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Adoption and Use of Koha Integrated Library System in the University of Ilorin Library

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Abstract

This study investigates the Adoption and use of Koha Integrated Library System (ILS) in the University of Ilorin Library. It adopted Total-Enumerative Sampling Techniques, twenty-eight (28) library staff (both professional and Para-professional Staff) were sampled out of which responses from twenty-six (26) of them were received resulting to 92.8% return rate. Data were gathered using the Questionnaire as the instrument. Findings showed that the benefits of adopting Koha in the University of Ilorin library would have been higher had it been the University library makes use of all the modules. It was established that one of the challenges faced in the University of Ilorin Library in the use of Koha Software is the inadequate of technical know-how in terms of Koha operations. The study recommended that Library administrators in the University of Ilorin should begin to see the need to use all the modules in Koha for an improved effectiveness and efficiency library operations. Management of the University of Ilorin should ensure that there is appropriate funding allocated to the maintenance of the software. The management of the institution should look into how more workforces can be recruited as well as continuous training of staff on Koha ILS to acquire the necessary know-how for improved library services.

Keywords: Open Source Software (OSS), Koha, ILS, Library Automation, Academic Library

1. Introduction

There is always a better way of doing things. At the same time, what was done in a better way yesterday can also be improved upon today since we lived in a dynamic world that is characterized by a change in the way things are done. It can be in the form of climate condition, government, economic situation, growth, and even change in operations. Many operations have experienced changes in the way it is being performed and by extension; it affects formal and informal sectors like Insurance Companies, government ministries, agencies, higher institutions, and even libraries. Libraries are known to be a vibrant agent in transforming knowledge either in prints or non-prints form. Likewise other fields of education, libraries are also at the threshold of Information Communication Technology (ICT). The existence and application of ICT have revolutionized the operations of the library; thereby providing for a better way of "doing things" especially in academic libraries. Perhaps this was why Ukachi, Nwachukwu

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and Onuoha (2014) affirmed that the application of technology to academic library routines has moved from traditional to technology based. Momodu (2015) also noted that academic libraries all over the globe are now embracing the advancement of 21st century ICT. The existence of these technologies has been helping the library on one side as well as the library clientele on the other side. The techniques being applied for routines in the library include, but not limited to, acquisition, cataloging, classification, resource location, Online Public Access Catalogue (OPAC), Current Awareness Service (CAS), Selective Dissemination of Information (SDI), and marketing of library services through social media. The need to achieve these fundamental objectives speedily, accurately, and effectively resulted in the application of technology in library operations (Afolabi & Abidoye, 2011).

The academic library is attached to any higher institution to support Teaching, Learning and Research of the parent institution. Jordan (2017) described academic as a type of library established to meet the information needs of the users about disciplines undertaken in the parent institution.

1.1 Background to the University of Ilorin Library

Tracing the history of Library automation in Nigeria, Momodu (2015) stated that the first significant application of the computer to library function in Nigeria was recorded in 1975, with the production of the first issue of the University of Ibadan library computer catalogue of serials. According to the records with the National Universities Commission (NUC) (2018), Academic libraries in Nigeria are classified into first generation, second generation and new universities. The documents revealed from the first generation universities to the present age have witnessed a drastic change in their operations as a result of technology. The technological tools applied include, but are not limited to computers and accessories, Compact Disc Read-Only-Memory (CDROM), Digital Versatile Disc Read Only Memory (DVD-ROM), Compact Disks (CDs), Digital Versatile Discs (DVDs), Internet, Software and hardware (Usman, Abdussalam & Adesina, 2018). Some of these technological tools gave birth to Digital Libraries, Electronic Libraries and Virtual Libraries.

Various software being used in libraries to integrate library collections and offer better services are free while some are available on subscription and trial basis. Whether free or with subscription, all the existing software has almost the same objectives of integrating house core functions and improve service delivery to users of academic libraries. University of Ilorin (UNILORIN), which is also known as *better by far university* adopted the use of Koha. The adoption of Koha in Nigeria academic libraries is increasing from time to time with different reasons, especially from the many existing library software.

