REASONS FOR INTEGRATED LIBRARY SYSTEMS (ILS) SWITCHING IN NIGERIAN UNIVERSITY LIBRARIES

By

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Abstract

Integrated Library System (ILS) switching is a very crucial project in the life of any library, and capital intensive. However, Nigerian university libraries have continued to switch ILS within a short period after deployment without reaping the cost of investment made in the first instance. This study sought to determine the reasons for switching ILS among Nigerian university libraries. A qualitative research approach using multiple case study design was used to gain a better understanding of the problem; purposive sampling technique was used to select the participants. Interview was the instrument used for data collection, and the researcher conducted five interviews with five (5) participants from university libraries across the geo-political zones of Nigeria. Data were collected from June 2016 through July 2016. The analysis of data was done using themes derived from the objectives of the study. Findings revealed that delay in getting vendors support to fix ILS problems, some ILS have limited storage space to accommodate large data, crashing and data loss, and political considerations, were some of the reasons given by Nigerian University Libraries for switching ILS. The study, therefore, recommended among others that Nigerian university libraries should conduct adequate and thorough feasibility study based on the peculiar needs of their libraries before selecting the appropriate library software, libraries should adopt and deploy open source ILS which are more cost effective and easier to maintain rather than buying proprietary ILS which were developed based on US and UK standards and which might not fit their needs. The study concluded that the switching over from one ILS to another by NUL studied is too frequent. The frequency of change is associated with lack of proper feasibility study and knowledge involved in determining the implications of frequent switching on the libraries.

Keywords: Reasons, Integrated Library Systems (ILS), Switching, Nigerian University Libraries

Introduction

University libraries are grappling with enormous challenges due to high turnover rate of Integrated Library Systems (ILS). In many organizations, Information Technology (IT) has become crucial in the support, sustainability, and growth of their businesses, university libraries inclusive. As the rate of publication increased, libraries realized that they could not process resources fast enough with traditional manual systems and that automation could be a way out which could also control costs on labour-intensive operations.

Library automation no doubt offers many opportunities to improve library services to patrons. It makes materials easier for patrons to locate as well as allow staff to serve patrons better by facilitating a multitude of tasks. For any automation process to commence, the choice of an appropriate Integrated Library System (ILS) has to be made which will drive the automation process. The adoption and implementation of Integrated Library System is expensive as opined by Gbaje and Murtala (2014), whereas the budget of most libraries is inadequate. Therefore, libraries cannot afford the huge repercussions as a result of frequent switching of Integrated Library Systems. In spite of the huge implications, as revealed by Raju, Moodley, Jagarnath, Chetty,

Shongwe, and Raju (2007) university libraries in Nigeria have a high turnover rate of Integrated Library System.

Many Integrated Library System packages are available in the Nigerian market. These includes Liberty, LIBS+(X-Lib), CDS/ISIS, TINLIB, GLASS, Alice for Windows, Innovative Millennium, Virtua, KOHA, Voyager and more recently NewGenLib. Libraries in developing countries such as Nigeria have depended on ILS imported from developed countries like UK and USA. These ILS are very expensive to purchase, maintain, implement and deploy. Implementing a new ILS, according to Deewil, (2013) is probably one of the biggest and most expensive projects undertaken in a library. Previous studies such as Omoniwa (2001), Bozimo (2006), Nok (2006), and Imo and Igbo (2011) clearly revealed that within a short span of time many university libraries have switched from one Integrated Library System to another without fully implementing and deploying the old system.

This pervasive use of automation software has created a critical dependency on the software by university libraries, these calls for a specific focus on reasons for switching Integrated Library Systems. Puekert (2010) posits that when a user changes a product it means that funds specific to the current product have to be duplicated. This notwithstanding, organizations are regularly confronted with the decision to renew an existing contract or evaluate the market and switch products.

