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APPRAISAL OF LIBRARY AUTOMATION PRACTICE IN COLLEGES OF EDUCATION LIBRARIES IN KANO STATE, NIGERIA

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ABSTRACT

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The paper discusses the role of information and communication technology (ICTs) in improving the quality of library services and in meeting user's information needs in a constantly changing library environment. On top of all, the paper explained the concept of library automation, factors to be considered for library automation and equipment needed as well as the benefit derives from the automation transformation. The paper also highlighted some of the challenges in inhibiting the successful implementation of automation in Nigeria libraries with special reference to the Kano State. The study was guided by four research objectives. Survey research method was used in conducting the study. The population of the study comprises the entire academic librarians in Colleges of Education in Kano State. Questionnaire was used for data collection. The returned questionnaire was analysed using descriptive statistics. The findings of the study revealed that majority of the services as indicated in the instrument were not automated and that automation equipments are grossly inadequate. The study suggested that the automation project should be embraced with proper planning by procuring the relevant ICT facilities and concentrates more on staff capacity building as well as provision of adequate funding to make the process more functional and reliable.

INTRODUCTION

Rapid development of information communication has changed the process of library operations dramatically. Library automation is the basic tool for effective and efficient service delivery in libraries of the 21st Century (college libraries inclusive). Library is a fast growing organism and the traditional ways of

managing it are inadequate and inefficient. Expeditious retrieval and dissemination of information for excellent service to the users could be absolutely possible and indispensable via the application of modern techniques. Automated library will help its customers with quick and prompt services (Neelakandan et al, 2010).

It has helped the libraries to keep pace with the latest development. This has also facilitated accuracy, flexibility and reliability in the library and information Centres. Automation of libraries reduces the repetitive work, save time, bring accuracy and enhance speed. It also increases efficiency in technical processing of library materials and improve the efficiency of library administration and management (Sanbighna and Malviya, 2012)

Library Automation refers to the application of computers and its related technologies in library operations such as acquisition, circulation, serial management, reference service among others. Fatuyi (1999) asserts that automation as "the use of the computer to efficiently acquire, store, retrieve and disseminate information to library users at a faster rate. He further adds that automation, as it implies is the application of automatic and semi-automatic data processing machines to perform library routines, due to larger amount of data requiring processing, coupled with the increasing demands made from library users. Mohammed (2006) viewed Library Automation is the application of modern technology to information handling in libraries from collection development to delivery of all knowledge products and services to its patrons and clients in an efficient and effective way.

Statement of the Problem

The rapid increase in the volumes of information generated and utilized nowadays and its concomitant problems of information explosion in every field of human endeavor has made it impossible for any library to employ traditional techniques but to transform to library automation techniques and services. The inadequacy of traditional library services

and tools in coping with the detailed requirements of identifying information pertinent to a given problem has forced libraries to automate their functional service areas (Mohammed,2006).Do the college libraries in Kano State, Nigeria automate their services? What are the challenges they face?

Objectives of the Study

The general objective of this study is to evaluate or assess the state of library automation in college libraries in Kano state, Nigeria. In specific terms, the study has the following objectives:

1. To find out the services automated of colleges of education in Kano States
2. To discover the adequacy of the automation and internet equipments of colleges of education in Kano States
3. To find out the personnel and training needs in library automation development of colleges of education in Kano States
4. To find out the likely challenges hindering the transformation the automation by the libraries of colleges of education in Kano States

Review of Related Literature

There is a wide gap between level of automation of University Libraries and College Libraries in Nigeria. Unlike the known efforts of the National Universities Commission (NUC) in computerizing libraries, little or no effort is made by the National Commission for Colleges of Education (NCCE) along this direction. NCCE is the regulatory body for all colleges of education nationwide. Assessing the level of development of Libraries Automation and Virtual Libraries in colleges, Gbadamosi (2011) notes that library automation and Virtual Library are yet to be given adequate attention they deserve by various institutions.

