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DIGITAL COMPETENCIES NEEDED BY LIBRARIANS AND INFORMATION PROFESSIONALS FOR KNOWLEDGE MANAGEMENT OF 21ST CENTURY UNIVERSITY LIBRARIES IN BORNO STATE

ABSTRACT

The study determined digital competencies needed by librarians and information professionals for knowledge management of 21st century university libraries in Borno State. Three research questions guided the study. This study adopted a descriptive survey research design. The population of the study comprised 59 registered librarians in university libraries in Borno State. The whole population was used for the study because the size is considered manageable by the researcher. The instrument for data collection is questionnaire. The rating scale was titled “Questionnaire on Digital Competencies for Knowledge Management” (QDCKM). The instrument was sub-divided into three clusters. The instrument was face validated by two experts, was trial tested among 10 library professionals in Ahmadu Bello University, which not part of the study but shares similar characteristics with the study area. Cronbach Alpha was used to determine the internal consistency of the instrument. An overall co-efficient value of 0.72 was ascertained for the three clusters. In analyzing the data, mean standard deviation to answer the research questions. The finding revealed that information technology competencies, interpersonal competencies and leadership competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State. Based on the findings, it was recommended amongst others that libraries and information Professionals in Borno State should pool their resources together to create an awareness of the concepts of knowledge management in libraries since library and information professionals have been in the business of discovery knowledge, collaborating and sharing knowledge, gathering, filtering and analyzing knowledge.

Keywords: Competencies, Digital Competencies, Knowledge Management, 21st century libraries, Librarians, Information Professionals

INTRODUCTION

The emergence of Knowledge Management in libraries has contributed to a growing recognition at management level of the crucial importance of knowledge to the success of the organization. There is a vast amount of knowledge in various areas and its management is very vital in provision of quality information services, making effective decisions, improving the overall performance of the employee and becoming more relevant to their parent organization. Knowledge Management (KM) emerged as a result of some of the practices considered important, which are applied in both business, non-profit and public sectors.

According to International Federation of Library Association (IFLA, 2009), Knowledge Management (KM) is a process of creating; storing, sharing, applying and re-using organizational knowledge to enable an organization achieve its goals and objectives in terms of resources, documents and peoples skills. Rowley as cited in Uzohue and Yaya (2016) emphasized that, knowledge management is a system that facilitates learning, innovation and sharing knowledge assets to achieve the strategic objective of an organization. Operationally, KM is a combination of people, process and technology but the skills and expertise which are employee's knowledge are more important to organization.

Organizations that succeed in KM are likely to view knowledge as an asset and to develop organizational norms and values which support the creation and sharing of knowledge (Uzohue & Yaya, 2016). Mphidi and Snyman (2014) noted that converting personal knowledge into corporate knowledge for sharing purposes is the ultimate application of KM in an organization as this will reduce the risk involved in the loss of knowledge when the person leaves the organization. The main tool for information professionals to achieve their goals is technology as it is a critical tool in which the information professionals harness to accomplish their goals.

In the 21st century libraries, librarians and information professionals are expected to thrive in the digital environment where they will be actively involved in the acquisition, application, use and implementation of new technologies in their organization with their new skills and competencies to fit with their changing roles (Uzohue & Yaya, 2016). One must not forget in a hurry that competencies can be used to design and develop job postings, position descriptions, training and education programmes and performance evaluation programmes (Federal Librarian Competencies, 2008). Ferrari (2012) defined digital competencies as set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using

ICT and digital media to perform tasks; solve problems; communicate and manage information. Professional competencies required by library staff include digital communication skills, as much of our current communication with our users is now digitally mediated (Cooper, 2014). From the way libraries communicate with their users, their role as teachers/educators, to the delivery of new services such as institutional repositories, new digital skills/competencies are required by library staff (Gregersen, 2013). Trepanier (2012) defined digital competencies as the capability to use digital information systems including computer hardware and software to apply appropriate security measures and protect digital information. The development of a 21st century library requires adequate digital competencies to use the appropriate digital library software, apply OCR, assign metadata, acquire the knowledge to use a scanner for digitization and develop good, quality digital contents with high resolution (Raju, 2014).

