

Current Status of Automation in Academic Libraries in Osun State, Nigeria

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Abstract

Purpose: *This paper investigated the current status of library automation, software and modules used as well as barriers towards the implementation of library automation in academic libraries in Osun state, Nigeria.*

Design/methodology/approach: *The major data gathering tool was questionnaire while observation and informal interview through phone calls were used to verify some of the information given by the respondents. A questionnaire each was sent to Systems Analyst/Librarian in charge of automation in the 16 libraries in Federal, state and private institutions in Osun State, out of which 13 representing 81% responded. Data collected were analyzed using frequency counts and percentages and were presented in tables*

Findings: *The paper found that out of 13 higher institutions surveyed, 7 libraries have been automated while the remaining libraries are planning to do so. It was also found that 5 universities and 2 polytechnics libraries were automated while none of the colleges of Education libraries in the state were automated.*

Originality/value: *Many studies have been conducted on library automation in Nigeria but none have surveyed the status of library automation in academic libraries in Osun State Nigeria. This paper therefore reveals the current status of library automation in academic libraries in Osun state, Nigeria. This study also provides statistical data on current status of library automation, type of library software used and number of modules used by academic libraries in Osun State, Nigeria.*

Keywords: *Nigeria, Osun State, Library automation, Academic libraries, Library Software*

Type: *Research paper*

Introduction

There are large amount of information being generated on daily basis and it is the duty of Librarians to make these information accessible to users. Information processing and services has change from the traditional ways of handling information and there is a need for library to meet up with the new ways of processing materials and meet the diverse information needs of users. Today, the emphasis is on information access; libraries must ensure that users are able to access information with ease and without waste of time. The traditional methods of processing, storing and disseminating information can no longer satisfy users' needs because they now have access to the internet and if libraries and librarians are not careful, the huge crowd in the library will reduce drastically and librarians will be out of job. As a result Librarians cannot be indifferent to the changes brought to library operations and services through automation. For libraries to perform their functions of supporting the institutions

learning and research and provide access to quality academic information to both staff and students, automation of library operations and services is inevitable.

It is no gain saying that automation of library operations and services saves both the library staff as well as users' time. In Integrated Library Software, once a book is entered through acquisitions modules, same data can be used in cataloguing and circulation. This saves the time of cataloguers as only the physical descriptions, subject headings and the call mark would be added, all the data entered through acquisitions and cataloguing modules can be access by users from Online Public Access Catalogue (OPAC). The OPAC saves time of users in that within seconds they can access library records unlike the traditional card catalogue which is cumbersome. At circulation, it is just to scan the barcode of the book into patron's account while due date are automatically generated and book is issue to the borrowers. In spite of all the benefit automation brought to libraries, some libraries are still struggling with the implementation

of automation process while some are not even considering it at all. It is against this backdrop that this study is conducted to look into current status of library automation in academic libraries in Osun state, Nigeria.

Objectives

The main objective of the study is to investigate the current status of library automation in academic libraries in Osun state Nigeria. The specific objectives are to:

1. determine the automation status of academic libraries in Osun State, Nigeria.
2. ascertain the type of integrated library software used for library operations by academic libraries in Osun State, Nigeria.
3. find out modules used and determined the level of automation of academic libraries in Osun State, Nigeria.
4. identify academic libraries that provide web OPAC and online services.
5. Identify challenges faced by the academic libraries in Osun State Nigeria on library automation.

Literature Review

Library automation is the application of computers to the library operations which is previously performed manually. Several studies attested that library automation has improved the manners and ways of handling information in libraries; for example, Okiy (1998) stated that the application of computer technology to university libraries has transformed the pattern of information handling, provision of services and the perception in library cooperation worldwide. Singh (2003) stated that things are changing for the better as library automation in academic libraries is now being regarded as an urgent need. The author confirmed that there used to be a queue of more than 100 students before automated circulation started but now the use of barcodes had made the life very simple due to added accuracy and speed. The author further stated that speeding up the issue/return, printing reports; sending reminders also become very easy. Patra (2008) also acknowledged that ICT has transformed academic library and that traditional role of providing information has also changed. Rana (2009) opines that ICT holds the key to the success of modernizing information services, not only does ICT introduces new ways of information handling, it also bring about change in the structure of information and its communication.

