

**SHAPING LIBRARY AND INFORMATION SERVICES DELIVERY
THROUGH INNOVATION AND TECHNOLOGY AT THE
UNIVERSITY OF ZAMBIA**

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Abstract

Information and Communications Technology has brought about a paradigm shift in the way library services are being delivered. The digital revolution motivated by technology innovation has transformed academic libraries. Technology has impacted on every sphere of academic library activity such as acquisition, organisation, storage, retrieval and delivery of information both in print and digital formats. Academic libraries support the core business (teaching, learning and research activities) of the parent institutions. Therefore the need for these institutions to innovate becomes imperative. This study attempts to highlight innovative library services (e.g. subscription to online resources, open access institutional repository, dynamic website, information literacy programs, etc.) that have been successfully adopted at the University of Zambia with the aim of investigating staff perceptions toward technology based innovation. Using a qualitative research design, interviews were conducted with six (6) key informants between June and August, 2017. The 6 librarians were purposively sampled from a population of 55 librarians working in the University of Zambia Library. It was established that innovation was crucial if the library was to be relevant in this era, hence the need for all stakeholders to develop realistic strategies that would keep the library afloat in this age and beyond. The findings of this study will inform stakeholders on how best to align service delivery for the benefit of the user community. The paper concludes by noting some barriers to innovation and proposes areas for enhancement.

Keywords: *Innovation, Innovative Library services, ICT environment, University of Zambia Library*

Introduction

Technology has the ability to completely change the way in which industries operate. Libraries are not immune to the effects that emerging innovations and technology can have on the services they provide to patrons. Walter and Lankes (2015) opines that innovation in academic libraries should be broadly defined to include changes in existing library service programs according to the changing needs of users, new service programs that are enabled by new digital technologies and new services that support new paradigms of teaching and research. Islam, Agarwal and Ikeda (2015) argue that for the academic library to remain relevant to its users, it must redefine its role and innovate to create responsive and convenient services. Therefore, the need to bring information to various users has encouraged the creation of many innovative services linking new technology with traditional library information services. The emergence of digital technologies and information and communications technology (ICT) tools in libraries has encouraged the implementation of a wide range of applications and services such as digital libraries, the use of social media tools, dynamic websites in order to make services visible, embedding electronic resources into e-learning platforms, etc. In the changing information environment, technological advances, changing customers and needs, intensified competition and changing business environment have been the dominant drivers (Basahuwa, 2017).

Bearing that in mind, the University of Zambia Library (UNZA Library) has been actively implementing the innovation –driven library and information service delivery approach, transforming and upgrading traditional services to modern services. The aim of this paper is to highlight the innovative services and approaches that librarians at the University of Zambia (UNZA) have successfully introduced to meet the ever changing needs of library users.

Background

Established in 1969, UNZA Library is the oldest and biggest academic library in Zambia, boasting of five (5) divisions/departments within the library and 3 branch libraries. All the divisions and branch libraries are headed by professional librarians with the competence to pioneer technologically related innovations within their libraries. It is through their innovative efforts that the UNZA Library derives its fame as the leading academic library in Zambia. It is worth noting that not so long ago library services at UNZA were predominantly traditional. Today, the case is different owing to the advent of library based technologies coupled with the ingenuity of the new crop of librarians. UNZA

Library first automated its services in 1996 and since then, the institution has not looked back.

Problem statement

The importance of service innovation in an academic library environment cannot be overemphasized. Consequently, there is need for librarians to move with the current trend in society not only to innovate library and information services, but to consolidate and sustain the already implemented innovative services and practices. Since 1996 when UNZA Library successfully implemented its first technological innovation (the Integrated Library Management System) and later followed by other innovative information services, no study to date has investigated librarians' perceptions of innovations at UNZA. This study therefore aims to fill this gap.