Though, it is hereby noted that the Federal Government of Nigeria through the National Communication Commission (NCC) under Millennium Development Goals Programmes (MDGS) initiated computerization projects to cover colleges of education nationwide (Gbadamosi, 2011). Jayaprakash and Balasubramani (2011) noted that most of the libraries, in initial stage of their computerization, assign priorities on library house-keeping activities, as these activities are most rudimentary to make the foundation of automation stronger and the success of other advanced services depends heavily upon these activities. Egunjobi and Awoyemi (2012) stated that automation enables easy access; that is users are able to search for materials within the library and from remote locations via search items as author, title, subject, call number and keyword and allows library staff to better serve users and facilitate a multitude of tasks. The study revealed that, the filling of slips for charging of books were things of the past; books are just scanned during borrowing.

Library automation cannot be possible without the necessary technological infrastructures. Onoriode & Ivwighreghweta (2011) listed modern technologies for library operation to include computers i.e. desktops, laptops, i-phones, i-pad etc, other includes peripheral like keyboards, speakers, bar code readers, printers etc. networking equipments and cables like Cat-5, coaxial, fiber optics and their various connectors, routers, switches, satellite and their modem. Software like Operating System (OS), Application and Utilities Software are part of modern technologies used in academic libraries. According to Jensen (2010) pointed out that “bandwidth is the life-blood of the world’s knowledge

economy, but it is scarce where it is most needed in the developing nations of Africa which require low cost communications to accelerate their socio-economic development. Few schools and public libraries on the continent have internet access.” Internet connectivity in tertiary education institutions in Africa is in general too expensive, poorly managed and inadequate to meet even basic requirements. As the recent Africa Tertiary Institutions Connectivity Survey (ATICS) reported that the average African university has bandwidth capacity equivalent to a broadband residential connection available in Europe, pays 50 times more for their bandwidth than their educational counterparts in the rest of the world, and fails to monitor, let alone manage, the existing bandwidth (ATICS, 2005). As a result, the little bandwidth that is available becomes even less useful for research and education purposes. Libraries without Internet access may lose their relevance in the academic community. Most students, lecturers, and researchers are aware of what Internet provides, and they resort at a much greater cost to cybercafés to satisfy their information needs (Ajala, 2007).

Why libraries automate their services

Santosh (2011) identified the following reasons on why libraries automate their services. These are:

- ✓ Information Explosion (Growth of document)
- ✓ Lack of space.
- ✓ To save the time of the reader.
- ✓ To improve the control over collection.
- ✓ To avoid the duplication of work.
- ✓ Greater efficiency.
- ✓ Accuracy and promptness
- ✓ To share the resources through computer networks nationally and internationally.

Supporting this assertion, Dhanabhai and Patel (2013) opined that library automation have the following benefits:

- ✓ Larger data can be handled with ease and accuracy
- ✓ Operates at a great speed and promptness
- ✓ High rate and better quality in performance
- ✓ Labour saving
- ✓ Cost effective
- ✓ Ease in functioning
- ✓ Avoids/eliminates duplication of work
- ✓ Greater manipulation possible.

Like any human activity, library automation is facing many challenges particularly in developing countries. Raval (2013) opined that library automation problems are technological, economical and attitudinal. Technological problems include both the hardware and the software problems of library automation. Economical problem are also faced by each and every library in all over the world. Boateng, Agyemang, and Dzandu, (2014) confirmed that a critical review shows that most libraries in Africa faced automation problems due to the lack of funds, reluctance among staff to use ICT, lack of trained staff as well as erratic power supply. On the other hand, few libraries are faced with challenges such as lack of commitment by institutional management, serious technical problems encountered and software not being user friendly. Manjunath (2008) identified the barriers to library automation which comprises of the following:

- ✓ Fear of adverse impact on employment
- ✓ Apprehension that the technology could be too expensive
- ✓ The library staff has to undergo extensive training.

- ✓ Lack of support from the management, may be owing to budget constraints
- ✓ Fifth reason could be retrospective conversion of data.

In implementing library automation Ani (2005) identified three influencing factors which include staffing/human capacity building in ICT, level of computerization and level of infrastructure. He further stressed that despite the rising awareness and the springing up of cyber cafés and internet services in the urban Centres in Nigeria, academic library automation and virtual library development are still very slow. Manjunath (2008) attested to this when he submitted that though library automation was very fundamental, it is yet to take off in majority of Indian libraries. He justified the need for library automation as more than cost effectiveness the benefits derived by the library users.