Status of library automation in Nigeria had been reported by several authors. Among them are Ogunrombi (1985); Akintunde (1999); Idowu and Mabawonku (1999); and Ossai-Ugbah and Ogunrombi (2013). They established that application of ICT to library automation in Nigerian University libraries started in the eighties and in the nineties. For instance Ogunrombi, (1985) reported that University of Ilorin started in 1983, Ossai-Ugbah and Ogunrombi (2013) also reported that Kashim Ibrahim Library of Ahmadu Bello University (ABU) Zaria started automation in the 1980s. Akintunde (1999) stated that automation process of library services at the University of Jos started in the 90s. Idowu and Mabawonku, (1999) also reported that University of Ibadan Library started her automation in 1994 using TINLIB, Adegboro (2010) recounted that automation started in 1994 in NimbeAdebimbe Library of Federal University of Agriculture Abeokuta with TINLIB and the library migrated from TINLIB to GLASS. The author also reported that Olabisi Onabanjo University Library Ago-Iwoye started her automation in 2000 using Alice for window software. Otunla and Akanmu–Adeyemo (2010) gave an account of automation process in Bowen University Library. The authors explained that Bowen University Library automated her operations in 2007 using Koha Integrated Library Systems Software. Despite the early adoption of automation in Nigerian academic libraries, many academic libraries are still struggling to automate their services today while some of the early adopters have been migrating from one library software to another due to failures recorded. For example, Ogunrombi (1985) reported that University of Ilorin automates their library in 1983 using APPLE II but suffered a major setback.

In spite of various setbacks and experiences by libraries in Nigeria, some libraries still recorded success in their automation projects. For instance, Otunla and Akanmu–Adeyemo (2010) recounted automation process of Bowen University Library, Iwo and explained that as a result of automation,

library operation and provision of information services are enhanced and images of Librarians boosted. The authors further reported that library users preferred automated system to manual system. Adegboro (2010) finding shows that 70% of the research population attested to the assumption that as opposed to traditional system, automation makes information retrieval very easier and faster, thus, the author advised that it is incumbent that Nigerian university libraries be automated. Eyo and Nkanu (2011) also acknowledged that the processing of the list of books/journals for subscription by acquisition librarian is faster and accurate with computers. The authors further stressed that computation of the financial implications for subscription of library materials (books/journal) is most effectively and efficiently done relatively with computers than is possible manually. Mutula (2012) described the experience of library automation in University of Botswana Library. The author stated that impart of the automation project has brought increased access to diversity of e-resources, enhance image of Librarians, introduce new services, freeing library physically space, users' satisfaction and transformation of the library into a learning and research hub, to mention a few. Ogunmodede, Nwokocha and Apata (2014) also found that automation is changing positively the way bibliographic details are being created and displayed and that cataloguing is now quicker with the automated system. The findings further revealed that respondents preferred automated system to the manual system.

While some academic libraries in the university were making effort to engage in automation projects, colleges of education were making little or no effort at all. For example Adebayo (2007) study compared library automation between Federal and State Colleges of Education in Nigeria and surveyed 58 Colleges of Education. The findings revealed that 98% of State Colleges of Education and 85% of Federal Colleges of Education indicated that no section of their libraries was automated; as a result the author concluded that Colleges of Education in Nigeria are not automated. Also Gbadamosi (2012) stated that there is a wide gap between level of automation and computerization of university libraries and college libraries in Nigeria.