Objectives of the study

The main objective of this paper was to investigate assess librarians' perspectives on innovation and the factors militating against its development. Strategies to drive innovative library service delivery to new heights are highlighted. This study was guided by the following specific objectives:

1. To ascertain the importance of innovation to UNZA Library
2. To find out the types of innovative services that UNZA Library provides to its users
3. To investigate the barriers to effective innovative service delivery
4. To suggest novel innovative library services

Literature review

The mass of innovation literature has focused on the for-profit and manufacturing sectors. Relatively few studies of innovation in academic libraries exist. For instance, Musangi (2015) observe that 21st century academic libraries have witnessed a lot of technological changes, which cannot be ignored. Reference librarians in academic libraries cannot stay static or traditional in their services or outreach to users, they need to harness technology and its capabilities in order to provide the information and literacy skills needed today by the 'net-gen' generation of users. The library users of today in the academic libraries coupled with the advancement of technology has changed the physical makeup of libraries and their functions and, thus, has made an impact on the way information is delivered, as libraries strive to redefine their services in order to meet users' needs and expectations.

In a related discourse, Musangi (2015) observes that traditional models of libraries offering information services are not working for current generation of students. The current generation of library users can be termed as 'digital natives'. These digital natives have grown up in an environment surrounded by rapidly evolving technologies. This means that today's academic library users think about technology and information differently than previous generations, and expect instant access to information. With this kind of environment and expectations, academic libraries need to evolve by changing to offer user-oriented services and following users into their social spaces by allowing users to participate in the creation of content, keeping the users constantly updated and building services based on their feedback. To achieve this, libraries need to incorporate web 2.0 tools in the way they provide services.

A research by Kaur and Sharda (2010) elaborates on how technological innovations have led to the improved information management and library services. Information technology and Information Communication Technology have changed the information seeking behavior of the users and services being provided by the librarians. In spite of some problems in using e-resources almost every user need e-resources in one or the other form. This information explosion, increasing needs of users, lack of self sufficiency and financial crunch has led to the formation of consortia all over the world.

A study by Anyira (2011) explored the librarian-based factors that pose serious challenges to the delivery of library services in the 21st century. It is not just funding, but also the librarian that hinders the 21st century library. Factors include inflation of costs, embezzlement, bribery, and misappropriation of funds, lack of relevant skills, fear, bias, dogmatism, and ageism. Librarians should develop themselves by seeking ICT training; take full advantage of training and development, and take advantage of the knowledge and education offered by conferences and workshops; ICT skill should be accorded priority in recruiting and retaining librarians; the LIS curriculum should include 21st century advancements, to avoid churning out fresh librarians with obsolete skills; Librarians should handle library finances conscientiously without defrauding the library.

Research Methodology

This study adopted a qualitative research design to gain insight into how librarians at UNZA perceived innovation. The participants for this study were departmental librarians, and data was collected by interviews with each librarian. Face-to-face interviews were conducted with six (6) librarians between June and August, 2017. The 6 respondents were purposively sampled from a population of 55 librarians working in UNZA Library. Content analysis method was used to analyse the data.

Limitations

This study follows a case study approach to gain insight into how librarians at UNZA perceive innovation. Since the sample is small, the findings presented here suggest that future practical research will need to be firmly conceptualized to circumvent methodological mistakes. With the limited sample size in this study, generalizations cannot be attempted for organizations beyond academic libraries. However, given the homogeneity of many academic libraries in public universities, it is expected that the observations reported here will be relevant for many of these libraries in Zambia.