The University of Ilorin Library formally commenced its routines and services to clientele on October 25th, 1976 under the headship of Mr. B.A. Oni-Orisan who doubled as the University Librarian and one of the foundation Principal Officers of the University. Similar to other University libraries, the primary responsibility of the library is to select, acquire and organize books, periodicals, documents newspapers, and maps, other print and electronic resources that are required for teaching, research and self-development activities of the University (University of Ilorin, 2019). The responsibility for the selection of book and non-book information resources are jointly shared primarily with members of the teaching staff, and another category of staff and students who which to do so. The Library's book, periodical and e-resources collections are developed within limits set by teaching and research in the academic departments of the existing Faculties, Institute of Education and Center for Peace and Strategic Studies. The library made provision for a wide range of services. Hardware facilities are available for consulting audio-visual and e-resources. Apart from the main Library, the University of Ilorin also has two other satellite libraries which are Law Library and Medical Library. The University of Ilorin Library subscribed to many databases in line with the field of knowledge undertaken in the university. Among

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these databases are HINARI, OARE, JSTOR, EbscoHost, AGORA and Science Direct. The University of Ilorin recently adopted Koha software to integrate her collections and for some routines in the library.

1.2 Problem Statement

The growth of Open Source Software (OSS) is no doubt more visible in the 21st Century. Many academic libraries now make use of some of the available OSS to render more effective services in the library. However, libraries do not just select a particular OSS but with specific justification(s) for the adoption. One of the leading OSS software is Koha and institutions and many academic libraries in Nigeria now embrace it.

The University of Ilorin is one of the leading Universities in Nigeria and the institution's library make use of Koha Integrated Library System (ILS) which is one of the tools put in place to render quality service to all the categories of library users in the University. University of Ilorin library had used several Library Software to integrate its resources. In 2012, the library migrated from proprietary software called TINLINB to a non-proprietary Software called Koha. Ever since 2012, the library has not changed to any other Library software. There is a need to investigate the institution library choice of Koha since Koha is not the only existing free library software. However, unless it is fully utilized the total effectiveness of any software may not be appreciated. The preceding necessitated the reasons for investigating on Adoption of Koha ILS in the University of Ilorin Library.

1.3 Research Objectives

The objectives of the study are to;

i. Justify the reasons for adoption of Koha ILS in the University of Ilorin Library;
ii. Investigate the extent of Koha ILS Usage in the University of Ilorin Library;
iii. Appraise the effectiveness and efficiency of Koha ILS in the University of Ilorin Library; and
iv. Ascertain the challenges faced after adopting Koha ILS in the University of Ilorin Library.

1.4 Research Questions

The study intends to investigate the following research questions;

i. What are the reasons for adoption of Koha ILS in the University of Ilorin Library?
ii. What is the extent of Koha ILS Usage in the University of Ilorin Library?
iii. What is the effectiveness and efficiency of Koha ILS in the University of Ilorin Library?
iv. What are the challenges faced after adopting Koha ILS in the University of Ilorin Library?

1.5 Significance of the Study

Findings from the study will be beneficial to the growth of literature in librarianship and also affords the management of Universities the comparative advantages of Koha ILS to other library software with the understanding of the limitations of Koha. Subsequently, the assessment on Koha ILS adoption and usage in the University of Ilorin will improve service delivery to staff, students and other community of users.

2. Review of Related Literature

Operations of library services information delivery in the academic institutions around the world are changing with the application of new technologies (Pucciarelli & Kaplan, 2016). Since things are changing, the "actors" need to modify the way they do things in the library from traditional operation to smooth handling of their services. Librarians need to change to harness the benefits brought about by advancement in technology. Omeluzor, Bamidele, Ukangwa and Amadi (2012) asserted that if a librarian

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is to deliver prompt and adequate services to the clients, he/she must adapt to the changing environment and the use of current software to manage library routines. Therefore, it was suggested that Integrated Library Systems (ILS) is the current wave in the field of library automation that must be maximized (Ayodele, 2015).

University libraries in Nigeria are in different stages of library automation using different Integrated Library Management System (ILS) which could be either Open ILS or Propriety ILS (Vera & Edore, 2015). Uzomba, Oyebola, and Chukwu (2015) described integrated library system (ILS), also known as a Library Management System (LMS), as an enterprise resource planning system for a library, used to track items owned, orders made, and patrons who have borrowed. According to Ayodele (2015), an ILS combines several activities of the library into one integrated system, allowing the library staff to perform all their functions online. These activities include simple housekeeping activities like acquisition, cataloging to user services, and inter-library loan activities. Integrated library systems (ILS) are multifunction, adaptable software applications that allow libraries to manage, catalogue and circulate their materials to patrons. Among the ILS used in Libraries is Koha ILS. Sobalaje, Ajala and Salami (2018) posit that library in institutions worldwide uses various type of Integrated Library Management System such as Koha daily.