Today, the changing role of information professionals has brought in new set of competencies and as such they must work harder to make themselves proactive and do their best to reaffirm competencies for the job at hand. Ugwu and Ezema (2010) in their study showed that librarians required skills for knowledge management strategies. Canadian Association of Research Libraries (2010) as well as Husain and Nazim (2013) highlighted the following professional skills needed by librarians and information professionals for knowledge management practices. They include: change management skills; interpersonal skills-communication, presentation and writing skills; record management skills; public relation/marketing; mentoring skills/coaching; leadership skills and strategic and restructuring skills; negotiation skill./decision making; teaching/learning skills; project management skills; collaboration/teamwork/partnership skills; information technology skills etc. therefore, for the purpose of this study, information technology competencies, interpersonal competencies and leadership skills are considered.

Information professionals should have an advanced internet and IT skills strategies that will give them the ability to find quality online resources, ability to troubleshoot and ability to provide reference services through e-mail and other social networking tools (Uzohue & Yaya, 2016). These Information technology competencies will enable the information professionals to guide users in intelligent information access, selection of source and resources and decisions on information application tools, technologies and policies for the organization. Makori cited in Uzohue and Yaya (2016) confirmed that technological innovations has affected the role and responsibilities of the information professionals, changed working relationship and communication patterns as well as provided additional functions and services to the existing information services.

Interpersonal competency is another digital competency which encompasses various skills. Information professionals must have the ability to get along, listen and interact positively with co-workers and clientele (Uzohue & Yaya, 2016). The authors further stressed that for them to exhibit their skills, they must be able to communicate effectively, conveying the importance of libraries to their users and parent institutions and empowering the users through training to be self-sufficient. They must be able to work effectively with face of change, making well informed decisions when faced with uncertainty, being a mentor to employees by providing useful advices collaborate and share knowledge, ideas and expertise with diverse population and feedback to new employees to help them attain success in their field. Information professionals with good skills and competencies markets, promotes their expertise, services, digital collection and facilities of the library to a variety of clientele and making case to the administration for the need to recognize library as a vital institution for research, teaching and learning.

Lastly, expectations for competence in management and leadership have increased dramatically. As leaders, academic librarians are expected to influence, motivate and challenge their colleagues and their community to advance library and institutional goals and objectives (CARL, 2010). Management skills are no longer expected only of those librarians in administrative positions. Rather, all librarians should understand the principles of budget planning, and facilities, staff and project management. Librarians holding management positions would be expected to develop their knowledge and skills in these areas to a higher level, to enable them to effectively manage the library and its resources (Uzohue & Yaya, 2016)

Following this, empirical evidences revealed that Seena and Pillai (2014) assessed the “level of ICT skill among library professionals in Kerala University Library system. The analysis revealed that the library professionals in Kerala University library have relatively average level skill in various ICT related tasks in libraries. All the professionals expressed a positive attitude toward the application of ICT in libraries. Selvantony, Lawrence and Raman (2014) examined the “various skills of library professionals in Engineering Colleges to determine the level of skills like low, high and moderate among library professionals in Tamilnadu. The findings show that in all the categories of Library staff, found more in the moderate skills and found less in the high skills among Librarian, Assistant Librarian, and Library Assistant. Sahu (2013) through survey has found that less number of respondents are having proficiency in Technical and interpersonal skill, networking, XML language, and project management skill, which mostly needed for the librarian in this current environment.