Findings

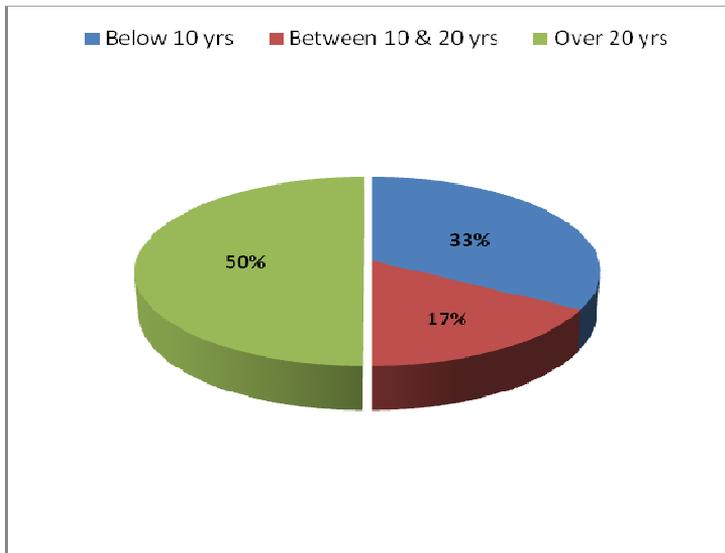
Bio data

Out of the 6 librarians that participated in the study, 2 (33.3%) respondents were male and 4 (66.6%) were female. All the 6 key informants were holders of a master' degree in Library and information Science and were heads of divisions/departments within the library. Table 1 and figure 1 below gives details of the demographic distribution of the respondents.

Table 1: Sex of respondents

GENDER	FREQUENCY	PERCENT
Male	2	33.3%
Female	4	66.6%

Fig. 1: Length of service (No. of years served)



With regard to length of service in the library, 2 (33.3%) indicated that they had worked in the library close to 10 years, 1 (16.6%) mentioned that she had been a librarian for about 15 years while 3 (50%) disclosed that they have been in the library profession for 20 years.

Importance of innovation

With regard to the importance of innovation in the university library, all interviewees indicated that innovation was a significant process for the library to survive and flourish in the 21st century. Respondents were unanimous in stressing the significance of innovation at UNZA. One respondent observed that: *“Innovation has the potential to increase the effectiveness of information service delivery.”*

From the above, it can therefore be deduced that innovation is not only important, but crucial to the survival of any library.

Types of innovative services

Table 2: Types of innovative services provided by UNZA Library

INNOVATIVE LIBRARY SERVICE	FREQUENCY	PERCENT
Providing access to online resources (e-journals & e-books)	6	100%
Use of Social Media tools	6	100%
Open Access Institutional Repository (IR)	5	83.3%

Information packaging	4	66.6%
Reference Services & Pathfinders	4	66.6%
Partnership with faculty units	3	50%
Dynamic Library website	2	33.3%
Technical Services Unit	2	33.3%

Table 2 above depicts a variety of innovative services that have been successfully adopted at UNZA. As can be seen, providing access to online resources and use of social media tools both at 6 (100%) are the leading innovative services to date followed by the Institutional Repository with 5 (83.3%). Information packaging and Reference Services and path finders were at 4 (66.6%) followed by partnership with faculty units at 3 (50%). Dynamic Library website and Technical Services Unit were both at 2 (33.3%).

All the above are a pointer to the progressive actions by the library in an effort to keep improving service delivery, craft efficiency and bring value addition to some library products. Although the Technical Services Unit had 2 (33.3%), it does not necessarily mean that it is the least in importance.

Challenges of providing innovative services

In discussing some of the challenges that have prevented the library from implementing its ideal library services, majority cited poor funding, poor internet connectivity, lack of technology literacy, etc. One key informant noted that: *“We need to train ourselves to be more knowledgeable about the new formats of digital materials we are offering.”* Thus the efforts of the library in providing improved information services are hampered by the existence of some of the aforementioned barriers whose genesis is that of inadequate funding.

Envisioned innovative library services

When we asked library staff about the innovations and new services that they would like to see implemented, we received a range of responses. The study found that having mobile technologies for enhanced service delivery and more digital materials available was high on the list; with others indicating that they would love to have more e-books available. One key informant expressed the need for the library to introduce digital literacy to all library users. This is important because digital literacy is a highly sought competency among librarians and users alike, as library services are now offered through a range of media. Three respondents called for systematic re-skilling of librarians so that they could be relevant in the existing information environment. See figure 2 below.

