A Tracer Study of Library and Information Science Graduates of Mzuzu University, Malawi

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Abstract

The main goal of this study was to trace Diploma and Bachelor of Library and Information (LIS) graduates from Mzuzu University (Mzuzu University), Malawi between 2005 and 2015. The study's intention was to ascertain the LIS graduates' career path, to find out the relevance of their educational attainment to their present careers, and to examine their perceptions about the LIS curriculum. A quantitative study through use of questionnaire, consisting of closed-ended and open-ended questions was executed to collect data. Data were analysed quantitatively. A total of 66 responses were received and used for the study. Most of the respondents were employed in the academic sector and held positions of librarians, information officers and lecturers. The non-library and information science positions held included information technology officer, IT network engineer, marketing officer, monitoring and evaluation officer, and programme directors. Although satisfied with the skills and knowledge they acquired from their LIS programme, the graduates recommended more practical sessions in cataloguing and classification courses and some more courses in ICT.

Keywords: Tracer study, Library and Information Science Career, Malawi

Introduction and Background to the study

A tracer study, according to Project for Rehabilitation through Education and Training – Opportunities for Needed Skills (PRET-Options) (2012)**,** is a a tool that is used to measure relevance of the qualifications attained by graduates from a training institution, and to document graduates finding employment in their trained occupations. Gathering and documenting feedback from graduates can help improve project planning, revise, or reinforce interventions, demonstrate results, and contribute towards improving public confidence in training. Depending on the information sought, a tracer study can be used as a tool for management, or marketing, or monitoring.

Tracer studies are used to seek opinions of graduates about the curricula they were offered by their former universities and whether these graduates obtained the required knowledge, skills, and attitudes for the job market or not (Lutwana and Kigongo, 2004; Stilwell, 2004). Such studies have resulted in some universities changing their offerings of the curricula to match with the requirements of the job market (Lutwana and Kigongo-Bukenya, 2004). According to Mammo (2007), some tracer studies have resulted into departments changing the programmes offered; and in some intances, their names were completely changed.

An Overview of the Library and Information Science Programme at Mzuzu University

Mzuzu University, Mzuzu University was established by the Malawi Government through an Act of Parliament of 1997, following a concern with the low human resource capacity in the country. Mzuzu University became the second public university, located in Mzuzu City, in the Northern Region of Malawi. The University has five faculties, namely: Education, Environmental Sciences, Tourism and

Hospitality Management, Information Science and Communications, and Health Sciences. The University, also has five centres, namely: the Centre for Open and Distance Learning, the Centre for Water and Sanitation, the Centre for Security Studies, and the Testing and Training Centre for Renewable Energy and Technologies. The LIS programme is offered in the Department of LIS, under the Faculty of Information Science and Communications (Mzuzu University Annual Report, 2015)

The first programme to be offered was Diploma in LIS in 2003. Later in 2005 a four-year Bachelor of Library and Information Science (BLIS) degree programme was also introduced. The first cohort of Library and Information Science (LIS) degree students was enrolled in 2005. Mzuzu University is the only institution in Malawi currently offering a standalone degree in LIS and a Master's degree in the same field.

Statement of the Problem

Tracer studies are vital as they help institutions of higher learning get reaction from their former students, about the programmes, by way of soliciting their opinions on the worthiness of the courses being offered and the experiences they got from the respective institutions. Outcomes from such studies provided the necessary skills, knowledge, attitude and practices required by different sectors. Sadly for Mzuzu University, since the Department of Library and Information Science was established in 2003, and since the graduation of the first BLIS graduates in 2009, no proper documentation has been done to trace the location of the graduates and how they were performing out there. This could be because the Department of LIS did not have a track of its graduates' situations once they leave the training institution. The other reason, could be because of lack of knowledge on the importance of tracer studies, lack of resources, and lack of capacity to conduct such a study. According to Shongwe and Ocholla (2011), tracking of university graduates' situations once they leave the training institutions is the university's obligation and this is something university must not miss on. When university and departments fail to carry out tracer studies, they will usually find it problematic to know the employment status of their graduates, and the challenges the graduates face which would have otherwise help them redesign and review the curriculum so that they best help them. It also creates a network of its alumni that could otherwise be helpful for sharing knowledge and information about potential job opportunities for those nearing graduation. Shongwe and Ocholla (2011) further noted that the absence of such information denies universities and departments valuable feedback from the graduates as well as the employers, more especially on the relevance and value of the degrees being offered. In the absence of such valuable information from these stakeholders, it becomes difficult to restructure the curriculum and prepare it for the future graduates so that it responds well to the needs of the employers.

