An analysis of the Library and Information Science (LIS) job market in South Africa

Mzwandile M. Shongwe
And
Dennis N. Ocholla

Department of Information Studies
University of Zululand
mshongwe@pan.uzulu.ac.za
docholla@pan.uzulu.ac.za

Abstract

This paper explores and discusses the LIS job market in South Africa through an analytical literature review and the content analysis of recent longitudinal newspaper scanning of LIS job advertisements in the country. We have noted that the LIS job market in South Africa has grown over the past three years. The study has revealed that the public sector is the main employer of LIS professionals. We have also noted that new job titles and functions relevant to the information/ knowledge economy are growing. Furthermore, IT has become an important skill for LIS professionals to possess. We conclude that the study could inform curriculum review in LIS Schools in Africa and recommend that LIS Schools explore and exploit more new directions and ideas as they prepare students for the library and general information service sector. The paper is divided into four parts: part one provides an overview of LIS education in Africa; part two reflects on the LIS job market in Africa; part three reflects on job trends in South Africa; and part four discusses the challenges and opportunities that can be found in the LIS job market. Suggestions for further exploration are provided.

Key words: adverts, content analysis, newspaper scanning, library, LIS,

1. Introduction

Market forces increasingly determine the nature and type of products and services that are delivered to consumers across all sectors. We believe that the Library and Information Science (LIS) job market is no different, as it largely determines the type of skills, knowledge and abilities that the LIS student must possess and project after leaving LIS Higher Education Institutions (HEIs). The LIS job market in Africa, as reported by several studies over the last 12 years (Lutwana & Kigongo-Bukenya, 2004; Ocholla, 2000, 2001, 2005; Snyman, 2000; Minishi-Majanja & Ocholla, 2004; Ocholla & Bothma, 2007, among others) is changing rapidly, with the emerging professions taking a significant portion of the market in countries where the job market increasingly relies on non-library employers**.** The aim of this study therefore was to analyze LIS

job market trends in South Africa through a review of literature and a newspaper survey of LIS job advertisements. It sought to answer the following questions: 1. What are the latest trends in the LIS job market in South Africa? 2. What are the challenges and opportunities that exist in the LIS job market?

The following sections will discuss an overview of LIS education in Africa; reflections on the LIS job market in Africa; reflections on job trends in South Africa; and lastly discuss the challenges and opportunities.

2. Overview of LIS education in Africa

LIS Schools in Africa emerged on the continent in 1938 in South Africa, with rapid expansion to other parts of Africa from 1960 onwards when African countries began to gain colonial independence. By the 1980s, there were five main LIS Schools based in Ghana, Nigeria, Senegal and Uganda, and 18 in South Africa. Currently, there are 60 LIS Schools in Africa (see Ocholla, 2008). Although present LIS education in Africa does not exclusively target the training and education of librarians, original LIS Schools' major focus in their education and training was librarianship. A significant growth in the number of LIS schools has been noted in Anglophone Africa, slight growth in Francophone and Arabic speaking countries, and unknown growth in Lucophone countries (e.g. Angola, Cape Verde, Guinea Bissau, Mozambique and Sao Tome). Among the Anglophone countries, notable growth of LIS Schools has been noted in Kenya, Nigeria, and Uganda. In Southern Africa, at least one major LIS School can be found in each of the countries of Botswana, Malawi, Namibia, Zambia and Zimbabwe. The remaining countries have either one LIS School or none at all (e.g. Lesotho and Swaziland). Most LIS Schools are located within HEIs or universities.

3. An overview of the LIS job market in Africa

Several studies on LIS training needs or human resource development and curriculum development have been documented. Among these studies, follow-up or tracer studies have enjoyed popularity for LIS training needs/ assessment analysis in popular journals (see Rugambwa, 1998; Quarmby, Willet & Wood, 1994; Schumm, 1994; Loughridge, Oates & Speight, 1996; Marcum, 1997; Alemna, 1991). Over the last 25 years, follow-up studies of graduates for curriculum review have been conducted by Anadiran (1988) in Nigeria; Alemna (1991, 1999) and Kisiedu (1993) in Ghana; Rosenberg (1989, 1994) in Kenya; Van Aswegen (1997), Ocholla (2001) and Stilwell (2004) in South Africa: Rugambwa (1998) in Ethiopia; Aina and Moahi (1999) in Botswana; and Lutwana and Kigongo – Bukenya (2004) in Uganda. In addition to follow–up studies, the assessment of LIS related job advertisements in newspapers has also received some attention in the past (e.g. Rosenberg 1989) and more recently as well (Snyman, 2000; Ocholla, 2001, 2005). Interestingly, despite different time spans and geographical locations as well as the different national and international focus of the studies, libraries have consistently turned out to be the main employer of LIS graduates. This is rather paradoxical given the insignificant growth and development of libraries in Africa. Speculatively, this may suggest that: very few qualified librarians are produced by LIS schools; libraries are