The word "Koha" is not an abbreviation but was coined from the Maori word which means gift or donation (Macan, Fernández, & Stojanovski 2013). Koha is an Open Source Software (OSS) used in Libraries. Koha is the first open source integrated library system (Reddy & Kumar, 2013). OSS literarily means "free". Apart from Koha, other OSS for libraries includes WEBLIS, ABCD Software, GreenStone, Evergreen Software, WinISIS software, NewGenLib, Emilda, PhpMyBibli, Fedora and Avanti. Among all the aforementioned open software, Koha is the most used and this was evident from the finding of Iroaganachi, Iwu-James and Esse, (2015) which revealed that Koha software has gain popularity over the years especially academic Libraries in Nigeria with the highest software frequently used in South Africa and Nigeria. It underscores the value librarians and libraries attached to Koha been the only existing "free" software (OSS), would have concluded that libraries adopt it because it is "free". However, the fact that Koha is not the only OSS means that there are more to the software than it just being "free".

The popularity of adoption and usage of Koha in Nigeria libraries could be as a result of its features. It is expected that any good software should be flexible in which flexibility is also one of the features of Koha. Omeluzor, Bamidele, Ukangwa and Amadi (2012) comprehensively states the features of Koha to be flexibility, user-friendliness, easy to use, internet compatibility, web 2.0 features among others. Apart from the other features which Reddy and Kumar (2013) similarly confirmed, Reddy and Kumar (2013) also indicate that Koha can support Z39.50 search; and the software has been translated to many languages globally. The features of Koha metamorphosed into the uses librarians and library clienteles gratify from it. Reddy and Kumar (2013) further assert that people make use of Koha because it is simple and has clear Interface for both librarians and users. The study also espouses that Koha supports Web 2.0 facilities like tagging and RSS feeds; the presence of Union catalog facility; ability to provide custom search, circulation and borrower management; supports acquisition system like budgeting and pricing information, serials system support; the existence of reading lists, and easy barcode printing, among others. The preceding features of Koha software can be summarized as attributes that change the behavior of library operations from a one-way flow to a two-way-flow which are characterized by Web 2.0 tools. Library users can now provide feedback based on the information services rendered — however, many libraries use these features as the justification for choosing Koha.

In another study Sobalaje, Ajala and Salami (2018), posited that justifications for the use of Koha software by most Koha Users (libraries) are for users' registration, cataloguing, charge and discharge library materials, to print barcodes, access web-based OPAC system, to generate statistical data for research purpose and use for library stock management. These justifications by Sobalaje, Ajala and

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Salami (2018) are based on the general routines of the library that differ from one library to another. Therefore, it connotes that there are more reasons as to why Libraries choose Koha ILS. Similarly, Vera and Edore (2015) conducted a study on "Assessment and Evaluation of Koha ILS for Online Library Registration at University of Jos, Nigeria." The study revealed that majority of library staff (92%) indicated that Koha ILS was chosen out of necessity, 50% said it's because it was secure, 71% said it's because it was easy to use, 83% said it was desirable to them, 63% implicated the available features and functionality.

Meanwhile, 54% of the respondents said it was because it has a trusted brand name while 58% said it was used because of its affordability. Uzomba, Oyebola, and Izuchukwu, (2015) in their study gave a summary of why institutional libraries choose Koha. The study maintained that the reasons why many academic libraries in Nigeria migrate to Koha is the User-friendliness, flexibility, re-usability, adaptability, robustness, low cost of purchase, low cost of maintenance, efficiency, unified management, stability, reliability, ability to manage privileges, availability of search options and web-based OPAC nature of Koha.