Mendez cited in Shakeel and Rubina (2016) highlighted that librarians should play their dynamic role in the emerging digital culture by demonstrating digital competencies needed for knowledge management to serve library users efficiently. Yakel cited in Shakeel and Rubina

(2017) explained that librarians with sufficient digital competencies will remain successful and relevant in working with modern information systems. Gorny, Catlow and Lewandowski (2010) were alarmed that librarians, who are not technically skilled, should perceive digital libraries as a threat to their employment. Unfortunately, informal observations and preliminary investigations revealed that in Borno State, university libraries have not shown desirable progress that matches up with 21st century digital libraries. Inadequate information technology (IT) infrastructure in libraries, lack of skilled professionals and budget constraints might be among the major causes of slow rate of desired progress in libraries in Borno State. In as much as these progresses are not desirable, there is need to identify essential digital competencies needed for knowledge management. It is also important to measure the extent to which digital competencies are needed by librarians and information professionals to address the challenges of digital librarianship. A review of the related literature showed that only very few study have been conducted on digital competencies needed by librarians and information professionals for knowledge management. This study attempts to fill this gap

Research Questions

1. To what extent are information technology competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?
2. To what extent are interpersonal competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?
3. To what extent are leadership competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?

METHODOLOGY

The study adopted a descriptive survey research design. The population of the study comprised 146 registered librarians (information professionals and library officers inclusive) in university libraries in Borno State, Nigeria. These universities include; University of Maduguri (61 registered librarians); Nigerian Army University, Biu (34 registered librarians) and Borno State University, Maiduguri (51 registered librarians). The whole population is used as sample size for the study because the size was considered manageable by the researcher. The instrument for data collection is questionnaire. The rating scale was titled “Questionnaire on Digital Competencies for Knowledge Management” (QDCKM). The instrument was sub-divided into three clusters. The instrument was face validated by two experts, was trial tested among 10 library professionals in Ahmadu Bello University, which not part of the study but shares similar characteristics with the study area. Cronbach Alpha was used to determine the internal consistency of the instrument. An overall co-efficient value of 0.72 was ascertained for the three clusters. In analyzing the data, mean standard deviation to answer the research questions. The criterion mean score was used as a benchmark for adjudging decision whether each competencies were Needed or Not Needed. Scores above 3.00 were considered as Highly Needed while mean scores below 3.00 were considered as Lowly Needed.

RESULTS

Research Question 1: To what extent are information technology competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?

Table 1: Respondents’ mean and standard deviation ratings of information technology competencies needed by librarians and information professionals for knowledge management

S/N	Extent to which the following information technology competencies are needed	X	SD	Remarks
1	Knowledge of basic structure and use of an integrated library system	3.59	0.82	Highly Needed
2	Knowledge of major trends in web development including social networking tools (Twitter, Facebook etc)	3.66	0.95	Highly Needed
3	Knowledge of how digital resources are acquired, managed and accessed	3.38	0.73	Highly Needed
4	Knowledge of the structure and the use of campus learning management system	3.20	0.94	Highly Needed
5	Understanding of principles of web page design and maintenance	3.03	0.99	Highly Needed
6	Understanding how databases are designed and structured for convenient data	3.59	0.72	Highly Needed
Grand Mean		3.40		Highly Needed

The result in Table 1 revealed that the grand mean of 3.40 shows that information technology competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State.

Research Question 2: To what extent are interpersonal competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?

Table 2: Respondents' mean and standard deviation ratings of interpersonal competencies needed by librarians and information professionals for knowledge management

S/N	Extent to which the following interpersonal competencies are needed	X	SD	Remarks
7	Working with others to arrive at mutually acceptable solutions	3.63	0.49	Highly needed
8	Working effectively in the face of ambiguity	3.47	0.50	Highly needed
9	Open mindedness to change and adaptation of work habits	3.36	0.48	Highly needed
10	Making well-informed decisions in a manner that is perceptive of the implications	3.45	0.50	Highly needed
11	Identifying problems, determining relevance and accuracy of related information	3.51	0.47	Highly needed
12	Using good judgment to come up with solutions	3.41	0.61	Highly needed

13	Possessing the ability to manage and resolve conflicts in constructive ways	3.39	0.59	Highly needed
14	Working with diverse groups in and out of the library	3.57	0.53	Highly needed
15	Providing useful advice and feedback to new members of the profession to help them attain success	3.07	0.67	Highly needed
16	Ability to speak in front of audience with or without technology	3.35	0.55	Highly needed
Grand Mean		3.42		Highly needed

The result in Table 2 revealed that the grand mean of 3.42 indicated that interpersonal competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State.