overstaffed; graduates find work in the emerging information market; graduates do not get employment; or a combination of one or more of these factors. There are cases reported where libraries in Africa, particularly academic libraries, are indeed overstaffed, as noted by Rosenberg (1997), but this situation does not seem to apply to most libraries (see Ocholla, 2009), particularly public libraries (see Issak, 2000) and school libraries which are largely non-existent in the region (Ikoja-Odongo, 2009). For example, approximately 20% of South Africa's schools were observed to have school libraries in 2009 (see Ocholla, 2009). We believe that libraries alone have failed to provide job opportunities for LIS graduates as hardly any new libraries are being built; those that exist are unable to offer decent employment remuneration packages or salaries due to lack of funds; there is a shortage of appropriate posts or vacancies to accommodate college/ university graduates; and library management structures do not prioritise library development.

Aside from libraries, other information-related job opportunities are increasingly growing. The public and private sectors increasingly recognise the need for proper information services, which in turn demands knowledgeable and skilled information service providers. This recognition was noted in the late eighties and early nineties by Rosenberg (1989, 1994) in studies focusing on the LIS market in Kenya for the development of a new School of Information Sciences at Moi University, where she found that 60% of the information-related positions in Kenya were available in the then emerging market. The same can be observed in subsequent studies by Snyman (2000) and Ocholla (2001, 2005) focusing on the South African LIS market. Snyman reported on the employment market for information professionals in South Africa based on the assessment of job advertisements from three national weekly newspapers with the highest circulation in South Africa (The Sunday Times, City Press and Rapport) between January and August 2000. A total of 250 information-related job advertisements were identified. Of these, 114 positions were in the emerging market under categories such as information systems specialists, information and knowledge managers, information analysts, research workers, consultants, records managers, and trainers. Snyman's findings are supported by Ocholla (2001, 2005), Lutwana and Kigongo-Bukenya (2004), Stilwell (2004) and Shongwe and Ocholla (2011), to name a few, in demonstrating that libraries in the public sector still offer most information-related job opportunities, and also that non-traditional LIS jobs in the emerging market are on the rise, a trend that we believe is ongoing. We cannot easily quantify with accuracy the nature and number of information-related jobs in the public and corporate sectors in Africa because such data may be currently unavailable. We do, however, believe that job advertisements in the public domain provide a significant insight into the rapidly diversifying and expanding LIS market on the basis of which LIS teaching and training needs, curricula, levels of education, and market trends in Africa can be determined.

The traditional LIS job market in Africa is still confined within its few libraries. However, the demand for LIS graduates has rapidly extended to other sectors in the government, parastatals (semi-autonomous government institutions), the corporate sector, NGOs and in civil society in areas such as archives and records centers, government departments and ministries, research institutions, the book trade and publishing industry, LIS education and training, and mass media. The emerging LIS markets have changed the LIS curriculum in some schools, pushing them to become more inclusive and diversified and to produce graduates that are largely multi-skilled.

Such LIS Schools, often with a combination of courses in Information Technology (IT)and Systems, Archives and Records Management, and Publishing and Media Studies, can be found in Moi University (Kenya), the University of Pretoria (South Africa), University of Botswana (Botswana), University of Ibadan (Nigeria), and the University of Namibia (Namibia), to name a few. Although a broad-based LIS curriculum may be expensive, multi-skilled LIS graduates produced from a harmonized or balanced curricula are likely to pave the way for future information service providers or librarians in Africa, and such an approach to LIS education is indeed economical and cost effective.

4. A case study of the LIS job market in South Africa

4.1. Overview

A series of analyses of the LIS job market in South Africa based on scanning the advertisements of popular South African weekly newspapers, is currently in the works**.** Over the last 12 years, similar surveys in South Africa have been done by Ocholla (2001 and 2005) and Snyman (2000). The purpose of these surveys is to determine contemporary market trends in library and information services in South Africa in order to be able to advise LIS education and training and curriculum and career development in the sector. Their objectives are to determine current LIS employers, their job requirements and specifications, the kinds of knowledge, skills and abilities that are required in the LIS job market, and how the information obtained can be used to review the curriculum, advise students on their career path, and advise employers on LIS job trends and issues. Ocholla's (2005) study captured and analysed 97 LIS job adverts from mid-2004 to mid-2005. Here we reflect on the 2009 - 2011 survey.