Problem Statement

One of the most crucial decisions in library automation is the choice of an appropriate Integrated Library System. Having taken such crucial decisions to adopt specific Integrated Library System, it is expected that university libraries will use this software for some time before considering switching to another, but unfortunately the researcher had observed that few years into the deployment of these software the libraries abandon them for another with substantial implications.

Due to the enormous cost of acquiring and deploying Integrated Library Systems it is not expected, in the view of Deewil (2013), that ILS turnover rate for library automation should be high. According to Applegate, Austin and Mcfarlan (2007), IT system should ideally be easy to adopt and deploy but difficult to stop using. Customers drawn into the system through series of increasingly valuable enhancements should willingly become dependent on the systems functionality. In developed countries, technology savvy executives switch to new technologies because of among others their flair for new innovations these technologies have to offer in anticipation of solving an identified need and their quest to try out something new. While in a developing country like Nigeria specifically within the university library systems, what could be responsible for the switch is yet to be ascertained.

In the Nigerian university library system, studies have revealed a high ILS switching rate. According to Imo and Igbo (2011), Nigerian university libraries switch software averagely within five years of use. This is a colossal waste of resources with huge implications on the libraries quest for automation. These notwithstanding, Nigerian university libraries continue to switch from one ILS to another Oketunji (2006) and Zaid (2004). Perhaps the management of these libraries are ignorant of the implications of switching ILSs. In the Nigerian university libraries system the reasons for switching is yet to be ascertained. This study determined the reasons for switching ILS

by Nigerian University libraries. This is because of the need to provide empirical data on ILS switching in Nigerian university libraries.

Research question
The study was guided by the following question:
1. What are the reasons for Switching Integrated Library System in Nigerian University Libraries?

Literature Review
Libraries have been presenting users with organized and classified information for centuries. However, according to Wang (2009), the once dominant status of academic libraries, assisting scholars and students in their pursuit of knowledge, is facing new competition from popular non-library entities such as Google and Amazon". Rapid advances in library technology, providing accurate and immediate information about library resources and services to users, have contributed to the number of integrated library system (ILS) conversions and migration projects in academic libraries. Many researchers and practitioners such as Wang (2009), Adogbeji, Nwalo, Okonoko and Toyo (2013) have written on the topic of ILS migration with emphasis on local and individual experiences of libraries. Gutierrez and Givens (2014) stated that their "ILS server needed to be replaced therefore, became a major factor that influenced their decision to consider a new library system. When they considered the ongoing hardware and maintenance costs associated with hosting a server, that really made a cloud based system very attractive not to mention downtime for ILS updates and server operating system updates. They were in the perfect situation timing wise, to make a change and save the most money on hardware costs". Wang (2009) in a survey examined the ILS library market and ILS migration projects of academic libraries in the United States, and found out the following as the top five primary reasons for switching ILS:

1. Better system/Functionality in new system,
2. Diminishing Support of old system,
3. Consortium Requirement,
4. Insufficient Old System Features, and
5. Aging System/Hardware. Other reasons included: Cost, Vendor Merger, Vendor Stability and Customer Support.

On their part Zaid (2004), Adogbeji et.al (2013) reported the following as reasons for switching ILS in Nigerian university libraries studied: lack of systems analysis before and after embarking on the purchase of the software, lack of maintenance or technical support, limitation of software, obsolete nature of the operating systems on which the software run.

However, advocating that reasons for change must be based on carefully evaluated library needs and that any new ILS must demonstrate that it will add value to library services and student outcomes. Services to schools of New Zealand (2015) gave more reasons for change to include:
- Present programme being outdated and static
- Present programme not having updates or add-ons that will cover current and future needs.
- Present programme not user friendly

From the foregoing, it can be seen that each library might have different reasons for switching ILS, it is worthy to note that no system last(s) a life time as argued by Tebbetts (2006). So ILS must be switched for another as the situation warrants.