In terms of the extent of Koha usage, Kari and Baro (2014) found that 24 university libraries including the University of Ilorin Library in Nigeria use Koha for their library operations. The finding was corroborated in Adekunle, Olla and Oshiname (2016) that Koha has been in existence in Nigeria University Libraries for the past ten years. Ayodele (2015) revealed that Koha is being used in Adeyemi College of Education Library, Ogun State. The study further implies that Koha as an open source software is also being used in some academic libraries other than Universities like libraries in the polytechnics, and colleges of education. Comparatively, the rate at which one library makes use of Koha may be different from the other library. The modules in Koha include OPAC, Circulation, Serial, Acquisition, Cataloguing Module, Patron Management Module and Custom Reporting Modules. Any library that makes use of all the modules in Koha is said to have utilized it fully while libraries that do not use all the modules is said to have utilized it partially. A particular library may utilize Koha fully for its operations while the other library may only utilize it partially depending on the size and exigency although the extent of Koha usage was not stated. Edem (2016) also affirmed that some of the academic libraries using Koha in Nigeria are Babcock University Library; Federal University Lokoja Library; Adeyemi College of Education Library; Redeemers University Library; Taisolarin University of Education Library, Lagos State University Library; Bowen University Library; and University of Ilorin Library.

Application of technology is not always without one or two shortcomings. Koha ILS needs proper maintenance, stable power supply, and adequately trained staff and internet connectivity. Meanwhile, these are some of the areas where academic libraries find challenging as a result of infrastructural issues in Nigeria. It was affirmed in the study of Tella, Dina, Olaniyi, Memudu, and Oguntayo (2017) who stated that the significant challenges facing KOHA library software in the selected university libraries are power failure, reduced maintenance and inadequate in-house expert.

3. Methodology

The social survey design used for this study and it dictates the data collection process. The study adopts a descriptive method to analyze the data gathered. Because the study seeks to assess the adoption and use of Koha ILS in the University of Ilorin, only staff of the library which uses Koha were selected as respondents for the study. The total number of staff (Professionals and Para-professionals cadre) who make use of Koha Software in University of Ilorin Library is twenty-eight (28). It indicates that the sampling technique for the study is total-enumeration. The instrument used for data collection is a structured questionnaire with four major parts for the respondents. The items on the questionnaire structured for this study have an average Cronbach's value of 0.746 alpha for the forty-seven (47) items

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on the questionnaire (excluding demographics). Out of the 28 copies of the questionnaire administered, 26 copies were returned resulting to 92.86% return rate. The data used for the study was collected face-to-face by the researchers at various shifts in the library. Analysis of the collected data was done using the Statistical Package for Social Sciences (SPSS) version 24 of the IBM which aided the descriptive analysis of data.

Table 1: Demographics of Participants

Demographic Information		Freq.	Perc. (%)
Gender	Male	10	38.5
	Female	16	61.5
	Total	26	100
Age brackets	25-35 years	5	19.2
	36-45 years	17	65.4
	46-55 years	4	15.4
	56-65 years	0	0.0
	Total	26	100
Years of Working Experience	1-5 years	6	23.1
	6-10years	13	50.0
	11-15years	4	15.4
	16-20years	1	3.8
	Above 20years	2	7.7
	Total	26	100
Rank	Librarian I	4	15.4
	Librarian II	5	19.2
	Senior Librarian	8	30.8
	Principal Librarian	0	0
	Higher Library Officer	5	19.2
	System Analyst	1	3.8
	Principal Library Officer	2	7.7
	Assistant library officer	1	3.8
	Total	26	100

Source: Research Data, 2018.

Respondents in University of Ilorin library has 10(38.5%) counts for Male Staff, Female has a count of 16(61.5%). In the age category, 5(19.2%) are between 25-35years; 17(65.4%) of them are between 36-45 years; staff between 46-55 years are 4 (15.4%) while none of them are between 56.65 years. In terms of working experience, those that have 1-5years working experience are 6(23.1); 6-10years are 13(50%); 11-15years are 4(15.4%); 16-20years are 1(3.8%) while 2(7.7%) have above 20years of experience. The highest responses were from Senior Librarian (30.8%), as well as Librarian II and Higher Library Officers having 19.2% each (Table 1).

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As shown in Table 2, there are several justifications why the University of Ilorin Library chose Koha. The most significant Justification for the adoption of Koha software was Koha's User-friendliness, Flexibility, Low cost of purchase, Low cost of maintenance, reliability, Availability of Search Engine and for an upgrade. All these have a mean value of 1.00 because all the respondents (Library Staff) indicated this.