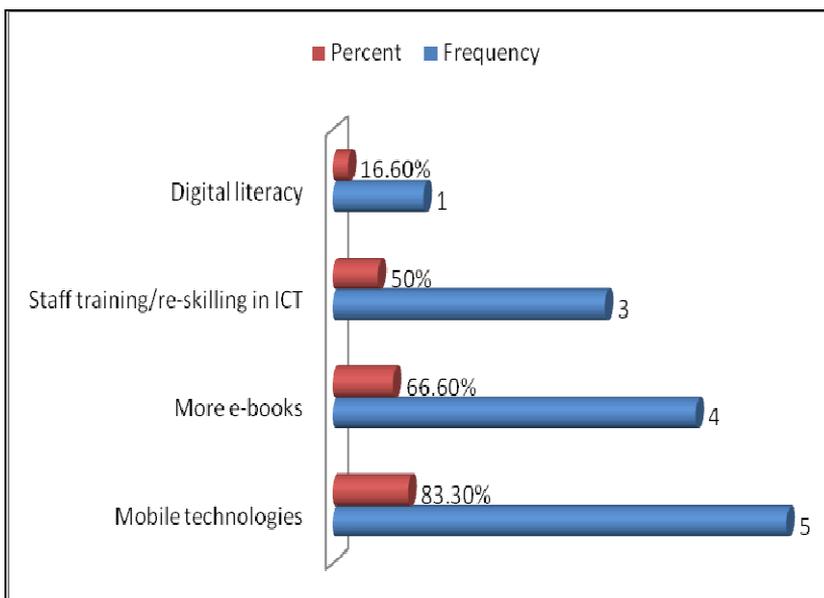


Fig. 2: Future innovative library services

Discussion

Importance of innovative library services

Concerning the importance of innovative library services, the study established that innovation was a critical process for UNZA to survive and thrive in the 21st century. This therefore means that the importance of innovation at UNZA cannot be underplayed. Everything possible should be done policy wise to sustain these innovative services for the good of not only the user, but the library as well. It should be mentioned that service innovation is important for several reasons. For one, it can improve the lives of library users. Secondly, innovation is the key driver for a firm's competitive advantage. Organisations that fail to innovate are less profitable. Their jobs are less secure, and their existence is not sustainable. And innovations can have a significant impact on the society as a whole.

Types of innovative services

With regard to types of innovative services already implemented, the following services were identified: providing access to online resources and use of social media tools, Institutional Repository (IR), Information packaging, online references services, partnership with faculty units, library website and availability of the technical services unit. It should be noted that the library is in the business of connecting people with information.

UNZA Library facilitates access to a number of academic/scholarly databases, electronic journals (e-journals) and electronic books (e-books), a development which was unheard of in the early 2000. This innovation has contributed to quality academic papers and improved performance by students.

Social media platforms such as Face book have made it possible for people to actually connect to one another through the Internet. According to Khan and Bhatti (2012), social media provides more opportunity for the library to reach its community, target specific audience, and give them a chance to interact with the library. By using face book, UNZA Library is now able to engage its users on issues of interest and enable them make inputs especially as it affects library services.

Packaging of information in various formats has become the standard in the digital era. This has created new opportunities for the library to provide value added services in the academic environment. UNZA Library has exploited these advantages by developing and preserving a research output of UNZA through digitalization of projects, theses and dissertations where staff can archive their scholarly works. This innovation has given rise to an Open Access (OA) Institutional Repository called University of Zambia Research Repository Online.

Pertaining to reference services and the creation of pathfinders at UNZA Library, the study established that reference service is one of the innovative practices that have brought value addition to library service delivery. Musangi (2015) notes that reference librarians in academic libraries cannot stay static or traditional in their services or outreach to users, they need to harness technology and its capabilities in order to provide the information and literacy skills needed today by the 'net-gen' generation of users. This observation is so true of reference librarians at UNZA who are trained to employ in-depth knowledge and search strategies to meet user information needs. With the advancement in technology, UNZA Library has likewise innovatively integrated technology to meet the information needs of the users. For instance, the introduction of electronic mail reference, ask the librarians and other Library website based services have transformed traditional based reference services to online reference services, etc. This has ultimately improved the knowledge of the librarians as well as the library's image. In the same vein, the creation of pathfinders has given the library a good image from the users view point. The intent of a pathfinder is to locate reference materials in a variety of formats. It is also intended to teach the process of creating reference tools for library patrons. Regarding partnership, librarians have discovered the power of partnership with academic units to teach their students information literacy skills. It is the responsibility of libraries to inform and empower users to become resourceful.