4.2. Methodology

A longitudinal, mixed methodology approach (Bban as cited in Ngulube, 2010) was used to collect and analyze data for this study. Content analysis was adopted to scan and analyze LIS job advertisements in The Sunday Times and the Mail and Guardian weekly newspapers over a three year period (from January 2009 to December 2011). Content analysis has been used previously in similar studies by Reeves and Hanh (2010), Adkins (2005), and Clyde (2002), among others. This period was chosen arbitrarily. For each edition of the weekly newspapers, the careers' sections were used to scan for LIS related job adverts. These two newspapers were selected because of their popularity and widespread readership in South Africa - the Mail and Guardian has a readership of about 233 000 weekly while The Sunday Times has a readership of about 3.24 million people weekly (http://www.southafrica.info/ess_info/sa_glance/constitution/news.htm) and is believed to be the most popular weekly newspaper in South Africa. We believe that most job adverts in the public domain appear in The Sunday Times. A total of 490 LIS jobs were advertised in the two newspapers over the three year period. The following criteria were used to select advertisements for analysis: 1. If the job title contained the words 'information', 'knowledge', 'librarian',

'archivist' or 'archives', and 'records', and 2. If the job advertisement required a LIS related qualification. Core IT adverts that required core IT qualifications (Computer Science, Information Systems, etc.) and skills (software development, information analysis, database design, etc.) were omitted from the study.

The job title, job sector, educational requirements, salary structure, years of experience, and skills, knowledge and abilities for each job were recorded in an Excel Spreadsheet. Qualitative and quantitative methods were used to analyze the data. Descriptive statistics (Hair et al. 2006) were used to analyze quantitative data and content analysis (Elo & Kyngas, 2008; Cukier et al., 2009) was used to analyze qualitative data.

4.3. Results

The results are captured in sections 4.3.1. to 4.3.6.

4.3.1. The total number of jobs and categories advertised in The Sunday Times and the Mail & Guardian, 2009 - 2011

In total, 490 job adverts were identified in the Mail and Guardian (M&G) and The Sunday Times newspapers from January 2009 to December 2011 (54 job advertisements in the M&G and 436 in The Sunday Times).

Content analysis was then used to group the adverts into five broad categories. These were: academic, information, library, knowledge management (KM), and records management (RM) and archives.Job adverts with the word 'library' or 'librarian' fell in the library category. Academic job adverts for professors, associate professors, senior lecturers, lecturers, junior lecturers and graduate assistants, were placed in the academic category, but only if they were advertised by LIS schools. The information category contained job adverts with the word 'information' except if it was a core IT advert (e.g. information technology manager). The knowledge management category contained adverts with the words 'knowledge' and 'knowledge management', while the records management and archives category contained job adverts with the words 'records', 'documents', 'records/document management' and 'archives'.

The library category advertised the highest number of jobs (257), followed by the information (108 adverts), knowledge management (61), records management and archives (50), and academic (14) categories. There is an insignificant growth observed in the number of LIS jobs advertised in the M&G while growth in the Sunday Times from 2009 to 2011 was 68.4%, supporting the selection of this newspaper for the ongoing study (see Table 1).

Table 1: Total number of job adverts and categories advertised in the M&G and The Sunday Times

Year	Job category						Total No of Jobs
	Library	Academic	Information	KM	RM	Archives	
2009	61(9)	5(0)	31(0)	14(7)	6(0)	0(0)	117(16)
2010	79(10)	5(0)	37(4)	16(4)	9(1)	2(0)	148(19)
2011	89(9)	3(1)	32(4)	16(4)	27(1)	4(0)	171(19)
Total 2009-2011	**229(28)**	**13(1)**	**100(8)**	**46(15)**	**42(2)**	**6(0)**	**436(54)**
Total/category	**257**	**14**	**108**	**61**	**44**	**6**	**490**

The figures in brackets indicate the job adverts found in the M&G while the ones outside the brackets were advertised in The Sunday Times

4.3.2. Advertised job titles

A number of job titles exist in the LIS profession. As discussed previously, the advertisements were divided into five broad categories: library, academic, information, knowledge management, records management and archives. In all four categories, the titles can be divided into senior or executive, middle management and junior job titles. Senior titles include Director, Deputy Director, Executive Director or Manager, Head, Senior Lecturer, and Chief Information Officer (CIO).

15 senior job titles were advertised in the KM category. Seven titles were for Directors, four for Deputy Directors, two for Senior Managers, and two for Executive Managers. The most popular senior titles observed in the KM categories were KM Director, Assistant Director KM, Executive Director KM and information resource center, and Executive Manager KM.

In the information category, 19 senior job titles were advertised. 11 were for CIO, four for Deputy Directors, three for Directors, and one for a Senior Manager. Four senior job titles were advertised in the records and archives management category. Three were for Deputy Director and one for a Senior Manager. In the library category, there were 12 senior job titles. Eight were for Directors, three for Deputy Directors, and one for an Executive Director. There was only one senior job title (Senior Lecturer) in the academic category. Overall, there were 51 senior positions advertised during the three year period. The rest of the adverts (439) were in the middle and junior levels.