Accordingly, this study is of great significance to the Department of LIS and Mzuzu University as it may help them to obtain feedback from LIS graduates on the effectiveness of the programmes in relation to the needs and expectations of both the graduates and the employers. Similarly, the information generated will also be used to improve the LIS programme so that it best meets the expectations of all the stakeholders. It will also set the basis for further studies in the future and possibly make relevant literature available for those in the academia and research scholars since this kind of study has never been conducted in the LIS field in Malawi. Moreover, there is absolute lack of information regarding the whereabouts of LIS graduates, their career paths, and what they are doing out there.

The purpose of this study, therefore, was to trace graduates of the Department of LIS of Mzuzu University from 2005 to 2015 to establish where they are, what they do, and what interventions can be made to improve their professional practices. This paper addresses the following key research questions:

- What is the employment status of LIS graduates in Malawi?

- In what sectors of the economy are LIS graduates employed in Malawi?

- Are the skills, knowledge, attitudes and practices of the LIS graduates acquired from their LIS degree relevant to their jobs?

- What further training, and skills and knowledge

have LIS graduates undertaken since their graduation to improve their employability?

- What courses should be removed from or added to the DLIS curriculum to improve training delivery?

Review of Related Studies

There are not many studies available on LIS graduates' tracer studies in relation to their employment status, sectors of the economy they are employed in, the skills, knowledge and attitude required of them to work in a digital environment, additional skills to improve employability and the review of the curriculum to improve training delivery. However, Kisiedu (1993) from Ghana; Aina and Mohai (1999) from Botswana; Lutwama and Kigongo-Bukenya (2004) from Uganda; Mammo (2007) of Ethiopia; Nengomasha and Chiware (2009) from Namibia; Ocholla, (2001); Shongwe and Ocholla (2011) and Stilwell (2004) from South Africa and Noko and Ngulube (2013) and Mugwisi and Hikwa (2015) from Zimbabwe are some of the scholars who have done some studies in this area even though none of them was from Malawi.

Kisiedu (1993) conducted a survey of past postgraduate diploma students (1970/71 to 1980/81) in the Department of Library and Archival Studies of the University of Ghana. One of the objectives of the study was to find out the employment status of graduates. The findings revealed that most of the graduates were employed and that university libraries were the largest employer agency seconded by the public libraries. A similar study was also conducted by Aina and Mohai (1999) on the Botswana library school graduates. Using a social survey method, the study established that most of the graduates worked in either national libraries or universities libraries. In Uganda, Lutwana and Kigongo-Bukenya (2004) in their in-depth qualitative study of East African School of Library and Information Science (EASLIS) graduates established that the graduates worked in various sectors of the economy, chief among them being in academic institutions, government departments, banking institutions and non-governmental organisations. Likewise, in South Africa, Stilwell (2004) conducted a quantitative study to determine graduates' perception of postgraduate Information and Library Science Education

programme at the University of Natal (now the University of KwaZulu-Natal). The findings revealed that most of the graduates were employed and that most of them were employed by academic libraries. Records and documents management units, school libraries, provincial libraries, special libraries, and education departments were the other employing agencies in South Africa.

Using a quantitative methodology, Shongwe and Ocholla (2011) conducted a tracer study of LIS graduates at the University of Zululand in South Africa to establish the employment status of the graduates and the sectors of the economy they worked in. The public sector was the main employer of the LIS graduates, with the private sector employing a few graduates. Out of the fifty respondents, only one indicated being unemployed. In Zimbabwe, similar tracer studies conducted by Mugwisi and Hikwa (2015) and Noko and Ngulube (2013) established varying results. Noko and Ngulube (2013) used a quantitative methodology informed by a cross-sectional survey design to trace Records and Archives Management (RAM) graduates in Zimbabwe. The results of the study were that the percentage of RAM graduates that were in employment was higher than those who were self-employed or unemployed. Relative to the sectors of the economy in which RAM graduates were employed, the study also found that the greatest numbers of respondents were employed in parastatals, followed by the private sector. The public sector was third and the non-governmental organisations (NGOs) had the least number of respondents employed. Mugwisi and Hikwa (2015) used a social survey to trace Master of Science in LIS graduates from the National University of Science and Technology (NUST), Bulawayo. The findings showed that many of their graduates were in employment after graduating. Most of the respondents were employed in universities, with the public sector and the private sector (the aviation industry, private schools, and a private financial institutions) being the other employers. An overall analysis of all the studies presented herein revealed that academic libraries and the public sectors were the main employing agencies. The private sector and NGOs also took some graduates, though at a minimal level.

Studies relating to relevance of the skills,

knowledge, and attitudes (SKA) of LIS graduates acquired from their studies which were for their jobs, curriculum reviews and improved training delivery, have been conducted in Australia by Combes et al., (2011); in Malaysia by Zainab et al., (2004); in Thailand by Nonthacumjane (2011); in the United Kingdom (UK) Goulding et al., (1999) and in Africa by several other authors.