In the opinion of Zhang (1998) in Raju, Moodley, Jagarnath, Chetty, Shongwe, and Raju (2007), advancement in telecommunication and computer technology have already turned library automation into an on-going process. Therefore, librarians keep looking for more powerful and reliable systems to improve their services. The cost of acquiring an ILS, they further revealed, represents a huge investment. Therefore, libraries take the selection process seriously. Purchasing an automated integrated system for your library, according to Tebbetts (2006), is a major decision and one that has to be considered carefully. She argued that planning in this environment is quite different from planning a one-time purchase, and therefore, adaptability and flexibility must always be considered. Hence, the ability to change will be crucial to the success of the library's automation efforts.

Methodology

This study adopted a qualitative research approach. Samkange (2012) posits that the methodology can be used to study different problems. It's use is therefore determined by the problem being studied. Patton (1990) further informs us that, as a methodology, it produces a wealth of detailed information about a smaller number of cases that is transferable. The goal of qualitative research can be stated as "*in-depth understanding*" (Nastasi, n.d.). Multiple case study design was adopted for the study. The population of the study comprised of six (6) federal university libraries in Nigeria, one from each geo-political zone of the country and six staff in the project management teams, departments and units. The study Used purposive sampling technique specifically Snowball or Chain Sampling which Identifies cases of interest from people who know what cases are information-rich, that is, who would be a good interview participant. Only libraries that have switched from one ILS to another in their automation projects were selected. The instrument used for data collection in this study was Face to face and phone interview, which lasted between 10-15 minutes each. Interview was found suitable because it enabled an in depth understanding of the issue under study. In order to ensure trustworthiness in this study, the researcher used credibility, dependability, conformability and transferability criteria to present the research methods and findings in a transparent manner. Data collected were analyzed using thematic analysis.

Table1: Sample Distribution

Name of Institution	Geo-political Zones	Library	No. of participants
Abubakar Tafawa Balewa University Bauchi	North East	ATBU Library	1
Ahmadu Bello University Zaria	North West	Kashim Ibrahim Library (KIL)	1
University of Jos	North Central	University of Jos Library	1
University of Lagos	South West	University of Lagos Library	1
University of Nigeria Nsukka	South East	Nnamdi Azikiwe Library	1
University of Port-Harcourt	South South	Donald EU Ekong Library	1
Total	**6**	**6**	**6**

Results and Discussion

The interview responses produced One hundred and three (103) narratives, which were analyzed and discussed under the following themes: Reasons for switching Integrated Library Systems, factors taken into consideration when switching Integrated Library Systems.

Reasons for Switching Integrated Library Systems by Nigerian University Libraries

The objective of the study was to determine reasons why Nigerian University Libraries (NUL) under study, switch Integrated Library Systems. However, before these reasons were determined, the researcher felt the need to first of all find out information on the previous ILS used, length of time used and the current ILS in use by the Nigerian university libraries under study. Finding on these would guide the researcher in determining the reasons why the Nigerian university libraries under study switch ILS.

With regards to information on the previous ILS used by the Nigerian university libraries under study, the analysis shows that five ILS, Libplus, Alice for Windows, X-Lib, Tin-Lib and GLASS were once used by the Nigerian university libraries under study. Although all the libraries studied used proprietary software which confirms the findings of Felstead's (2004) survey on ILS between 1993 and 2003 which revealed continues dominance of ILS commercial vendors, it is interesting to find out that two of the libraries once used locally developed ILS. However, it was discovered that although Abubakar Tafawa Balewa University Library (ATBU) was not prepared for automation, yet it went ahead to purchase two ILS which were never used.

On the length of use of previous ILS, while the findings of Wang (2009) that surveyed U.S. academic libraries revealed an average use of the old systems to be 8 years with the longest use of 20 years, the analysis shows that the NUL studied used the systems for periods ranging from two years to ten years with an average of 5 years. The fact that Nigerian university libraries studied used the previous ILS below the American average reveals that they did not derive value for resources expended on acquiring the ILS.