A number of new titles, such as E-repository Administrator, Research Repository and Digital Scholarship Services, Electronic Resources Librarian, Library Web Services Developer, Information Architect, Library Technology Application Specialist, Web Information Manager and Enterprise Information Manager, could be found in the job adverts.

The list of job titles mentioned in this study is not exhaustive. Many LIS job titles were found in the newspapers. We chose to include only those that appeared more than twice. We noticed that some job titles were named after specific jobs, for example Tourism Research and Information Manager, Scientific Manager: Resource Quality information, and Manager: Management Information and Budgeting and Planning. Such job requirements had LIS characteristics in that they contained the word 'information' but did not require a LIS qualification, and they were therefore omitted.

4.3.3. Sectors that advertised LIS jobs

Different sectors of the South African economy advertised LIS jobs. The major sectors were the public and private sectors and non-governmental organizations (NGOs). In the context of the study, the public sector included government departments at national, provincial and local levels, parastatals, academic institutions, and foreign embassies in South Africa. The results indicate that the public sector was the main advertiser of LIS jobs over the three year period. The jobs were mainly advertised by academic institutions, national, provincial and local government departments, parastatals, and foreign embassies. Academic institutions and the national government took the lead. It would appear that there are limited LIS job opportunities in the private and NGO sectors. The reason could be that they do not advertise their jobs in the public domain, i.e. in newspapers.

There were 451 jobs advertised by the public sector, 27 by NGOs, and only 12 by private organizations. The results are presented in Table 2.

Table 2: Sectors in which LIS jobs are advertised

News paper	Sector								total
	Public						NGO	Private	
	Academic	Foreign Embassies	National	Provincial	Local	parastatal			
ST	202	1	171	15	8	18	11	10	436
M&G	25	0	9	1	1	0	16	2	54

4.3.4. Qualifications

Qualifications are divided into three: Senior, medium and junior positions

Senior positions

For most senior positions (Director, Deputy Director, CIO, Executive Manager) the educational qualification requirements were a Bachelors, an Honours, a Master's, an MBA or a PhD. For some library posts, the advertisements required a non-LIS undergraduate qualification and a LIS postgraduate qualification, i.e. a postgraduate Diploma, Honours or Master's/PhD in LIS. For senior positions in knowledge management, the requirements were postgraduate studies in LIS, Knowledge Management, Information Management and Information Technology. Other adverts required educational qualifications that were not LIS related, such as qualifications in Marketing and Economics For academic positions, a PhD in LIS was the minimum educational requirement, while for senior positions in the information category, the educational requirements were mostly IT related (Computer Science, Information Systems and Information Management, and MBA). The position of Chief Information Officer required a strong IT background and less of a LIS background. For senior positions in records management and archives, the educational requirements were postgraduate studies in Records Management and Archival Sciences respectively.

Knowledge, skills and abilities

The knowledge, skills and abilities differed depending on the category, for example the knowledge and skills required in the information category differed from those in the library category, etc. There are general skills, knowledge and abilities that were required across all five categories (academic, information, library, KM, and records and archives). All senior positions required in-depth ICT knowledge and skills (ICT principles, ICT infrastructure, software implementation, ICT policies, electronic records management systems, management information systems), communication skills (written and verbal), people management skills, leadership skills, interpersonal skills, problem solving and analytical skills, financial management skills, project management skills, change management skills, time management skills, and administrative skills. Government senior positions required mostly in-depth knowledge of government policies and procedures. Senior positions in the private sector required mostly in-depth business knowledge. All senior positions required the following abilities from the applicant: team player, credibility, confidence, diplomacy, honesty, and integrity.

Middle management and junior positions

The academic qualifications required for middle and junior positions also differed according to category. In general LIS jobs required a high school certificate, a national certificate, diploma, Bachelor's and/or Honours or Master's degree in LIS, Information Science, Information Management, Records Management, Archives and Records Management, and Knowledge Management. Other adverts had popular LIS titles but required non-LIS qualifications in Statistics, Economics, Computer Science, Information Systems, Political Science, Marketing, and general Social Science. This was widely observed in job titles in the information and knowledge management categories. In the library category, some job adverts required a non-LIS first degree and a postgraduate diploma or postgraduate certificate in LIS.

Knowledge, skills and abilities

Knowledge, skills and abilities also differed according to category in the adverts seeking people for middle management and junior positions. However, there are skills that were essential in all the advertised positions. These include IT skills (MS Suite, Internet, webpage design and management, multimedia, and databases), communication, customer focus, research, and writing skills. Specific skills in the different categories were also identified.