In Australia for example, using a web-based survey and focus group discussion (FGDs) to find out the course expectations and satisfaction levels of graduates, Combes et al. (2011) established that many of respondents felt that they had studied subjects they expected to find in their courses. Participants were also reported to have been very satisfied with the contents of their courses. Generally, the graduates felt that the content of their courses thoroughly prepared them for the work place and were suitable as prerequisites for professional employment. In Malaysia, Zainab et al. (2004) traced LIS graduates to ascertain curriculum relevance to the job market and their satisfaction about the programmes. The study revealed that graduates were satisfied with the courses, particularly those with more practical orientation, including Information and Communication Technology (ICT) related modules such as information retrieval, and computer applications in library and information systems.

In Africa, Stilwell (2004), Nengomasha and Chiware (2009), Shongwe and Ocholla (2011), Noko and Ngulube (2013), and Mugwisi and Hikwa (2015) established that graduates were happy with the knowledge and skills they attained in their LIS programme since they were relevant to their jobs. Conversely, the authors (Lutwana and Kigongo-Bukenya, 2004; Stilwell, 2004; Mammo, 2007; Shongwe and Ocholla; 2011; and Noko and Ngulube, 2013) agreed that the graduates had some misgivings about the courses they had undertaken as they emphasised that more of theory than practical. In Uganda for instance, Lutwana and Kigongo-Bukenya (2004) found out that employers were not satisfied with graduates' lack of practical skills. They also criticised specialisations of courses through electives as faulty and was regarded as inadequate to impart the essential skills on the graduates. The findings also showed that the courses lacked ICT and research components. Such programmes as established by Mammo (2007) made graduates

dissatisfied with their qualifications since they considered them inadequate for their jobs. That was the case because the job market was dynamic and what they had learnt did not keep pace with the changing environment. Kamba (2011) also noted that that due to the demand for ICT competencies in the job market, LIS schools in Nigeria had responded by way of integrating ICT courses in their traditional curriculum. Implementation of these modules was however less effective due to poor ICT infrastructure, including poor bandwidth and the Internet.

In the UK, Goulding et al. (1999) conducted a study to identify and analyse the skills and knowledge demanded by LIS graduate employers. The results showed that the graduates lacked certain skills which they needed to upgrade themselves to further education especially in customer-care and interpersonal-skills, time-management techniques, organisational and contingency planning skills, problem solving and critical thinking skills, and evaluation and analytical skills. Confidence-building and assertiveness training can assist new professionals in their negotiations with management, colleagues and users and can help to improve self-assurance needed to improve employability (Goulding, et al., 1999).

Using content analysis methodology to study the key skills and competencies of new generation of LIS professionals, Nonthacumjane (2011) classified and summarised the required skills and competencies into generic and discipline-specific knowledge in Thailand. Generic skills were defined as the general skills which cut across disciplines; for example, communication, critical thinking, information literacy and teamwork. He identified some generic skills that were considered critical for LIS professionals such as: information literacy, communication, critical thinking, teamwork, ethics and social responsibility, problem solving and leadership. The discipline-specific knowledge which was required for new LIS professionals also included metadata, database development and database management system, user needs, digital archiving and preservation, collection development, content management systems, knowledge management, information systems skills, and desktop publishing. These generic skills and discipline-specific knowledge would enable the new generation of LIS professional,

to work successfully in the digital library environment.

Some literature so far reviewed in this study established that the curricula offered in some institutions were inappropriate. For example, Noko and Ngulube (2013) established that RAM graduates in Zimbabwe were dissatisfied in areas of industrial attachment and ICT skills. Provision for industrial attachment was also rated poorly by respondents in studies by Kisiedu (1993); Aina and Moahi (1999); Stilwell (2004); Kavulya (2007); Mammo (2007); Shongwe and Ocholla (2011), and Burnett (2013), among others. Industrial attachment was considered important because it helped the students to put theory into practice and acquire work experience during their training period. Even in other countries worldwide, the design of the curriculum has also been a cause for concern. For instance, Ameen and Warraich (2011) conducted a study to analyse the opinions of young and senior LIS professionals in Pakistan on their curricula and its relevance to market needs. Using questionnaires, FGDs and personal experiences from the graduates, the findings ascertained that the LIS curriculum offered at the University of the Punjab was up to date and well-designed, but it did not fully meet the needs of the graduates and employers. Both groups were dissatisfied with employability skills due to lack of implementation of LIS curricula and shortage of specialised faculty members. The employers complained of weak communication, poor practicals and bad presentation skills. They expected graduates with more multidimensional and market-oriented skills. On curriculum review and improvement of training delivery, Shongwe and Ocholla (2011) found out that respondents had suggested that modules such as cataloguing and classification, programming, information and knowledge management, business intelligence, graphic design, customer care, database management, school librarianship, and library and information systems should be included in the curriculum. The study also recommended that the LIS department should review its curriculum regularly to keep pace with the ever-changing business environment. Based on the deficiencies of the curriculum, Mammo (2007) **recommended** that LIS educators should consider open and distance education, as an option to delivering courses that would help upgrade their skills. The study also recommended course that would look into community-based librarianship and information systems since there were many community library and information centres being established in Ethiopia. It is evident from these studies that LIS educators in Africa need to review their curricula continuously to keep pace with the changing business environments which have been necessitated by the emergence of ICTs. This then would enable graduates to adjust to the changes swiftly and accordingly.