Most of the library automation software comes with different modules that can cater for all the

library operations previously performed manually. Surprisingly, some libraries found it difficult to use all the modules. Research has shown that libraries mostly used the cataloguing modules and circulations modules while acquisitions and serials modules are rarely used. For instance, Singh, (2003) found that use of computers in acquisition remains a low priority area in India. The finding further shows that not many libraries are using computers in acquisitions. The author stated further that idiosyncrasies involved in serial control affects the use of computers in serial control and hence the area is not very well represented. Issa, Ayodele, Abubakar and Aliyu (2011) studied application of Information Technology to Library Services at the Federal University of Technology, Akure and reported that IT is being used partially on all the housekeeping chores of the library; the findings further reveals that automation are still complemented with manual operations. Rosenberg (2005) cited in Abbas (2014) conducted a survey of African libraries and the findings revealed that of the 40 libraries surveyed, majority of them (65%) are yet to complete the process. Most libraries began with cataloguing, but have neither finished that nor moved to other process, 21% are yet to start while 15% considered that they are fully automated. In a recent study of application of information and communication Technologies (ICTs) to library operations and routines in selected Nigerian Federal University Libraries by Whong and Zakari(2014), the study found among others that ICT facilities are frequently applied in cataloguing and classification of information resources with a score of 250 (74%). Also, in a study by Abbas (2014), it was found that all the modules are partially implemented in ABU, Zaria while only cataloguing module have been completed at University of Ibadan Library. The findings further reveal that University of Ibadan Library's acquisitions and serials modules are partially implemented while reference and circulation modules are still at proposal stage.

Library automation with connection to the internet has made it possible for many libraries to provide services to their users remotely as they are now connected to the internet having their own web page or through their parent institutions. Osundina (1973) cited in Issa, Ayodele, Abubakar and Aliyu (2011) stated that the library of today should not merely store

documents and preserve them; it must also devise means by which the contents of such documents can be rapidly and effectively transmitted for use. Singh (2003) also suggested that libraries should use internet facilities to the best of their capability and that they should provide links to similar type of libraries through web pages. The author added that libraries can design e-gates where user can have access to the electronic resources through a common user interface. Otunla and Akanmu-Adeyemo (2010) testified that automation has enable users to access the OPAC and e resources anywhere within and outside the University environment thereby enhancing the provision of library services. Jan and Sheikh (2011) finding revealed that all the university libraries under study have no separate website; the library link was attached with the main web page of the parent university. Abbas (2014) also acknowledged that university libraries must be automated to the level of being connected to the Internet.

Barriers militating against successful implementation of automation process in libraries had been identified by many authors. For example, Amekuede (1995) highlighted barriers militating against successful university library automation as financial problems, attitudinal problems, lack of co-operation among university libraries, hardware and software problems and personnel problems. Singh (2003) identified factors that directly or indirectly affect the progress of library automation in academic libraries in India to include management issues, resources available with the libraries, level of skill of staff, availability of suitable software, geographic location area. Mulla and Chandrashekara (2010) findings shows that out of 102 respondents 13.73% of the libraries were not automated for reasons which varied from library to library such as lack of computer facility, financial problems, lack of trained manpower and inadequate library collection. Adegbore (2010) findings show that the problem of ICT is associated to dearth of professionally

trained and unskilled staff in the two universities libraries studied. The findings further reveal that the level of short staffing is apparent while the little on ground have so little or no computer knowledge, which has posed a lot of technical problems to the automation exercise in the two libraries studied. Adequate funding seems to be the main barrier in library automation among others. For example, Ogunrombi (1992) reported that LAUTECH adopted and install TINLIB in 1991, however, the dearth of funds hampered the maintenance of the project. Lack of external support was also reported by Ossai-Ugbah and Ogunrombi (2013) that Kashim Ibrahim Library, ABU Zaria's automation effort in 1980s failed due to lack of external support to undertake an automation project. Regardless of all these setbacks, libraries especially academic libraries should continue to make effort in ensuring that all their library operations are automated.