In terms of the current ILS in use by the NUL studied, three libraries UNN library, UNIJOS library and ATBU library were found to be using KOHA software, KIL is using Virtua software, and UNILAG is using Millenium Innovative. The fact that three libraries are using KOHA is an indication that open source software is gradually being recognized and deployed in NUL studied.

Similarly, three out of the five libraries UNN library, UNIJOS library and ATBU library studied were currently using open source ILS while two were using proprietary KIL and UNILAG library. This finding indicates a gradual shift from proprietary software dominance in the market place, which Singh (2013) confirmed and gave reasons as to why an open-source ILS appeals to libraries. According to him, Open source and open access are philosophically linked to intellectual freedom, which is ultimately the mission of libraries and its underlying philosophy. He further revealed the other two reasons as cost and functionality.

On the question of length of use of current ILS, the analysis reveals that University of Nigeria Nsukka Library (UNN) has been using its current KOHA ILS for 6 years and has no plans to switch to another ILS for now. Kashim Ibrahim Libray (KIL) ABU,Zaria has used its current Virtua ILS for 10 years and also has plans to switch to another ILS for now. Although as reported earlier that ATBU Library failed to automate after several attempts, it has now installed KOHA. The library has gotten the infrastructure and manpower in place. However, the University of Lagos (UNILAG) and University of Jos (UNIJOS) libraries have been using the current ILS Millenium innovative and KOHA for 4 and 3 years respectively. The UNIJOS library does not intend to switch to another ILS for now while UNILAG Library is already planning to switch to another ILS despite the short period of use.

The analysis above shows the average length of use of the current ILS in the libraries studied to be 6 years which is just one year above the average of the previous ILS used by the libraries. The longest ILS use is Virtua, which is in use in KIL, having ten years. Since most of the NUL studied are still using their current ILS without indication of possible migration in the shortest time is an indication of the possibility of deriving value for resources expended.

With regards to the number of ILS switched since inception of automation in the NUL studied, UNN Library has used two ILS, LIB+ and KOHA; KIL reported using two, Alice for Windows and Virtua; ATBU Library has two, X-Lib and Tin-Lib which they never used. On the other hand, UNILAG Library used three, Tin-Lib, GLASS, and Millennium innovative, while UNIJOS reported using three, ITS/ITF which is just a cataloguing module, Virtua and KOHA currently. The libraries studied revealed that averagely each library has used two ILS since the inception of their automation project. This finding is in line with the findings of Adogbeji, Nwalo, Okonoko and Toyo (2013), in which most of the libraries studied by them used a maximum of three years and a minimum of one year since inception of the automation project in the libraries.

On the reasons for switching ILS by the NUL studied, UNN library reported delay in getting vendors to fix ILS problems. KIL listed ILS elements not made for large data, ILS crashing, data lost as reasons for switching. Other reasons given by KIL include the fact that the ILS couldn't manage the kind of power interruption going on in Nigeria and the ILS basically runs on windows operating system, was not customizable, and pressure from donour agencies McArthur and Carnegie cooperation funding the retrospective conversion demanded for regular updates on how the conversion was going because a lot of money was going into it, so the library discovered that the only way to go really was to change. UNILAG Library gave these reasons for switching, the DOS operating system which the ILS ran on was getting outdated, the space on the GLASS ILS was exhausted. While UNIJOS, revealed that they had a fire incident which led to the loss of the software leading to the switch. The several reasons for switching to their current ILS given by NUL studied collaborate the findings of Yeh and Walter (2016),Wang (2009), Adogbeji, et.al (2013), and Tebbetts,(1993).

The implication of KIL and UNILAG libraries stating inability of ILS to manage large data and exhaustion of space provided by vendor as reasons for switching means that the libraries in question did not conduct proper feasibility study of the software before it was selected and acquired. This goes to confirm the findings of Adogbeji, et.al. (2013) that systems analysis was not conducted for the ILS software in the libraries they studied. This underpin the suggestion made by Yeh and Walter (2016) that careful selection process is a critical success factor for ILS implementation in academic libraries. In the case of UNN Library that reported vendor failure to

provide support, it is clear that the library did not heed to Wang (2009) recommendation that libraries should ask serious questions on ILS vendors before taking major decisions on selecting the ILS marketed by the vendors in order to avoid vendor lock-in. For UNIJOS Library, fire incident was the major reason why it changed. Despite losing the server to a fire incident, what could have been expected of the Library to do was to buy another server and reinstall the ILS on it since they still have the license of the ILS after which they can populate it with their back up data.