Method of Data Collection

The study used a quantitative methodology accomplished through use of questionnaire, as the main instrument for data collection. It was envisaged that this would be able to reach a physically spread-out number of graduates. The study also adopted the method based on studies from by Shongwe and Ocholla (2011); Ngulube and Noko (2013), and Mugwisi and Hikwa (2015). However, the questionnaire was modified to suit the aims and purpose of this study. The 234 LIS graduates between 2005 and 2015 (see Table 1) made up the population of this study. The sampling frame for the graduates constituted the graduation record starting 2005, the year when the first LIS Diploma students graduated from Mzuzu University, while the first group of Bachelor of LIS degree students graduated in 2009 (Mzuzu University 2005-2015).

Source: Mzuzu University (2016).

Table 1: Graduation Statistics (2005-2015)

Year	Diploma in LIS	Degree in LIS	Total
2005	9	0	9
2006	10	0	10
2007	8	0	8
2009		6	6
2010	11	60	71
2011	13	19	32
2012	0	17	17
2013	8	1	9
2014	14	24	38
2015	8	26	34
Total	**81**	**153**	**234**

The study used a web-based questionnaire which was uploaded on Google drive forms and distributed using a social media platform (Facebook), emails to the LIS graduate employers and to the graduates themselves. Convenient sampling and snowballing were used as the forms were distributed to those that were within reach who could in turn distribute the forms to their fellow graduates, just like Shongwe and Ocholla (2011) advised. A web-based survey was also used in similar studies by Combes et al (2011) in Australia. Google forms generated some statistics which were imported onto *Excel* for data cleaning and generation of tables, charts, and percentages. To guarantee the study's adherence to ethical considerations, the researchers asked for consent from the Directorate of Research at Mzuzu University before doing the survey. The researchers also made sure to advise the participants that participation was voluntary and that the responses would be treated with utmost confidentiality. The outcomes would also be made available to the participants through reports, presentations, and through the Mzuzu University Library and or Mzuzu University website.

Findings and Discussions

This section reports on the major findings that were obtained from the LIS diploma holders and bachelor degree graduates on their jobs in Malawi.

Characteristics of Respondents

From the 234 diploma holders and graduates as shown in Table 1, 110 copies of the questionnaire were sent out to LIS graduates whose contact details were accessible by the researchers. From the 110 participants, 66 (60%) completed and returned the questionnaire. Only 58 people indicated their gender. Of these, 18(31%) were females while 40(69%) were males. The rest did not indicate their gender. Such a response rate is considered adequate, considering that other studies have realised much lower response rates: (Aina and Moahi, 1999 (41.2%); Mammo, 2007(42%); and Noko and Ngulube, 2013 (48.1%). The respondents for this study are shown in Table 2.

Table 2: Distribution of Diplomates and Graduates Returns (N=66)

Year	Diploma	Degree
2005	3	0
2006	3	0
2007	3	0
2009	2	3
2010	5	15
2011	2	4
2012	4	4
2013	4	3
2014	0	3
2015	3	5
Total	**29**	**37**

Employment Status of LIS Graduates and their Sectors

From the 66 respondents, 63 indicated their employment status. Out of the 63 respondents, 55 (87.3 %) indicated that they were in employment, while 6 (9.5 %) were self-employed or unemployed one respondent did not indicate the employment status. This study considers an employment rate of 87.3% remarkable. This may be attributed to the fact that the National Council for Higher Education (NCHE), a government agency that accredits university programmes, has set strict measures that demand that all universities must establish good libraries and employ qualified librarians. Hence, many colleges have established their libraries and made sure that they recruited qualified librarians. Other studies also found out different employment rates. For example, Zainab, et al. (2004) reported that the employment rate in Malaysia was at 81%. In Botswana, Aina and Moahi (1999) reported the employment rate of the LIS graduates from the University of Botswana was at 76.6% while in Zimbabwe, Noko and Ngulube (2013) reported that the employment rate of the RAM graduates was at 67%. Nonetheless, Mugwisi and Hikwa (2015) reported that employment rate of the LIS graduates was 100% and in South Africa, Shongwe and

Ocholla (2011) reported that the employment rate of the graduates was at 72%.