Methodology

The study adopted descriptive survey research design. The population for this study is made up of all 16 automation librarians in the approved academic institutions in Osun state, Nigeria as at January 2014. The major Instrument used was questionnaire while observation and phone interview was used to verify some of the information given by the respondents. A copy of the questionnaire was sent to the person in charge of the automation or University Librarian/ College Librarian in the 16 academic libraries in federal, state and private institutions in Osun state. Thirteen Out of 16 academic libraries representing 81% responded. Data collected were analyzed using frequency counts and percentages, which were illustrated using figures and tables.

Analysis of Data

Figure 1 depicts that majority of respondents are from University library with 53.8%, Polytechnics 30.8% while colleges of Education have 15.4% response rate.

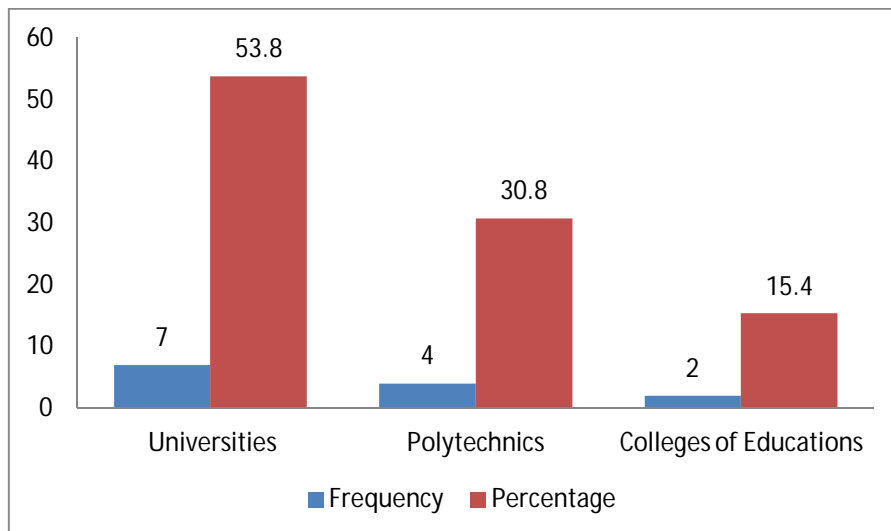


Fig.1 Distribution of Respondents by type of Institution

Figure 2 reveals that out of 13 higher institutions surveyed, only 7 (54%) libraries have been automated. The remaining libraries that are yet to be automated indicated that they are planning to automate their libraries. The findings also revealed that out of 7 libraries automated 5 are from university libraries while the remaining 2 are from polytechnic libraries. The two colleges of education in the state are yet to be automated. Other information provided by the respondents

show that 5 (71.4%) of the libraries had been automated between 1-5 years, while 2(28.6%) had been automated between 6 to 10 years. Also on provision for power backup, 5(71.4%) have either generator or inverter or both while 2(28.6%) indicated no power back up in their libraries. Further information reveals that lack of fund is the major barrier to automation process among libraries that are yet to implement automation in Osun state.