With respect to source of information on appropriate ILS to switch to by the university libraries studied, UNN Library reported training programs, and other libraries using it as their source, KIL reported IFLA Conference and consultant as the sources of information. While on the part of UNILAG and UNIJOS libraries they reported conducting an independent feasibility study and getting information from literature as their sources respectively.

The paragraph above reveals several sources of information to the libraries studied. This shows that most of the libraries relied on only one or two sources to decide on which ILS to switch to, which is not good enough. Sourcing information from various sources will give better choices than relying on just one or two. A close look at the data reveals that only UNILAG and UNIJOS libraries conducted independent feasibility studies. Even though UNILAG is already planning on switching, which implies that the study conducted was not very helpful on the choice of the appropriate ILS. For UNIJOS the study was very helpful since they don't have plans to switch to another ILS it means they are satisfied with their choice. For the other libraries   it is an indication that the choice of ILS was not taken very seriously and it is a very critical factor in ILS successful implementation.

Conclusion

From the findings of this study it can be concluded that the switching over from one ILS to another by NUL studied is too frequent. The frequency of change is associated with lack of proper feasibility study and knowledge involved in costing switch over as well as neglect of cost benefit analysis of the implication of frequent switching on the libraries. It can also be concluded that the absence of information technology strategic plan and strategic planners which should guide information technology projects like ILS switching is bane of the Nigeria University libraries studied.

Libraries position as an information provider is challenged in the 21st century by alternative sources such as search engines and increasing demand from information technology savvy patrons. For libraries to cope with this challenge and maintain its patrons, automation is key, using Integrated Library systems. However technology doubles every six months and no integrated library system is designed to last for a life time So Nigerian university libraries will continue to grapple with new innovations in the ILS market place which they will need to adopt in order to cope with the current trends of information service provision.

Recommendation

Based on the findings, the study recommends that:

Nigerian university libraries studied should conduct adequate and thorough feasibility study based on the peculiar needs of their libraries before selecting the appropriate library software. This can be done by planning ahead and coming up with a comprehensive plan on how the ILS switching will be conducted, before the actual switch over starts. This can

be achieved by setting up a committee of all stakeholders of the library including students and faculty members as well as experts with ILS switching experience. The committee can consider site visits, vendor demo, and online site comparisons.

References

Adogbeji, B.O., Nwalo, K.I.N, Okonoko, N.V. and, Toyo, D.O. (2013). Software Migration in Selected University and Special Libraries in Nigeria. International Journal of Academic Research in Business and Social Sciences 3 (4), 33-43.

Applegate, L.M., Austin, R.D., &, Mcfarlan F.W. (2007). Corporate Information Strategy and Management: Text and Cases. 7th ed. Boston, McGraw-Hill.

Bozimo, D.O. (2006). ICT and the Ahmadu Bello University Libraries. Nigerian Libraries 1-20.

Chetty, S., Jagarnath, O., Moodley, S.R., Reggie, R., Raju, J., &, Shongwe, B. (2007). The Migration of Integrated Library Systems with Special Reference to Rollout of Unicorn in the Province of Kwazulu Natal. South African Journal of Library and Information Science 73(2) 168-179.

Creswell, J. W. (2003). *Research Design:* Qualitative, quantitative, and mixed method approaches. 2nd ed. Thousand Oaks, California: Sage Publications, Inc.

Deewil, (2013). Integrated Library Management System. Power Point Presentation retrieved from www.slideshare.net/integrated-library -mangt- systems?next_slideshow=1 on 4/April/2015

Dooley,D. (1984) Social Research Methods, Englewood Cliffs, Prentice Hall.