Regarding the sectors where LIS graduates are employed, 63 responses were received. The sectors of the economy were arranged under the following groups: public, private, parastatal, NGO and 'other' to provide for those categories which were outside these categories. Most of the LIS graduates 29 (46%) indicated the academic sector was the main employer. Conversely, 19 (30.2%) of the respondents were employed in the parastatals, while 5 (7.9%) were employed in the private and public sectors. Additionally, only 3 (4.8%) of the respondents were employed in the NGO sectors and 2 (3.2%) were employed by the other sectors. More so, 6 representing 9.6% were self-employed. There could be two probable reasons that might have helped universities attract or employ more LIS graduates than other sectors. First, universities might have well established libraries with good compensation for staff, compared to the public sectors. Secondly, the pressure on them by NCHE which forced all universities to build and refurbish their libraries before being accredited could be one of the prime reasons. These findings match with those of Lutwama and Kigongo-Bukenya (2004) which established that 65% of the East Africa School of Library and Information

Science (EASLIS), Uganda graduates were employed by academic institutions due to their well-established libraries and good pay for staff. Aina and Moahi (1999) ascertained that 74% of the LIS graduates were employed in the public sector. The academic sector employed 37.7% of the LIS graduates. This was because the graduates were sponsored for their studies by these categories of sectors. The findings of the present study however contradicts those of Noko and Ngulube (2013) who revealed that the largest number of graduates were employed in government parastatals, followed by the private sector. More so, findings by Shongwe and Ocholla (2011) showed that most of the LIS graduates were employed in the public sector. Table 3 summarises the significant sectors of the economy in which LIS graduates have been employed and the different job titles they hold.

Job Titles

The respondents identified a variety of jobs. Of the 61 respondents, 29 (47.5%) were employed as librarians, with 15 of them employed in the academic sector, 13 in the parastatals, and 2 in the private sector. There were only 3 (4.9%) graduates who worked as lecturers in the Department of LIS.

Others held positions of library assistants, senior library assistants, chief library assistants or knowledge managers. The study by Shongwe and Ocholla (2011) also found that 40% of the respondents held the position of librarians. Similarly, Lutwama and Kigongo-Bukenya (2004) established that 50% of the graduates worked as librarians. In Malaysia, Zainab et al. (2004) reported that all the graduates held different posts such as librarians, information officers, teachers, lecturers, and managers respectively. However, in the present study, it is interesting to note that many graduates hold the non-LIS traditional titles such as information technology officer, information technology network engineer, marketing officer, monitoring and evaluation officer, and programme directors. This is so because Mzuzu University LIS programme offers courses in ICT such as computer networks, databases and information systems, marketing of library and information resources, and projects management among others. These helped the graduates to get jobs that are related to ICT, marketing, and projects management, just to mention some. This also demonstrates that our curriculum is flexible and competitive as it enables the graduates get such an array of jobs.

**Table 3: Sectors and Job occupied by LIS Graduates**

Sector	Nature of Organisation	Positions occupied
Academic (29)	Universities/Colleges	Librarians, Chief Library Assistants Senior Library Assistants, Library Assistant, Systems Librarians Lecturers
Parastatal (19)	Universities/Colleges National Library Services Trade Development Centre Enterprise Development Fund	Librarians, Chief Library Assistants, Senior Library Assistants, Library Assistants Librarians Knowledge Managers IT Officers

Work Experience

From the 66 respondents, it is observed that 23 (36.5 %) of the LIS graduates had been employed for more than 10 years; 13 (20.6%) for more than a year; 11 (17.5%) for more than two years; 10 (15.9%) for more than five years and 6 (9.5%) for less than a year while three people did not respond (see Figure 1). The variations in work experience are attributed to the fact that, for those with more than 10 years of work-experience, they were already employed when they were studying for their diploma and degree programmes at Mzuzu University. They were admitted to Mzuzu University as mature students. Those with five years or less of work experience were admitted to Mzuzu University as generic students, (students that are admitted into the university straight from secondary schools) and after their graduation, they had to seek employment.
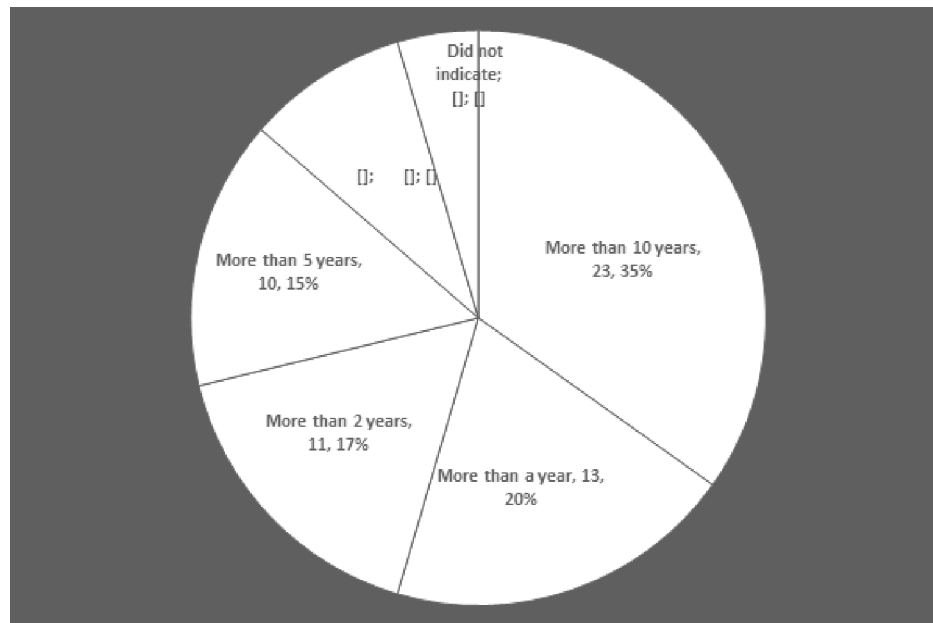
Figure 1: Work experience of LIS graduates (N=66)