METHODOLOGY

Survey Research Method was adopted for the study. The population of the study comprised of the entire Academic Librarians in Colleges of Education in Kano state, Nigeria. The total population of the academic librarians in all the three Colleges of Education in Kano State is nineteen (19). The instrument used for data collection was questionnaire. Out of the 19 copies of the questionnaire administered to the respondents, a total of 17 (89.5%) copies were returned duly completed and found usable for this study. The data collected for this study were presented and analysed using descriptive statistics. Therefore, frequency counts and simple percentages were used to analyses the data collected

RESULTS AND DISCUSSION

Out of the 19 copies of the questionnaire distributed, 17 copies were duly completed

and returned and found usable, giving a total of 89.5% response rate. The findings of this study are presented in tables 1-4

Table 1.0: Library Services Automated in Kano State Colleges of Education Libraries

COLLEGES OF EDUCATION								
SERVICES	RESPONSES							
	SRCOE		FCE, KANO		FCET, BICHI		Total	
	F	%	F	%	F	%	F	%
Acquisition	0	0.0	0	0.0	0	0.0	0	0.0
Circulation	0	0.0	0	0.0	0	0.0	0	0.0
Serial management	0	0.0	0	0.0	0	0.0	0	0.0
Technical service	2	11.7	4	23.5	5	29.4	11	64.7
Reference	3	17.6	2	11.7	3	17.6	8	47.1

Table 1 above it was discovered that out of five services indicated in the research instrument (acquisition, circulation, serial management, technical services and reference), the respondents identified only two services automated in college of education libraries in Kano States. The services automated are technical services which have the highest frequency of 64.7% followed by reference service with least frequency of 47.1%. This findings corroborate with Egunjobi and Awoyemi (2012) who pointed out that automation enables easy access; that is users are able to search for materials within the library and from remote locations via search

items as author, title, subject, call number and keyword and allows library staff to better serve users and facilitate a multitude of tasks. Whereas, acquisition, circulation and serial management recorded 0.0% with regards to automation project practice as response scored by academic librarians studied. Raval (2013) opined that the library automation problems in some different point of views are technological, economical and attitudinal problems. Technological problems include both the hardware and the software problems of library automation.

Table 2.0: Adequacy of Automation and Internet Equipments

EQUIPMENTS	COLLEGES OF EDUCATION																	
	RESPONSES																	
	SCOE, KANO						FCE, KANO						FCET, BICHI					
	VA		U		IA		VA		U		IA		VA		U		IA	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Computers	1	5.9	2	11.7	2	11.7	2	11.7	0	0.0	3	17.7	1	5.9	1	5.9	2	11.7
V-sat	0	0.0	1	5.9	4	23.5	1	5.9	0	0.0	4	23.5	2	11.7	1	5.9	2	11.7
Bandwidth	1	5.9	2	11.7	2	11.7	0	0.0	1	5.9	4	23.5	0	0.0	1	5.9	5	29.4
Generators	1	5.9	2	11.7	2	11.7	1	5.9	2	11.7	3	23.5	1	5.9	2	11.7	3	17.6

KEY: Very Adequate – Undecided – In- Adequate

Table 2 above showed that computers were found in almost all the three colleges of education libraries studied with highest frequency of over 11.7%, 17.7% and 11.7% respectively. To derived maximum benefit from automation project adequate hardware and software technology in addition with technical know how as the pre-requisite condition to be able to execute the automation project well. However, V-sat were also inadequate in Sa'adatu Rimi and Federal College of Education, with highest frequency of over 23.5% and 23.5% responses scored by

academic librarians the college of education libraries studied. Surprisingly, the academic librarians in Federal College of Education Technical, Bichi ascertain the adequacy of V-sat in their library with highest frequency of 11.7%. However, Bandwidth and generator were found in adequate for automation practice a situation which is directly affecting the project. Despite the ugly situation of the automation practice in some college of education libraries still other are appreciating the adequacy of bandwidth and generators as shown in table 2.0