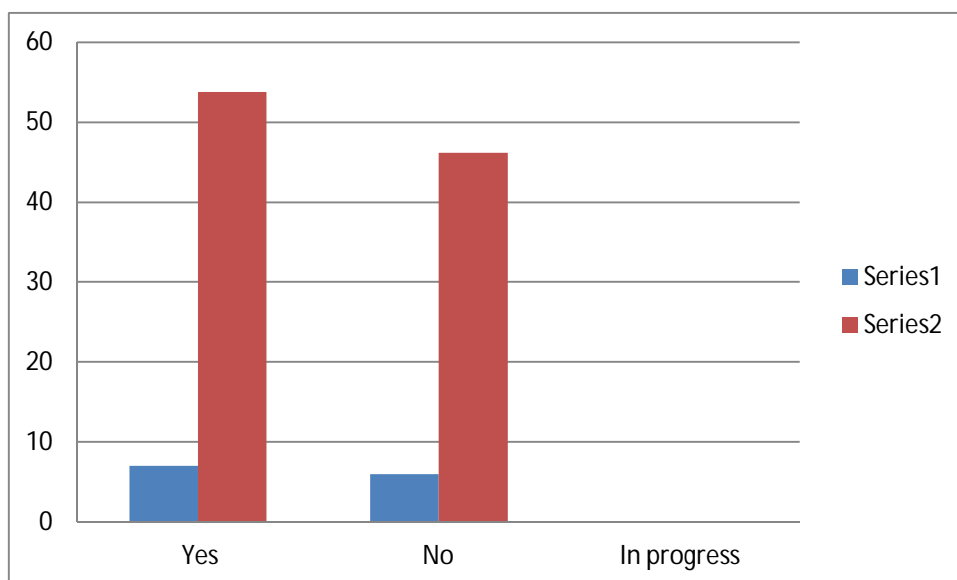


Fig. 2 Status of Automation in Academic Libraries in Osun State

The type of software used in the libraries surveyed is depicted in figure 3. The findings shows that 5 (71.4%) of the 7 libraries that had implemented automation process were using KOHA Library Integrated Systems Software while one library used VIRTUAL and the other one indicated an in-house software known as Qlink Digital Library as others. Additional

information by the respondents revealed that 2 (28.6%) of the respondents migrated from one software or the other before the current software they are using. The reason for migrating as indicated by the respondents was that the former software could not perform the functions they wanted and that they can no longer afford the high annual subscription rate to proprietary software.

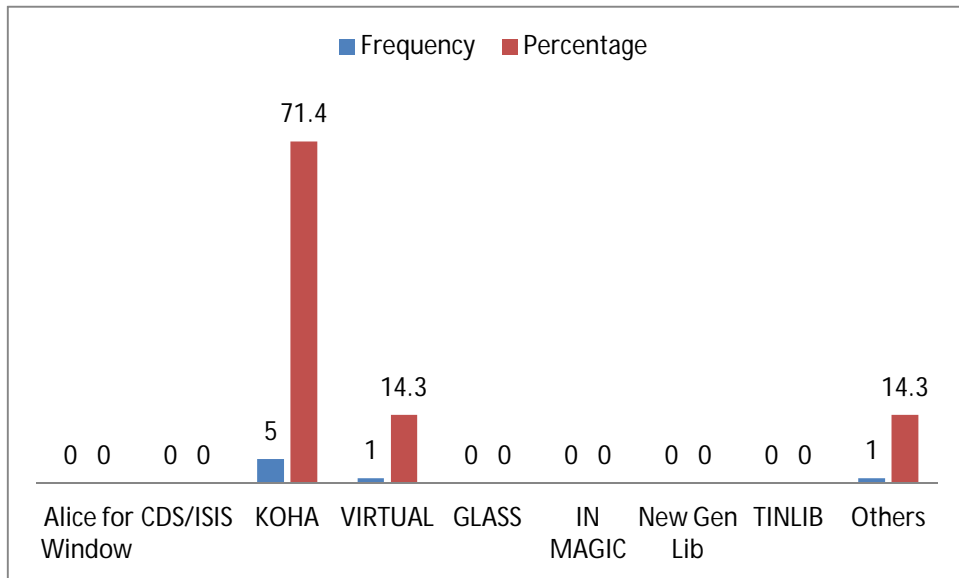


Fig. 3 Type of Library Software Used

Figure 4 shows that cataloguing module is well implemented by all the automated academic libraries in the state with 100% response rate. This is followed by circulation module with 5 libraries representing 71.4%, 2 (28.6%) had implemented acquisitions module while only 1(14.3%) had implemented serials module.

Further information provided by respondents revealed that only one library had completed the retro-conversion of their manual catalogue. The major reason indicated for non-implementation of some modules and the delay in completion of retro-conversion was that of inadequate number of staff.