Research Question 3: To what extent are leadership competencies needed by librarians and information professionals for knowledge management in 21st century libraries in Borno State?

Table 3: Respondents' mean and standard deviation ratings of interpersonal competencies needed by librarians and information professionals for knowledge management

S/N	Extent to which the following leadership competencies are needed	X	SD	Remarks
17	Influencing and motivating other librarians to strive for excellence	3.46	0.59	Highly needed
18	Ability to adapt to a variety of working/learning styles	3.50	0.64	Highly needed
19	Understanding the principles of planning and budgeting in academic libraries	3.52	0.71	Highly needed
20	Understanding the principles of effective personnel practices and human resource development	3.47	0.79	Highly needed
21	Understanding how to assess the need for and to plan and implement new resources in light of current needs	3.15	0.68	Highly needed
22	Planning resources to successfully complete specific project objectives within a certain time frame	3.36	0.65	Highly needed
Grand Mean		3.41		Highly needed

The result in Table 3 revealed that the grand mean of 3.41 indicated that leadership competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State.

DISCUSSIONS OF FINDINGS

The finding in research question one revealed that information technology competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State. This finding was in line with the study of Corral, Kennan and Salo (2013) that university libraries takes ICT roles seriously in helping LIS staff and institutions manage an increasingly complicated research eco-system. This finding also supported the finding of Masrek, ohare, Saad, Rahim and Masli (2012) that 80% of library para-professionals had a good level of information teachnology skills. The finding of Grgic and Zivkovic (2012) revealed that 34.1% of IT skills were the most important general competencies and skills considered by librarians.

The finding in research question two revealed that interpersonal competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State. This finding agreed with the finding of Jeonghyun, Edward and William (2013) that 69% professional librarians possessed personal transferable and essential work skills. This finding also supported the finding of Masrek, ohare, Saad, Rahim and Masli (2012) that 80% of library para-professionals had a good level of interpersonal skills. The finding of Sahu (2013) opposed the finding in research question two that less number of respondents are having proficiency in technical and interpersonal skill which is mostly needed for the librarian in this current environment. The difference in both finding could result as difference in geographical location and different competency level possessed by the respondents.

The finding in research question revealed that leadership competencies are highly needed by librarians and information professionals for knowledge management of 21st century libraries in Borno State. The finding of this study disagreed with the finding of Tzoc and Millard (2011) that

information professionals lagged leadership competencies that are perceived as core competencies. Since leadership competencies are quintessential for knowledge management, it is important that librarians and information professionals are subjected to training and re-training programmes on leadership seminars and symposiums.

Conclusion

The present study has provided an understanding on digital competencies needed by librarians and information professionals for knowledge management of 21st century libraries. Based on the findings, it is concluded that digital competencies such as information technology, interpersonal and leadership competencies are highly needed for knowledge management of 21st century libraries in Borno State.

Recommendations

1. Librarians and information professionals must adapt to changes which demand skills and competencies in order to survive and remain relevant in this technology driven society.
2. The library management in Borno State should make it a rule that once a new ICT technology for accessing information resources is adopted in the library, a training programme must be organised for the library users, and manual on how to use such technology should be provided to guide the users.
3. Libraries and information Professionals in Borno State should pool their resources together to create an awareness of the concepts of knowledge management in libraries since library and information professionals have been in the business of discovery knowledge, collaborating and sharing knowledge, gathering, filtering and analyzing knowledge.

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