Table 3.0: Library Automation Training Needs of Librarians

Types of Training	COLLEGES OF EDUCATION																	
	RESPONSES																	
	SCOE, KANO						FCE, KANO						FCET, BICHI					
	VA		U		IA		VA		U		IA		VA		U		IA	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
In house training	0	0.0	0	0.0	5	29.4	2	11.7	1	5.9	3	23.5	2	11.7	0	0.0	4	23.5
Sponsored conference	0	0.0	0	0.0	4	23.5	2	11.7	1	5.9	3	23.5	2	11.7	1	5.9	3	17.6
Self development	0	0.0	1	5.9	4	23.5	3	17.6	1	5.9	2	11.7	0	0.0	2	11.7	4	23.5
Formal computer training	1	5.9	3	17.6	1	5.9	0	0.0	1	5.9	5	29.4	2	11.7	1	5.9	3	17.6

KEY: Very Adequate- Undecided- In- Adequate

Table 3 above showed that In house training was not been given the needed attention in almost all the three colleges of education libraries in Kano with highest frequency of over 29.4%, 23.5% and 23.5% respectively. However, sponsorship for Conference, Workshop and Seminars in relation to Automation practice the situation was also very low as indicated by the academic librarians in the institutions studied. Perhaps, the academic librarians in Federal College of Education, Kano and Federal College of Education Technical, Bichi were sponsored to attend for

professional training as workshop, conference and seminars which were ranked very adequate with highest frequency of 17.6% scores. Similarly, Self Development was ranked in adequate with highest frequency 23.5%, in SRCOE, Kano and FCET, Bichi. Contrastingly, it was recorded very adequate in FCE, Kano with highest frequency of over 17.6%. More so, Formal Computer training was also recorded in adequate with highest frequency of over 17.6% and 29.4% scored by academic librarians respectively.

However, formal computer training was recorded very adequate in Federal College of Education Technical, Bichi with highest

frequency of over 11.7% responses scored by academic librarians in Colleges of Education in Kano state.

Table 4.0: Challenges to Automation in College of Education Libraries in Kano State

COLLEGES OF EDUCATION								
CHALLENGES	Responses							
	SRCOE		FCE, KANO		FCET, BICHI		Total	
	F	%	F	%	F	%	F	%
Power supply	3	17.6	3	17.6	4	23.5	10	58.8
Funding	5	29.4	6	35.3	6	35.3	17	100
Lack of ICTs facilities	4	23.5	3	17.6	4	23.5	11	64.7
Lack of awareness	5	29.4	4	23.5	5	29.4	14	82.3
Lack of managerial support	4	23.5	3	17.6	2	11.7	9	52.9
Lack of ICTs skills	3	17.6	6	35.3	6	35.3	15	88.2
Occasional damages of facilities	5	29.4	4	23.5	6	35.3	15	88.2
Lack of good maintenance	4	23.5	5	29.4	6	35.3	15	88.2

Table 4 above revealed that funding, lack of good maintenance culture, occasional damages of facilities, and lack of awareness were the major challenges to the successful implementation and adoption of automation project in Kano State Colleges of education libraries with highest frequency of 100%, 88.2%, 88.2% and 82.3% responses scored by the academic librarians. On the other hand, it was observed that lack of ICTs, lack of managerial support and poor power supply with least frequency of 64.7%, 58.8% and 52.9% responses scored by academic librarians in colleges of education in Kano State.

CONCLUSION AND RECOMMENDATIONS

Automation in this electronic age is the fastest means and the most economical way the College of Education Libraries can embrace and demonstrate their commitment to meet the yearning and aspiration of their customers for quality teaching, learning and research exercise. Similarly, library automation practice it could also be seen as the indispensable factor in meeting library endless customers information demand at the same time it is right step forward to

digitizing and networking the activities of the entire routine of Colleges of Education libraries to make it resources readily accessible any time any where. This could be achieved, if proper planning and adequate ICT infrastructure are deployed, relevant staff capacity building are provided and in addition with adequate funding.