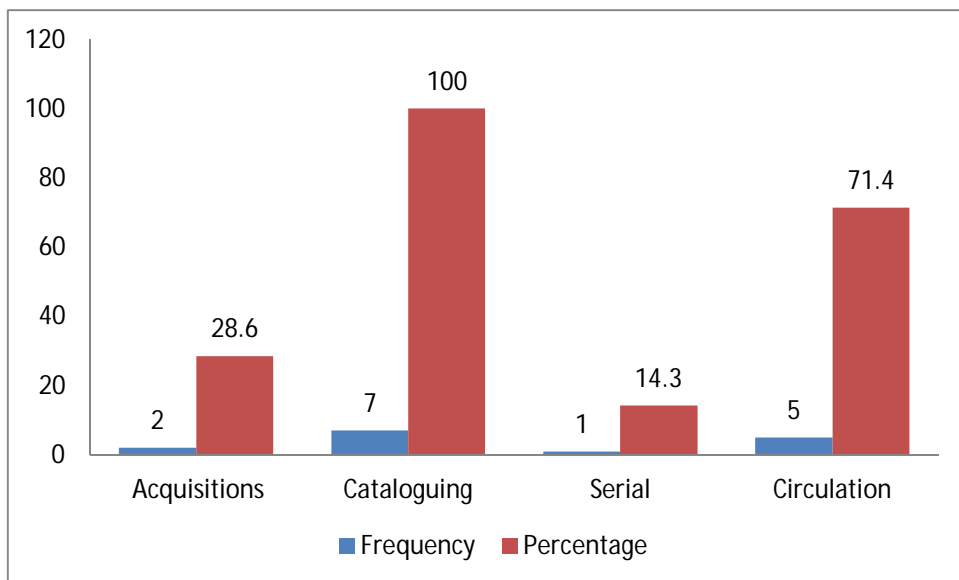


Fig. 4 Type of Module used

Level of Automation

The level of automation process in academic libraries in Osun state as at the time this study was conducted is depicted in Figure 5. Here, the study look at the level of automation based on the function of number of modules used, Web OPAC and availability of library services on the

internet to enable remote access. A visit to the web links shows that only one library is using all the modules and has Web OPAC that can be access remotely by users. Therefore only one library met the set criteria and as a result only one library representing 14.3% was fully automated, 5(71.4%) are partially automated

while 1(14.3.7%) was still at initial stage of automation. This is due to the fact that they are

either falling short of one or two of the set criteria.