In the library category, the knowledge and skills that were identified include collection development, cataloguing and classification, electronic resources, library systems, teaching or training, report writing, abstracting and indexing, AACR2, LCSH, MARC21, Dspace, digital asset management system(s), LC rule interpretation, metadata schema, SABINET, OCLC, integrated library systems, USMARC, bibliographic formats, UNICON, SACat, WorldCat, OPAC, RDA, library web 2.0, millennium system, and INNOPAC.

In the academic category, research and teaching skills are essential, while in the knowledge management category, IT skills seem to be very important. IT knowledge and skills such as web development (HTML, PHP, JavaScript), databases (mySQL), data warehousing and multimedia were highly sought after. In the information category, IT skills also appear to be essential. Almost all the jobs required advanced IT skills such as Microsoft Solutions, management information systems, and special software skills such as SAP.

The records management and archives' advertisements requested in-depth knowledge and skills in electronic records management, electronic content management systems, and records' retention schedules. All four categories required communication skills and interpersonal, leadership, analytical and financial management skills. They required the same abilities from the applicants, such as flexibility, work under pressure, passion, customer focus, and honesty.

4.3.5. Salary Structures

We assume that salaries play a vital role in the recruitment and retainment of professionals in any sector. Salaries are usually used to entice professionals to the profession. We therefore analyzed the top 10 earners in the LIS market. In the senior management category, the highest paid was a Deputy Director with an annual package of R1 025 133. The lowest paid was an Assistant Director with an annual package of R192 539. In the middle and junior categories, the highest paid was a Program Officer with an annual package of R 531 790.00, while the lowest paid was a Librarian with an annual package of R 94 326. Tables 3 and 4 indicate the top 10 earners in both categories.

Table 3: Top 10 senior earners

Senior Positions Top 10 Earners

Job Title	Salary Package p.a.(1USD=7.7 ZAR)	Sector
Deputy Director: Information Society and Research	R 1 025 133.00	govt: national
Director: Information Services	R 976 317.00	govt: national
CIO	R 905 538.00	govt: national
CIO: Director Research and KM	R 830 502.00	govt: national
CIO	R 790 953.00	govt: national
Content and Information Services Manager	R 690 535.00	govt: national
Manager KM; Senior Manager: Library Services	R 685 200.00	govt: provincial
Director: M-IKS; Director Info. Management	R 652 572.00	govt: provincial
Director: KM	R 615 633.00	govt: national
Chief Knowledge Specialist	R 450 000.00	NGO

Lowest Paid Senior Position

Assistant Director: Cataloguing	R 192 539.00	govt: national

Table 4: Top 10 middle and junior position earners

Middle and Junior Positions: top 10 earners	Salary Package p.a.(USD=7.7 ZAR)	Sector
Program Officer: KM and Leadership Development	R 531 790.00	NGO
Information Architect	R 528 333.00	govt: national
Research and Information Manager	R 395 131.00	NGO
Researcher: Information Services	R 379 437.00	academic
Regional Information Support	R 378 456.00	govt: national
Archivist: Multimedia Productions Unit	R 351 142.00	govt: national
Librarian: Cataloguing and Metadata	R 277 768.00	govt: national
Assistant Manager: Info. Management/Records	R 250 035.00	govt: national
Librarian	R 240 318.00	parastatal
Assistant Manager: Cataloguing	R 240 292.00	govt: national

Lowest Paid Junior Position

Librarian	R 94 326	govt: national

The results indicate that the government is paying LIS professional very well. We don't know whether that is because private sector job adverts did not indicate salary structures or it is because the government advertised a lot of jobs. It is surprising to notice that the government pays well.

4.3.6. Experience

Experience is considered to be an important factor in recruitment. Most of the adverts indicated the minimum and maximum number of years of experience that an applicant must have. All senior positions required five years of experience or more. Middle management and junior positions required a minimum of no experience to four years experience.

5. Discussion

The results from the South African case study indicate that there has been a steady growth in the LIS job market over the past three years (133 adverts in 2009, 167 in 2010, and 190 in 2011). The number of advertised LIS jobs grew each year by approximately 16 percent. This might have been caused by the growth of the South African economy and/or the recognition of the role of the information/ knowledge economy by organisations. Several job titles in the broader arena of information services or the emerging market that feature in the results also featured in previous studies (Snyman, 2000; Ocholla, 2001). However, it would appear that new LIS job titles are also starting to emerge. These new titles contain strong ICT elements and show the influence that ICT is starting to have on the LIS job market. It also suggests a growing need for critical information and knowledge management skills in the public and private sectors.