Tasks Performed by LIS Graduates

The study found that most LIS graduates worked as librarians. This means that the majority librarians' daily tasks include selection, acquisition and processing of books and non-book materials. The processing part includes cataloguing, classification, abstracting and indexing. Other tasks include assisting students, staff, and researchers with information searching and retrieval and information literacy training. In addition, they also help establish processes and procedures for selection and circulation of information resources as well as, information storage and retrieval. They also orient students, academic staff, and researchers by explaining and demonstrating to them proper use of equipment, information systems and online resources. They also help with shelving books; general library administration and management (planning, preparing library budget, supervision and mentoring of junior staff); managing book circulation procedures; managing print and electronic journals collection; developing local databases on topics relevant to the needs of the university; and attending to library users' requests and writing report. These results were in tandem with what was established by Aina and Moahi (1999); Zainab, et al., (2004); Shongwe and Ocholla (2011) and Mugwisi and Hikwa 2015). The emerging common tasks performed by the LIS graduates as also established by Aina and Moahi (1999), Zainab et al. (2004), Shongwe and Ocholla (2011), and Mugwisi and Hikwa (2015) include cataloguing, classification, acquisition of library materials, information literacy, book circulation, inter-library loans, marketing of library services, and general library administration (planning, budgeting, staff

supervision and report writing). Those that occupied positions in IT Departments were tasked with network installation and optimisation, management of computer networks, supervision of network technicians and managing information systems. Those that occupied positions in the projects field, were busy with developing organisational programmes, planning and implementation, monitoring and evaluation and implementation, compiling and writing project reports. Lecturers were involved in lecturing and supervising undergraduate and post-graduate students with research projects, conducting research in the LIS department, preparing exams and assignments, marking and awarding grading exams and assignments. Those that were self-employed were involved in developing applications aimed at improving access to information in academic settings (digital libraries); personal entrepreneurship such as buying and selling foodstuffs and typing and printing secondary terminal examinations for some schools. Those in 'Others' were preoccupied with farming, salon management; selling jewelleries, handbags, and other hair accessories.

How did LIS Graduates get their Jobs?

The results showed that most graduates got their jobs by responding to advertisements in the daily newspapers. Out of the 63 respondents, 54 (85.7%) indicated that they got their jobs through newspaper. Others indicated that they got their jobs through personal contacts, being poached, dropping of unsolicited application letters, and through promotion. Nobody indicated that they were employed through internship or through employment agencies. It could have been that these two modes of recruitment are popular in Malawi. A similar study by Shongwe and Ocholla (2011) reported that advertising through newspapers and websites were the most popular ways of attracting LIS applicants.

The Skills, Knowledge and Attitudes Required for LIS Graduate Jobs

The question on skills, knowledge and attitudes (SKA) of LIS graduates was open-ended and required the respondents to provide multiple responses. All the 66 respondents responded to this question. For LIS graduates to carry out their tasks diligently, they must possess certain skills, knowledge and attitudes. This study categorised the skills and knowledge into generic and discipline-specific knowledge. For example, good communication skills may include skills such as writing, interpersonal, organisational, computer, information literacy, analytical and networking. Team-building, critical thinking and problem solving constitute the generic skills. These results are akin to those by Nonthacumjane (2011) and Ameen and Warraich (2011) who found out that communication, critical thinking, information literacy, teamwork, problem solving, and organisational skills were critical for information professional. These skills cut across an array of disciplines.