RECOMMENDATIONS

In line with major findings and conclusion reached on this study, the following recommendations were made:

1. The management of Colleges of Education studied should as a matter of urgency embrace the automation project with proper and adequate planning to procure relevant ICT infrastructure to make the project a successful one.
2. ICT capacity building through staff training and development should be provided.
3. Automation is a capital intensive project as such; adequate funding is needed to make it more functional and relevant.

REFERENCES

- Aguolu, C.C. Haruna, I and I.E. Aguolu (2006) "The Impact of Technology on Library Collections and Services in Nigeria," in the Impact of Technology on Asian, African and Middle Eastern Library Collections, Sharma R. (ed) Lanham, Md.: Scarecrow Press.
- Ajala, I.O. (2007). Internet Awareness, Accessibility and use by undergraduate and Postgraduate Students in Nigeria Universities: A Case Study of LAUTECH, Ogbomoso, Nigeria. *The Information Technologist* 4 (2): 147-162.
- Ani, O. E. (2006). Evolution of Virtual Library in Nigeria: Myth or Realities. *Journal of Information Science*, 31(1), 66-70.
- Boateng, H., Agyemang, G. F. and Dzandu, M. D. (2014) The Pros and Cons of Library Automation in a Resource Challenged Environment: A Case Study of KNUST Library. *Library Philosophy and Practice (e-journal)* retrieved on 20th June, 2014 from <http://digitalcommons.unl.edu/libphilprac/1061>
- Dhanabhai S. R. and Patel, M.G. (2013) Automation in Libraries. *Global Research Analysis*,
- Egunjobi, R.A. and Awoyemi, R. A. (2012). Library automation with Koha, *Library Hi Tech News*, 29(3)
- Ezomo, E.O. (2006). Collection Development in an Automated Environment. A Compendium of Papers Presented at the 2006 National Interactive Seminar, National Library of Nigeria, Jos, 2 nd -5 th May.
- Fatuyi E.O.A. (1999). Effect of Computer Technology on the Organization of Publications and Information. Workshop on Reference Services Organized by M.A Research information consultant services held at N.A.E.R.L.S, Zaria August 3rd - 11 September 1 st
- Gbadamosi, B. O. (2011) Assessing Library Automation and Virtual Library Development in Four Academic Libraries in Oyo, Oyo State, Nigeria *US-China Education Review*, 8 (5).
- Jayaprakash, M. and Balasubramani, R. (2011). Status of Automation in University Libraries of Tamilnadu: A Survey *European Journal of Scientific Research*, 53(1).
- Jensen, M. (2010). Open Access: Lowering the Costs of International Bandwidth in Africa, APC Issue Papers. Accessed on April 02, 2013 from http://www.researchictafrica.net/images/upload/open_access_EN.pdf.
- Library science 2 (1) Retrieved on 13th June, 2014 from
- Manjunath, G. K. (2008). *Library Automation: Why and how?*. Retrieved April 18, 2014, from <http://www.igidr.ac.in/lib/paper1.html>
- Mohammed, A. (2006). Automation in Nigerian University Libraries: Problems and Prospect. *Journal of Educational Services*, 2 (1)
- Neelakandan.B, Duraisekar. S, Balasubramani. R, Srinivasa Ragavan.S (2010) Implementation of Automated Library Management System in the School of Chemistry Bharathidasan University using Koha Open Source Software *International Journal of Applied Engineering Research*, Dindigul I (1)
- Onoriode .K. and Ivwighreghweta .O. (2011). Technologies for Library Automation: Knowing the Tool for Library Innovation. A Paper Presented at the NLA Delta Conference in Agbor
- Raval, A. M. (2013) Problems of Library Automation. *International Journal for Research in Education* retrieved on 12th June, 2014 from www.raijmr.com
- Sanbighna S R and Malviya R N (2012) Review on Automation of Academic Libraries in India: Status Problems and Future *International Journal of Research in Social Sciences and Humanities* 1 (4) retrieved on 17th June, 2014 from <http://www.ijrssh.com>
- Santosh, G.V. (2011) *Indian Streams Research Journal: Library science* 2 (5) Retrieved on 10th June. 2014 from