Librarianship-related job titles remain eminent (257 over three years). The increase of library-based titles could be attributed to the growth of the knowledge economy and the gradual growth and development of librarianship in South Africa. Different sectors are employing librarians to increase the level of access to knowledge. Generally, there has been a significant increase in the number of job titles in the emerging IS sector. We noticed a significant increase in senior information and knowledge management positions than was reported in the previous studies. Correspondingly, while there are jobs that specify information-related qualification requirements, we also noted the gradual increase in information-related jobs that are open to all degree holders, including those without LIS degrees or qualifications. Qualifications for most jobs (over 95%) only required a three year degree in LIS or a postgraduate diploma in LIS. Employers therefore do not appear to care whether the duration of an LIS degree is three or more years. This is a pattern that may not be replicated in other African countries where postgraduate qualifications are prestigious and significant in the competition for LIS jobs, particularly senior positions. Academic libraries also normally prefer their personnel to have postgraduate qualifications.

The public sector, specifically academic institutions and government departments, were identified as the main advertisers of LIS jobs in South Africa. Together they advertised 450 jobs over the three year period, which is 92% of the LIS adverts. We assume therefore that the public sector is the main employer of LIS professionals in South Africa. These findings are consistent with the results of Reeves and Hahn's (2010) and Shongwe and Ocholla's (2011) studies who found that the government is the major employer of LIS professional. The LIS profession is not considered to be a high paying profession, but it has to be said that it is not a low paying profession either. Salaries for LIS professionals have increased over the years, a trend that is attributed to regular salary increases by at least 6% each year in the public sector in South Africa. South African salaries also compare favourably with overseas salaries (Reeves & Hahn, 2010).

The knowledge and skills required by LIS professionals are changing. IT seems to be the cross-cutting skill required in today's LIS job market as more and more information access and services are becoming ICT or e-access and e-service dependant. Most job descriptions emphasised management and ICT knowledge. The degree to which the knowledge and skills that were required could be obtained through a well-designed learning programme varies. Some of the knowledge and skills could perhaps be obtained from other academic programmes that students may be encouraged to enrol for during the duration of their studies. Cataloguing and classification skills are still very important in the LIS profession. Apart from hard skills (technical skills), soft skills (people skills) are also still relevant.

Challenges and opportunities

Recent challenges and opportunities in LIS education, as discussed in studies that have focused on the LIS job market, include the growth of LIS schools, the review and revision of curricula, increased use of ICTs, decrease of students for librarianship, amalgamation and re-orientation, relocation of the academic administration of LIS schools, and expansion, name change and closure (see Ocholla, 2000, 2005, 2008; Minishi-Majanja, 2004; Stilwell, 2004; Lutwana & Kigongo – Bukenya, 2005; Raju, 2006; Aina, 2005; Ocholla & Bothma, 2007). Generally, there are several fundamental challenges that impact directly on the LIS job market. The first of these involves the development of a suitable LIS curriculum. Aina (2005), for example, complains about the inability of the LIS curriculum in Africa to respond to market needs. While recognizing that the LIS curriculum's orientation should focus on both 'traditional and 'emerging' markets, he also proposes 'information for rural development' as a third orientation. We 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 a blend of traditional librarianship, archives and records management, publishing, and IT. However, we also expect more specialisation where the market permits. The second challenge lies in work experience which allows students to secure skills and be market ready. Students should be allowed to gain job-related experiences during formal education through more practical work (e.g. experiential learning, field assignments and service learning) and internships and voluntary work, as this seems to be a major factor in securing jobs.

Third is the involvement of stakeholders or industry in LIS education and training. Stakeholders in LIS education include employers of LIS graduates from various sectors (libraries, the publishing industry and book trade, archives and records centres, civil society, the private sector, and municipal, local and national government), professional associations, LIS educators, the local community served by the graduate, and the graduate's affiliate institution. Informal and continuous education is the fourth challenge, as it refreshes LIS workers and helps them perform their jobs better, and boosts the image of the profession. LIS schools have a fundamental role to play in this area through the offer of short courses or 'summer schools'. Stakeholders may also find a lot that is beneficial in this domain. The fifth challenge involves research, such as follow up studies and staying in touch with alumni, which is necessary to keep track of LIS graduates' achievements and note challenges in the profession on a regular basis (see Shongwe and Ocholla 2011).

While a mouthpiece for the profession, such as a strong professional association that could promote and safeguard the interests of its members and ensure quality control, comes highly recommended, African countries have been unfortunate because their LIS professional associations are mostly weak. Even a relatively strong professional association in Africa, such as the Library and Information Association of South Africa (LIASA), has been unable to provide standards for LIS education (see Raju, 2006). Although LIS research in Africa is growing (Onyancha, 2007; Ocholla and Ocholla, 2007), relevant research and the wide dissemination of research results are lacking. For example, while we would have liked to review the job market in other parts of Africa, lack of country studies in the public domain proved to be a formidable obstacle. Regular tracer studies of graduates and newspaper scanning to assess national market trends are highly critical in this respect. Unfortunately, there does not seem to be any recent widely disseminated information on the current LIS market in most parts of Africa. Is the LIS market that predictable? Or do we have adequate student enrolments.