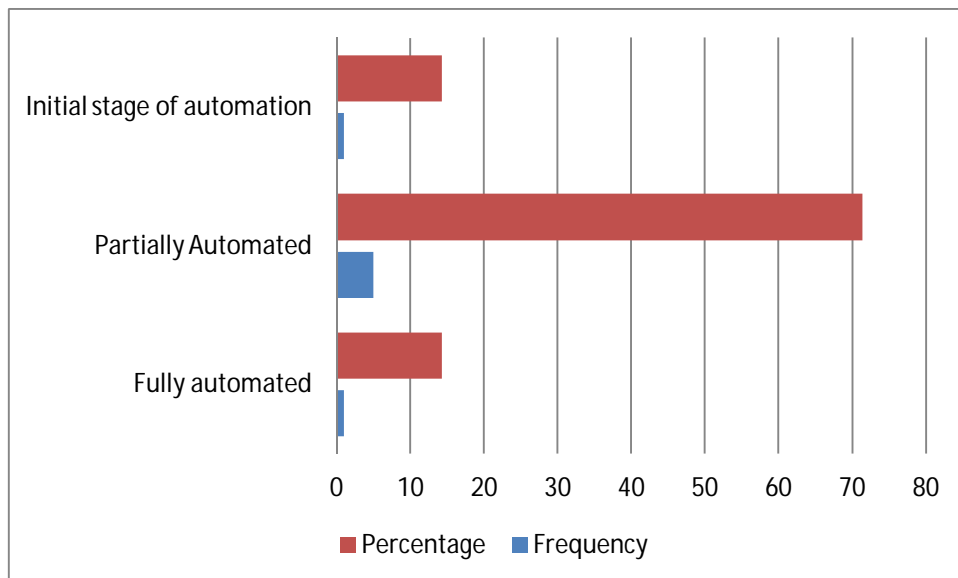


Fig. 5 Level of Library Automation in Osun State, Nigeria

Table 1 portrays problems encountered by academic libraries in Osun state on automation process. The result shows that insufficient fund is a common problem as indicated by 100% of the respondents. Librarian’s attitude towards automation is another impediment indicated by

84.6%, 76.9% indicated lack of specialized ICT staff and poor ICT skills among Librarians as constraints while hardware and software problems is the least problem encounter with 53.8% respondents

Table 1: Distribution of Respondents on Problem Encounter with Automation (multiple choices)

S/N	Statements	Frequency	Percentage
1	Insufficient funds to maintain the automation process	13	100
2	Librarian’s attitude towards automation	11	84.6
3	Lack of specialized ICT staff	10	76.9
4.	Poor ICT skills among Librarians	10	76.9
5.	Insufficient staff to carry out automation process	9	69.2
6.	Lack of constant power supply	9	69.2
7.	Hardware and software problems	7	53.8

Table 2 summarizes the automation process in academic libraries in Osun state as at January 2014. The table reveals the following findings:

- Out of 13 libraries surveyed only 7 were automated.
- Five (5) out of 7 libraries were using Koha Library Integrated Systems (a free and open source software) while Obafemi Awolowo University Library and Federal Polytechnic, Ede Library were using VIRTUAL and QLINK Digital Library(an in-house software) respectively.

- Only Bowen University Library is fully automated because the library uses all the modules, has Web OPAC as well as providing online services to users.
 - Bowen University Library and Obafemi Awolowo University Library have a direct link on the internet while Osun State University Library has a link through her parent institution. They all provide online services to their users.
- Table 2: Summary of Automation Status in Academic Libraries by institutions name in Osun State, Nigeria

Table 2: Automation process in academic libraries

S/N	Name of Institution	Type of Institution	Status of automation	Software used	Modules currently in use	Level of automation	Web OPAC	Web Link
1.	Adeleke University, Ede	Private	Yes	KOHA	cataloguing	still at initial stage	No	No
2.	Bowen University, Iwo	Private	Yes	KOHA	All modules	fully automated	Yes	Yes
3.	Fountain University, Oshogbo	Private	No	-	-	-	-	-
4.	Joseph Ayo Babalola University,	Private	Yes	KOHA	cataloguing and circulation	partially automated		
5.	ObafemiAwolowo University	Federal	Yes	VIRTUA	cataloguing and circulation	partially automated	No	Yes
6.	Oduduwa University, Ife	State	No	-	-	-	-	-
7.	Osun State University Oshogbo	State	Yes	KOHA	cataloguing only	Partially automated	No	Yes, through parent institution
8.	Esa- Oke College of Technology	State	No	-	-	-	-	-
9.	Federal Polytechnic, Ede	Federal	Yes	QLINK Digital Library	cataloguing acquisitions, and circulation	partially automated	No	No
10.	Igbajo Polytechnic, Igbajo	Private	No	-	-	-	-	-
11.	Osun state Polytechnic, Ire	State	Yes	KOHA	cataloguing and circulation	partially automated	No	No
12.	Osun State College of Education, Ila-Orangun	State	No	-	-	-	-	-
13.	Osun State College of Education, Ilesha	State	No	-	-	-	-	-

Discussion of Findings

Out of 13 institutions surveyed, 5 university and 2 polytechnics were automated while none of the Colleges of Education were automated. This finding indicates that Colleges of Educations are lagging behind by not considering automation process in their libraries. This finding corroborates Adebayo (2007) and Gbadamosi (2012) that Colleges of Education are not automated and there is a wide gap between level of automation and computerization of university libraries and college libraries in Nigeria. The result of this study also reveals that 5(71.4%) of 7 that were automated were using Koha Library Management Software, the other two were using VIRTUAL and Qlink Digital Library software. This shows that Koha Integrated Library Systems is widely been used in academic libraries in Osun state.