As for discipline-specific knowledge and skills, respondents indicated that graduates must have knowledge of cataloguing, classification, customer care, marketing, collection development, business management, copyright management, indexing, rural information services, leadership and management, digital citizenship, educational psychology, counselling psychology, planning and budgeting. Other knowledge levels identified included records management, knowledge management, human resources management, library and information sciences in general. Conversely, IT related knowledge that LIS graduates must have included web-based application development; systems programming; systems analysis and design; computer networks; information systems; database management systems and end-user computing. The LIS graduates were all in agreement that they needed to display attitudes such as perseverance; ability to accept and learn from others; teamwork; hard work; dedication to duty; creativity; integrity; adherence to ethics; self-confidence; self-starter; neatness; patience; good listening skills; strategic thinking; friendliness; humbleness; flexibility; and good problem solving skills for them to be able to function effectively. For those that were self-employed, they indicated that they got their knowledge and from the LIS programme. For example, one of the self-employed respondent commented: "*I acquired my marketing and communication skills from the LIS programme because during my studies we had a course called Marketing in Level 3 and Communication studies in Levels 1 and 2*". In line with these findings, Shongwe and Ocholla (2011) also found out that

attitudes like the ones above were critical for LIS graduates to survive in the workplace. Indeed, the SKA are key for LIS professionals since they help them seek employment and maintain their good jobs in the ever changing information environment.

Relevance of the Skills and Knowledge of LIS Graduates Gained from the LIS Programme

The opinion of LIS graduates about the relevance of the skills and knowledge they had acquired from the LIS department at Mzuzu University was collected through an open-ended question which required them to provide written responses. Out of the 66 respondents, 60 (90.9%) responded positively. The results showed that skills gained from the LIS Department at Mzuzu University were appropriate and applicable to their daily tasks at their jobs. Some respondents had this to say: "*Since our library is automated, IT skills like Networking and Information Security are heavily applicable*".

Another one said: "*Though not all skills apply, but some do. The computer skills I acquired as well as web development skills are relevant. I designed the website for my organization and I also use various computer skills for the effective implementation of the programs*".

Another respondent wrote:

Yes, I am involved in orienting library patrons on accessing information resources in the library and understand the classification system which heavily relies on my knowledge of the classification system. I orientate them on the use of OPAC which requires me to use the knowledge I gained in database management and information retrieval. My knowledge gained in guidance and counselling helps me to counsel users when need arose. I acquired all this knowledge through my studies at Mzuzu University.

Among those that were not positive, six of them indicated that the Department should intensify

practical sessions in cataloguing and classification, electronic resources, and databases. The respondents indicated that the Department need to intensify the teaching of two prominent library software systems being used in Malawian libraries (Koha and Library Solution). It is not clear what the respondents implied by intensifying practical sessions in cataloguing and classification and whether this should be during class sessions or during the actual internship programmes. Another concern was that the Department should teach in detail a course covering monitoring and evaluation skills.

Satisfaction with the LIS Curriculum

The question on the level of satisfaction with the LIS curriculum drew several interesting and contradictory responses**.** There were 22 out of 66 respondents who indicated that they were fully satisfied with the LIS curriculum offered. One of them said:

Yes. I was introduced to courses which have direct impact on my duties, such as information literacy, communication skills, sociology of knowledge, information retrieval systems, cataloguing and classification, language skills, just to mention a few. I can now organise both traditional and electronic libraries from the scratch.

Twenty-one respondents indicated that they were not really satisfied with the curriculum. They stated that they were not satisfied with it because of the inadequate ICT courses provided for by the current curriculum. In some cases where these ICT courses were taught, they were not covered in detail. Hence, one of the respondents remarked:

I was somehow satisfied and somehow not. I was particularly impressed with the diversification of courses that were offered ranging from the core courses of information management, ICT courses, Business courses, communication courses to psychology courses. However, the curriculum had too many linguistics courses which are not really needed on the market, yet

lacked some important ICT and statistics courses that are marketable.

Shongwe and Ocholla (2011) also found some contradictory responses from the graduates when asked whether they were satisfied with the curriculum offered by the Department of Information Studies. Half of the graduates (25) indicated that they were not happy with the curriculum. Only 15 indicated that they were happy with the curriculum, and the rest (10) gave unclear and contradictory responses.

In the current study, the LIS graduates felt that they did not need linguistic courses as they did not add value to their after school environment. Other respondents' major concerns were shortage of teaching staffing in the department to cover the curriculum adequately, the offering of education courses which to them were not ideal for LIS. Thus, one respondent commented:

> *I was contented with the LIS programme undertaken by the Department of here at Mzuzu University. However, the challenge was the implementation phase of the curriculum. I observed that the department has inadequate teaching staff to comprehensively conduct teaching of the courses in the manner as outlined in the curriculum itself".*

The remaining 20 respondents indicated that they were absolutely not satisfied with the curriculum. This is despite all 60 respondents indicating earlier on that the skills and knowledge gained from the curriculum were appropriate and applicable to their work environment. The reasons provided for dissatisfaction were that the curriculum was shallow and that its review was long overdue. Other reasons provided were that the curriculum was just meant for librarians. Still, others were not contented with the nomenclature of the library and Information sciences programme. They had this to say:

> *"The naming of the programme library and information science reduces marketability and employability*

because the assumption out there is that our place is the library. I would suggest renaming it to Information Management, encompassing records, data, archives, and knowledge management".