6.8. Conclusion and Recommendations

Many issues emerge from this paper in general and from the challenges and opportunities in particular. Information obtained from this ongoing South African case study seems to provide lessons for others in other regions with similar conditions. In South Africa, the public sector, in particular academic institutions and the central and provincial governments, dominate the LIS segment of the employment market in the country. It is evident that the LIS job market is growing in South Africa. This study confirms findings in other studies (see Shongwe & Ocholla, 2011) that emphasize sound education in management, information and communication technologies, information searching, analysis and synthesis, as well as the ability to perform practical work. Significantly, depending on the newspaper(s) scanned (e.g. local, regional, national or international), job advertisements have the potential to provide well-balanced data based on which decisions about manpower and curriculum review need to be made. However, the triangulation of related methods in a study, such as follow-up or tracer studies, reviewing the

existing curriculum, reviewing existing literature, consulting with colleagues (including the use of Delphi's technique), observing national and international trends, and organising focus groups for academic programme development, is also essential. We are already experiencing diverse information-based job opportunities in South Africa. The need for competitive information-oriented knowledge, skills and abilities in the IS market therefore calls for LIS schools to explore and exploit more new directions and ideas. We have to take our challenges and opportunities - beyond what is presented here – more seriously. The unknown growth of LIS education in some parts of Africa is a challenge that needs to be addressed; more forums in which the Arabic, French and Portuguese speaking African countries can converge, network and share knowledge should be encouraged.

7. References

Adkins, D. (2008). Changes in public library youth services: a content analysis of youth services job advertisements. *Public Library Quarterly*, 23(3/4), 59-73.

Aina,L.O. (2005). Towards an ideal library and information studies (LIS) curriculum for Africa: Some preliminary thoughts. *Education for Information,* 23(3), 166-185.

Aina L. O., & K. Moahi, K. (1999). Tracer study of the Botswana library schools graduates. *Education for Information,* 17, 215-245.

Alemna, A. A. (1999). Career development: follow-up studies of former graduate students of the Department of Library and Archival Studies University of Ghana, 1991/1992 to 1996/1997. *Education for Information,* 17, 35-42.

Alemna, A. A. (1991). Characteristics and careers of Past Postgraduate Diploma Students of the Department of Library and Information and Archival Studies of the University of Ghana: 1981/88 -- 1987/88. *African Journal of Library, Archives and Information Science,* 1, 45-50.

Anadiran, G. T. (1988). Reaction of the past Students to bachelor of Library Science Graduates of Ahmadu Bello University**,** Zaria, Nigeria. *Education for Information,* 6, 39-59.

Clyde, L.A. (2002). An instructional role for librarians: an overview and content analysis of job adverts. *Australian Academic & Research Libraries,* 33(3), 1-8.

Cukier, Wendy, Ngwenyama, Ojelanki, Bauer, Robert & Middleton, Catherine (2009). A critical analysis of media discourse on information technology: preliminary results of a proposed method for critical discourse analysis. *Information Systems Journal,*19, 175–196.

Elo, S. & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing,* 62(1), 107-115.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. (2006). *Multivariate Data Analysis (6thed).* New Jersey: Pearson Prentice Hall.

Ikoja-Odongo, R. (2009). School Libraries in Africa. In: Abdullahi, I. (ed.), Global Library and
Information Science: a handbook for Students and Educators, 91-107. München, K.G.
Saur Verlag. (IFLA Publications).

Issak, A. (2000). Public libraries in Africa: a report and annotated bibliography. Oxford:
International Network for the Availability of Scientific Publications (INASP). Retrieved
May 1, 2006 from
http://www.inasp.info/uploaded/documents/PublicLibrariesInAfrica.pdf

Kisiedu, C. O. (1993). A survey of Past Postgraduate Diploma students of the Department of
Library and Information and Archival Studies of the University of Ghana: 1970/71 -- 1980/81.
Journal of Information Science, 481-487.

Loughridge B., Oates J. S., & Speight, S. (1996). Career development: follow-up studies of
Sheffield MA graduate 1985/1986 to 1992/1993. *Journal of Librarianship and Information
Science,* 28(2), 105-117.

Lutwana Edith & Kigongo-Bukenya, I. M. N. (2004). A tracer study of the East African School
of Library and Information Science Graduates 1995- 1999 working in Uganda. *South African
Journal of Libraries and Information Science,* 70(2), 99-109.