The study also found that automation is still been complemented with manual operation in

most of the academic libraries in Osun state because the finding shows that cataloguing module was well implemented by all the automated academic libraries in the state, 71.4% implemented circulation module, while acquisitions and serial modules were not well implemented. The findings further shows that only one library is fully automated because it met the set criteria; 5(71.4%) are partially automated while one is still at initial stage of automation. This finding confirms the findings of Singh (2003), Rosenberg (2005), Adegboro (2010), Issa, et al (2011), Abbas (2014) and Whong and Zakari (2014) that all the modules are partially implemented and that acquisitions and serials module are less used by libraries. This should not be, because the processing of a book or any other library materials start from acquisitions, then to cataloguing before it can be access via the OPAC and then borrow by users. The Integrated Library Systems make this process easier than manual processing, such that data entered in acquisitions module can be used

by cataloguers as well as in circulation. The circulation modules cannot work in isolation without the input of acquisitions and cataloguing sections. Serials module makes it easy to manage serial publication effectively than manual processing of serials. Librarians should not see any module as difficult to operate and thereby be afraid to use it; what is required is constant training. It is important for libraries to use all the modules if they want to experience full benefit of automation.

Two(2) out of seven (7) libraries have a web link, while one library has a link through the parent institutions. The findings further reveals that only one out of the three libraries has Web OPAC that can be access remotely by users. Singh (2003), Otunla and Akanmu-Adeyemo (2010) and Abbas (2014) acknowledged that libraries must be connected to the internet with their automation process. This study is in agreement with the authors that libraries should find a way of connecting to internet to enable remote access to their resources and services either through a separate webpage or through their parent institutions. It is therefore imperative for libraries to make their OPAC accessible through the internet and to enable users have access to library collections without physically being present in the library.

The result also shows that insufficient funds, Librarians attitude, lack of ICT staff, insufficient number of staff among others were the major constraints faced by the academic libraries in Osun state, Nigeria. This finding is in agreement with other studies conducted by Ogunrombi (1992), Amekuedee (1995), Singh (2003), Mulla and Chandrashekara (2010), Adegboro (2010) and Ossai-Ugbah and Ogunrombi (2013).

Conclusion and Recommendation

Automation enhances library routine and services therefore libraries should take automation process seriously. Librarianship of today has passed the stage of just arranging books on the shelves and expecting users to come, Librarian has to take a proactive step by taking library services to users if they do not want to be replaced by the internet. This can only be possible when library operations and services are automated and are available on the internet through a web page to enable faculty members as well as students access the library catalogue and use other services remotely

without necessarily coming into the library. It is widely acknowledged that automation enhances library operations and services therefore there is no excuse for any library not to engage in automation process now with the availability of different free and open source library software. Based on the above findings, the study recommends that:

- Academic libraries in Osun state especially College of Education libraries should be involved in automation process as this will help to improve library operations and services.
- Librarians should endeavour to use all the automation modules and not complement it with manual processing to enable them enjoy full benefit of automation.
- Academic libraries in the state should endeavour to connect to the internet either with a separate link or through parent institution. This is to enable them provide online services to users.
- The management of institution should support the library automation project through provision of adequate funding and meeting other library's needs.
- Librarians should have positive attitude towards automation. They should shift from old to modern day Librarianship as some of the users now prefer using the online information to coming to the library. It is important for any library to meet users' need irrespective of their location.

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