Courses or Subjects to be Removed from or Added to the LIS Curriculum to Improve Training Delivery

The study sought respondents' opinions regarding courses to be included or be removed from the curriculum. The courses that were suggested to be added have been categorised under five overarching themes. These themes are: ICT, information science, management, business, finance and economics, and education. Most respondents stated that ICT courses that should be added include: networking, information systems, programming in linux and c+, database management such as MySQL and Oracle building and managing digital repositories and Web designing. Within the theme of information sciences, courses that were suggested to be added to the DLIS curriculum included legal aspects of information, copyright management, Inforpreneurship, library management systems like Koha, social media in libraries and information centres, information packaging and data management. Under the theme of management, courses that the respondents have suggested to be added are knowledge management, human resources management, project management with an emphasis on monitoring and evaluation. The respondents suggested that courses such as statistics, entrepreneurship, purchasing and supply chain logistics, finance and accounting, advocacy and marketing, principles of economics, and public relations should fall under business, finance and economics should also be added. All self-employed LIS graduates were of the view that a course in entrepreneurship tailored to the local context should be offered. The theme of education had guidance and counselling, the art and science of teaching and some psychology courses. Some respondents suggested these educational courses should be maintained because they sometimes struggle to find jobs in the library field and end up teaching, hence they consider them relevant.

Ironically, great many graduates suggested that

education courses such as history, geography, phonetics, comparative linguistics and socio-linguistics, introduction to languages, history of computers, and discourse analysis should be removed. They added that these courses are not relevant to their profession. For instance, one respondent remarked:

> *"These educational courses should be removed from the LIS curriculum, I do not see any connection with the current job I am employed in"*.

Further Training Undertaken and the Skills and Knowledge Acquired Since Graduation

Relative to the additional skills and knowledge that LIS graduates attained after graduation, the respondents indicated that they had gained various skills. For example, the skills included customer-care, communications (memo writing, report writing, etc.), team building, supervisory, facilitation, advocacy, negotiation, research, investigation, leadership, managerial, public relations, pedagogy, and ICT skills. The respondents indicated that they had acquired the knowledge of Koha Management, Library Solution and referencing software tools. Other knowledge acquired included human resource management, e-resource management, and D-space Content Management System.

Of the 61 respondents on the issue of further training for LIS graduates, 24 indicated that they had not attained any training, while 9 said that they had attained a Master's degree in Library and Information Science, Intellectual Property Rights, Education Psychology, Information Technology and Leadership. The rest (27) had attained some short courses leading to the award of certificates in finance, business, entrepreneurship, Christian leadership, customer care, time management, human rights, web designing, forensics, and events management.

Conclusion and Recommendations

This tracer study has provided an exposé of the strong points and the weaknesses of the LIS programme at Mzuzu University. The findings

indicated that 87.3% of the LIS graduates were employed mostly in the LIS related professions. The respondents had worked for a period between two and ten years. Most of them (54%) indicated that they got their jobs through advertisements in the newspapers. The high employment rate as argued earlier on was because of the graduates having been already employed by the time they enrolled on the programme. The other reason could be attributed to the fact that NCHE forced universities to establish strong libraries and employ qualified librarians rest they risked not being accredited, and this made them employ graduates. The study has also shown that in Malawi, academic institutions and parastatals employ more LIS graduates than any other sectors. These graduates held different job titles with almost half of the respondents holding the position of Librarians.

The study revealed that some of the graduates were satisfied with the diversity of the courses offered as well as with the skills and knowledge they got from the Mzuzu University LIS programme, and that such skills were useful at the work place. There were some graduates who were not satisfied with the LIS curriculum because of lack of practical sessions and fewer ICT courses. It is for this reason that the study recommends that the Department of LIS should intensify practical sessions in cataloguing and classification courses, and add more ICT courses in the curriculum. This in turn may assist the graduates to be more marketable, as they will be theoretically and practically sound.

The study recommends that the LIS Department should be involving its LIS alumni and other stakeholders including students and the industry every time it is reviewing its curriculum so that they can provide their input. The involvement of the alumni and other stakeholders will also help improve marketability of the graduates and to raise awareness on the skills, knowledge and expertise of the graduates and the lecturers. Moreover, periodic tracer studies will assist the Department innovate and revitalise its curriculum as it will obtain direct feedback from both the employers and the graduates and in turn, the university will be the one to benefit enormously.

The study also recommends that the Department of LIS should keep a complete record of the graduates to enable future studies run smoothly. This study had some limitations in that, using

snowballing sampling technique led the researchers to study employed graduates only and it was difficult to locate unemployed graduates.

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