Marcum, *D.B. (*1997). Transforming the curriculum; transforming the profession,
American Libraries, 27 (1), 35-37.

Minishi-Majanja & Ocholla, D. N. (2004). Auditing of Information and Communication
Technologies in Library and Information Science Education in Africa. *Education for
Information,* 22(2), 187-221.

Ngulube, P. (2010). Mapping mixed methods research in library and information science
journals in Sub-Saharan Africa. *The International Information & Library Review,* 42, 252-
261.

Ocholla, D. N. (2009). Introduction .In Abdullahi, I. (ed.), Global Library and Information
Science: a handbook for Students and Educators, 10-20. München, K.G. Saur Verlag.
(IFLA Publications)

Ocholla, D. N. (2000). Training for Library and Information Studies: a comparative overview of
LIS education in Africa. Education *for Information,* 18, 33-52.

Ocholla, D. N. (2001). Curriculum Response to a Changing National and International
Information Environment: Theoretical and Methodological Paradigms on Review and Revision.
Education for Information, 19(2), 143-168.

Ocholla, D.N. (2005). Job Opportunities for LIS Students in the workplace. A paper presented at
LIS Society Seminar, 11th August 2005. Retrieved January 12, 2012 from

http://www.lis.uzulu.ac.za/index.php/publications/47-publications-2005/58-staff-and-senior-students-publications-2005

Ocholla, Dennis N. & Ocholla Lyudmilla (2007). Research in Library and Information Science in South Africa: an analysis of journals research output from 1993-2006. *South African Journal of Libraries and Information Science,* 73(2), 109-118.

Ocholla, D. N. & Bothma, T. (2007). Trends, challenges and opportunities for LIS education and training in Eastern and Southern Africa. *New Library World, 108*(1/2), 55-78.

Ocholla, Dennis N. (2005) An Analysis of the Job Market in Library and Information Services in South Africa. Some Thoughts and Empirical Evidence: A paper presented at the 8th LIASA (RETIG) Annual Conference, Nelspruit, Mpumalanga, 25th-30th September.

Ocholla, D.N. (2008). The current status and challenges of collaboration in library and information studies (LIS) education and training in Africa. *New Library World,* 109(9/10), 466-479.

Onyancha, O. Bosire (2007). LIS research in Africa: how much is it worth?A citation analysis of the literature, 1986-2006. *South African Journal of Libraries and Information Science,* 73(2), 95-108.

Quarmby, K. L. Willet, P. & Wood, F.E. (1999). Follow-up study of graduates from the MSc. Information Management Programme at the University of Sheffield. *Journal of Information Science,* 25(2), 147-155.

Raju, R. (2006). Investigation into the acquisition of statutory status for South African LIS sector. *South African Journal of Libraries and Information Science,* 72(2), 131-140.

Reeves, R.K., & Hahn, T.B. (2010). Job Advertisement for Recent Graduates: Advising, Curriculum, and Job-seeking Implications. *Journal of Education for Library and Information Science,* 51(2), 103-118.

Rosenberg, D. (1994). Achieving the optimum curriculum. A survey of BSc in Information Sciences curriculum in the context of market needs in Kenya. Eldoret, Moi University -- Faculty of Information Science, (a research report), pp. 56.

Rosenberg, D. (1989). Survey of the Skills and Training Needs of Information Professionals in Kenya.Eldoret-Kenya, (a research report).

Rosenberg, D. (1997). University libraries in Africa: a review of their current state and future potential. London: International African Institute 1.

Rugambwa, I. (1998). Brief Communication: Regional Programme in Information Science in Sub-Saharan Africa: Follow-Up Studies of SISA M.Sc.I.S. Graduates1990/92 to 1994/96. *The International Information and library Review,* 30(3):267–274.

Schumm, R.W. (1994). Periodical Mutilation Revisited: A two-year Follow up Study. *The Serials Librarian* 25 (1/2): 201-205.

Shongwe, M. & Ocholla, Dennis N. **(**2011). A tracer study of LIS graduates at the University of Zululand, 2000 -2009. *Mousaion, 29(2),* 227-238.

Stilwell C. (2004). Alumni perceptions of a post graduate Information and Library Science Education programme at the University of Natal, South Africa. *South African Journal of Libraries and Information Science,* 70(1), 20-29.

Snyman, R. (2000). Employment market for information professionals in South Africa. A paper delivered at LIASA Conference, Durban, 26-29 October.

The Press in South Africa (n.d.). retrieved July 27, 2011 from
        http://www.southafrica.info/ess_info/sa_glance/constitution/news.htm

Van Aswegen,E.S. (1997). Menials or managers? A decade of library and information science education at cape Technikon. *South African Journal of Library and Information Science,* 65(2), 53-59.