Currently, librarians at UNZA are undertaking significant efforts to collaborate with faculty and have more of a central role within UNZA, particularly with a view to increasing information literacy skills such as literature search skills, citation styles, research methods, data analysis techniques to mention but a few.

The development of a dynamic library website is the digital front door of the library. The website has been designed to a lot more interactive features and services. It has been transformed from being a static/billboard type to a dynamic site working on promoting access to in-house library resources via the Online Public Access Catalogue (OPAC), online resources, the institutional repository, and access to an electronic learning platform called Moodle.

As regards the Technical Services Unit, a department established in 2011 to oversee library technology related duties such as in-house training of librarians in computer applications, troubleshooting, and acquisition of hardware and software packages for the library, the study established that without this unit all the other services cannot be offered effectively. This unit works hand in hand with the university's Centre for Information and Communication Technology (CICT).

Challenges

In discussing some of the challenges faced, the study discovered a number of constraints such poor funding, poor internet connectivity, lack of technology literacy to mention but a few. With respect to funding, it should be noted that funds are needed to cater for a whole range of services in the library. Funding is essential to excellent library services.

Internet plays a crucial role in accessing digital information. Therefore poor Internet connectivity is a major obstacle to accessing online information. Related to poor Internet connectivity is the lack of ICT competency among some librarians. Some librarians are averse to technology and perceive the application of computers to library work as an aberration. This being the case, they are hesitant to adopt new technology. This slows service delivery and retards productivity.

Regarding lack of technology literacy among librarians, this study established that some library staff were technologically challenged and therefore were a hindrance to innovation itself. This result agrees with Anyira (2011) who found that librarians without a well developed ICT skill cannot render effective library services, thus, lack of skills among librarians constitute a major obstacle to service delivery in the 21st century.

Thus, the efforts of UNZA Library in providing modern information services are hindered by the existence of the aforementioned problems whose genesis is that of inadequate funding. It is therefore imperative that the aforesaid challenges are urgently and adequately addressed if quality service delivery is to be realized and appreciated by all stakeholders.

Envisaged innovative library services

With regard to the kinds of innovative services librarians would want the library to adopt in the near future; the study established that there was the need to introduce mobile technologies for enhanced service delivery, more e-books, digital literacy to all library users and systematic re-skilling of librarians so that they could be relevant in the existing information environment. The view of the respondents was that using more of these media platforms, can greatly help the library engage more of its users on issues of interest and enable them make inputs especially as it affects library services. This aligns with what Chitumbo and Chewa (2015) opined that academic libraries need to implement web 2.0 tools for improved service delivery.

Conclusion and implication for librarians

In general, this study investigates librarians' perception on innovative services that have successfully been implemented at UNZA. Therefore, the overall findings allow us to conclude that the emergence of ICT has brought a paradigm shift in the way UNZA Library delivers information to its users. This means that library services that were predominantly traditional have been transformed into modern ones with the help of ICT while new ones have been introduced. The present scenario poses an implication for librarians and the university management as a whole. The library must consolidate its gains in terms of innovation in order for the institution to remain relevant in this present age.

Recommendations

Based on the findings of the study, the following recommendations were made:

- UNZA Library should always be attuned to users' ever-changing information needs and continuously re-examine the relevance of current service offerings.
- When a library's offerings decline in importance and create a call for changes, library leadership should advocate for service innovation and encourage library employees to take risks and experiment.
- A dedicated innovation team with a high level of decision-making autonomy and dedicated resources should be created.

- Training of librarians in ICT should be given precedence. This is because the success or failure of an innovative service depends on the caliber of staff.

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