of programmes

The programme that MU started in 1988 was Bachelor of Science (Information Science), Bsc (IS) with a class of 45 students. Initially, this programme took three years, but it

later changed to four years as a result of changes in the Kenyan education system. Later, Postgraduate programmes at Masters and PhD levels started. The Masters programmes that were started were:

1. Master of Science in Information Technology.
2. Master of Library and Information Studies.
3. Master of Science in Publishing Studies.
4. Master of Science in Records and Archives Management.
5. Master of Science in Information Science.

Other programmes that were started, although at diploma level were:

1. Diploma in Information Technology.
2. Diploma in Journalism and Mass Media.
3. Diploma in Publishing.

Egerton University started Bachelors of Library and Information Studies, a four year programme with a class of 19 students. Later, a diploma programme in Library and Information Studies was started. A Masters' in Library and Information Science was mounted in 2014. Kenyatta University started with the following Masters programmes that Bachelor of Education graduates were eligible to apply for:

1. Master of Education (Teacher Development Centre (TDC)).
2. Master of Education (Primary Teachers (PT)).
3. Master of Education (Library Science).

Later, Kenyatta University mounted Bachelor of Library and Information Studies. The reason given for mounting the programmes in the three universities was to meet the market needs for personnel with different levels of skills and competencies.

Duration of the programmes

LIS programmes at Diploma and Masters levels take two years for a student to complete while PhD takes three years. Bachelor in LIS takes four years, but those who join the programme with a Diploma in LIS take three years due to credit transfer policy in Kenyan universities.

Admission requirements

For a student to be admitted for a Diploma in LIS, a mean grade of C in KCSE is required, or a certificate in LIS. For Bachelors in LIS, a student should have a C+ or a diploma in related field. For admission for a Masters programme, one needs to have a Bachelors in related field.

Mode of study

The modes of study are:

1. Regular
2. Part-time.
3. School-based.
4. Distance and open learning (Digital) (In KU only).

For regular, part-time and school based, students have direct or face to face contact with the lecturers. The students have to attend classes, which mean that only a specific number ought to be admitted due to challenges of adequate resources and infrastructure. Secondly, students have to travel to and from classes which is a big challenge for students to balance their various roles of being workers, parents and students at the same time. However, this mode of study gives both lecturer and students instant feedback during teaching or learning.

Curriculum change

The curriculum is reviewed every four years for Kenyatta University, Moi University and Egerton University. The curriculum has changed because course content has changed in some courses and also the course title and coding. The reason for these changes is a need to meet the market needs. The main addition to the curriculum has been incorporating of ICT units or courses. Domain areas in LIS such as cataloguing and classification have remained, although emerging trends in these areas have been incorporated.

Models of the programmes

The model of study in Bachelors programmes in Moi University and Kenyatta University is common courses and specialization. The common courses equip students with the knowledge and skills to work in any information field. Specialization is an added advantage of gaining special skills. In Egerton University, for all bachelor programmes, students do the same courses. Masters and doctorate courses in Moi University are by course work and thesis. In Kenyatta University these courses are by coursework and thesis/project; or thesis only. In Egerton University, the Masters programme is by coursework and thesis.

Graduates per year

Moi University graduates 350 undergraduates, 30 postgraduates and 22 diploma students. In Kenyatta University, there are 50 undergraduates and 8 postgraduates graduating annually. Egerton University graduates about 20 undergraduates.

Challenges experienced in LIS education

The challenges experienced in the three universities are:

1. Inadequate teaching staff. Due to this, universities over-rely on part-time lecturers.
2. Shortage of teaching materials and infrastructure.

Solutions to the challenges experienced

Solutions to challenges experienced are:

1. Employment of more teaching staff.
2. Increased funding for university education.
3. There is a need to consider coming up with a quality programme.

Conclusion

From the literature review and the findings on the three universities LIS schools in Kenya have variations, but they have common trends in their growth and development. These common trends and development are: curriculum reviews and revisions in order to gear their graduates to employability, application of ICTs, increasing numbers of students joining LIS programs, change in programme titles, inclusiveness of topics or courses in Knowledge Management among others and offering of LIS programmes in more and more universities. The market for LIS graduate has expanded and now employment is available in libraries (school, public, special, academic), information centres both private and public, information consultancies, information and knowledge management officers in various organizations. Records and archives management officers, system administrators, among others. Consistent demand for graduates means consistent demand for quality programmes and fine tuning of the curriculum to meet the market needs. There is an urgent need for quality control checks since with rapid expansion of LIS education, the standards of teaching and learning are bound to be lowered by cutting of corners, which means that the graduates will not be fit in with the market demands.

Conflict of Interests

The authors have not declared any conflict of interests.

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Appendix 1.

Colleges offering diploma in library and information science
Siaya Institute of Technology, Siaya
Regions group international college, Sotik Branch, Sotik
Eldoret Aviation College, Eldoret
Bumbe Technical Training Institute, Busia
Eldoret Professional Accountancy & Computer College, Eldoret
Kericho Technical Institute, Kericho
Eldoret Splendid College of Computer Training, Eldoret
Kisumu Polytechnic, Kisumu
Kenya Institute of Applied Sciences, Eldoret
Kenya Institute of Applied Sciences, Eldoret
Eldoret College of Professional studies, Eldoret Rift Valley Institute, Nakuru Sigalagala Technical Institute
Universities offering diploma in library and information Science
Technical University of Kenya, Nairobi
Kisii University College main campus, Kisii
Kenyatta University, Nairobi
Kenya Methodist University, Meru
Kisii University, Kisii
University of Kabianga
Egerton University
Laikipia University
Moi University

Appendix 2. Universities that offer LIS Education (Bachelors and Post Graduate)

University	Level of study
Egerton University	Bachelors, Masters
Catholic University of East Africa	Bachelors
Kisii University	Bachelors, Masters, PhD
Technical University of Kenya	Bachelors
University of Nairobi	Masters
Inoorero	Bachelors
Mt. Kenya University	Bachelors
Kenya Methodist University	Bachelors
University of Kabianga	Bachelors
Laikipia University	Bachelors
Moi University	Bachelors, Masters & PhD
Kenyatta University	Bachelors, Masters