Felstead, A. (2004). The Library Systems Market: A Digest of Current Literature, Electronic

Gbaje, E.S. &, Murtala, A. (2014). Cloud Computing Opportunities for Academic Libraries in Nigeria. Jewel Journal of Librarianship 6(1) 35-41

Gbaje, E.S. &, Murtala, A. (2014). Cloud Computing Opportunities for Academic Libraries in Nigeria. Jewel Journal of Librarianship 6(1) 35-41

Gutierrez, A. &, Givens, E.(2014) "Libraries in Transition: 21st Century Library http://web.simmons.edu/~chen/nit/NIT'93/93-337-tebbet.html (July 9, 2006).

Imo,N.T. &, Igbo,U.H. (2011). The Challenges of Software Use in Nigerian University Libraries: Review of Experiences from 1990-2009. Library Philosophy and Practice (e-journal) Paper 646 Retrieved from http://digitalcommons.unl. edu/libphilprac/571 on 5/10/13

Nastasi, B. (n.d.). Qualitative Research: Sampling & Sample Size Considerations. Study Notes   adapted from a presentation. Retrieved from www.statisticssolutions.com/qualitative sample-size

Nok, G. (2006). The Challenges of Computerizing a University Library in Nigeria: The Case of Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Library Philosophy and Practice (ejournal). paper78 retrieved from http://digitalcommons.unl.edu/libphilprac/78 on 5/10/2013

Oketunji, I. (2006). Choice of Library Application Software and their Sustainability: Necessary guidelines. In Current Trends in ICT: Application to Technical Services. Abuja: NLA (Cat and Class Section).

Omoniwa, M.A. (2001). The Computerization of Kashim Ibrahim Library of Ahmadu Bello University, Zaria 1972 – 2001. *Nigerian Libraries 35(1) 15-22.*

Patton, M.Q. (1990) Qualitative Evaluation and Research Methods, London, SAGE publications. Thomas, R.M. (2003) Blending Qualitative and Quantitative Research in Theses and Dissertations, London Sage Publications.

Peukert, C. (2010). Switching Costs and Information Technology: The Case of IT Outsourcing**.** Retrieved from *https://www.uni-ulm.de/fileadmin/website_uni.../Peukert-Switch.pdf* on 25/12/2014

Samkange, W. (2012). Analysing Research Methodologies: A Case Study of Masters of Education in Educational Management Dissertations at the Zimbabwe Open University. International Journal of Social Science and Education 2(4).

Services to Schools of New Zealand (2015). Changing your Integrated Library System (ILS)**.** Retrieved from newzealand.govt.nz on 3/6/2015.

Singh, V. (2013). Experiences of Migrating to an Open-Source Integrated Library System. Survey of U.S. Academic Libraries with Migration Projects. Journal of Academic Systems," *Kansas Library Association College and University Libraries Section Proceedings*: Vol. 4: No. 2. http://dx.doi.org/10.4148/2160-942X.1046

Tebbetts, D. R. (2006)."Buying an Automated Integrated System." Available at:

Wang, Z. (2009). Integrated Library System (ILS) Challenges and Opportunities: A Survey of U.S. Academic Libraries with Migration Projects. Journal of Academic Librarianship, 35(3), 207-220.

Willis, J.W. (2007) Foundations of Qualitative Research: Interpretive and Critical Approaches, London, Sage Publications Ltd.

Yeh, S. &, Walter, Z. (2016). Critical Success Factors for Integrated Library System Implementation in Academic Libraries: A Qualitative Study. Information Technology and Libraries, September.

Zaid, Y.A. (2004). Automating Library Records Using GLASS Software: The university of Lagos Experience. Nigerian Libraries, 38(1) 56-67

Zhang, W. (1998). Selection of Library Automation Systems: A Management Perspective. *Journal* of *Educational Media and Library* Sciences, 36(I): 1-19.