Table 2: Justification for the adoption of Koha in University of Ilorin Library

S/N	Items	Justification for Adoption YES	NO	Mean
1.	User-friendliness	26(100.0%)	0 (0.0%)	1.00
2.	Flexibility	26(100.0%)	0 (0.0%)	1.00
3.	Re-usability	25(96.2%)	1 (3.8%)	0.96
4.	Adaptability	24(92.3%)	2 (7.7%)	0.92
5.	Robustness	25(96.2%)	1 (3.8%)	0.96
6.	Low cost of Purchase	26(100.0%)	0 (0.0%)	1.00
7.	Low cost of Maintenance	26(100.0%)	0 (0.0%)	1.00
8.	Efficiency	23(88.5%)	3 (11.5%)	0.88
9.	Unified Management	24(92.3%)	2 (7.7%)	0.92
10.	Stability	24(92.3%)	2 (7.7%)	0.92
11.	Reliability	26(100.0%)	0 (0.0%)	1.00
12.	Support and support model	24(92.3%)	2 (7.7%)	0.92
13.	Ability to manage privileges and permissions	25(96.2%)	1 (3.8%)	0.96
14.	Availability of Search options	26(100.0%)	0 (0.0%)	1.00
15.	Just for Upgrade	26(100.0%)	0 (0.0%)	1.00
16.	It's the best among all Open Source software	26(100.0%)	0 (0.0%)	1.00

Source: Research Data, 2018.

It can be deduced, as shown in Table 3, that extent of application of "cataloguing module" and "application of OPAC module" in Koha is high in University of Ilorin Library. These two *items* have the highest mean value of *3.12* and *3.08* which is equivalent *0.82* and *0.27* standard deviation respectively. Another usage like utilization of serial module, custom report, patron module, circulation module, acquisition module, as well as accessibility and usage of Koha patron module by library users anytime anywhere are on low levels which reflected in the mean values of these items.

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Table 3: Extent of Koha Usage in University of Ilorin Library

	Extent of Usage	VL	L	H	VH	Mean Value	Std Dev
1	Application of Cataloguing modules in Koha	2 (7.7%)	1 (3.8%)	15 (57.7%)	8 (30.8%)	3.12	0.82
2	Utilization of Serial Module in Koha	22 (84.6%)	3 (11.5%)	1 (3.8%)	0 (0.0%)	1.19	2.92
3	The Use of Koha custom report module in Koha	0 (0.0%)	2 (7.7%)	24 (92.3%)	0 (0.0%)	2.92	0.27
4	Application and use patron module in Koha	21 (80.8%)	1 (3.8%)	3 (11.5%)	1 (3.8%)	1.38	0.85
5	Utilization of Koha Acquisition module	2 (7.7%)	2 (7.7%)	22 (84.6%)	0 (0.0%)	2.77	0.59
6	Application and use of OPAC module in Koha	0 (0.0%)	0 (0.0%)	24 (92.3%)	2 (7.7%)	3.08	0.27
7	Utilization of Koha Acquisition Module	23 (88.5%)	3 (11.5%)	0 (0.0%)	0 (0.0%)	1.12	0.33
8	Accessibility and usage of Koha patron module by library users anytime, anywhere	22 (84.6%)	4 (15.4%)	0 (0.0%)	0 (0.0%)	1.15	0.37

Source: Research Data, 2018.**VL=Very Low L=Low H=High VH=Very High**

Table 4: Effectiveness and Efficiency of Koha in University of Ilorin Library

SN	ITEMS	SD	D	A	SA	Mean Value	Std Dev
1	Koha is helping the library to automate the library	0 (0.0%)	0 (0.0%)	15 (57.7%)	11 (42.3%)	3.42	0.51
2	Library users can have access to library collection anytime and anywhere through Koha usage in our library	0 (0.0%)	0 (0.0%)	26 (100.0%)	0 (0.0%)	3.00	0.00
3	All operations in the circulation unit of our library are guided by Koha circulation module	0 (0.0%)	11 (42.3%)	15 (57.7%)	0 (0.0%)	2.58	0.51
4	All forms of library operations are have improved drastically with the use of Koha software	0 (0.0%)	0 (0.0%)	0 (0.0%)	26 (100%)	4.0	0.00
5	Koha software is highly effective in usage	6 (23.1%)	19 (73.1%)	1 (3.8%)	0 (0.0%)	1.81	0.49

Source: Research Data, 2018. **SD=Strongly Disagree D=Disagree A=Agree SA=Strongly Agree**

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Table 4 shows that the effectiveness and efficiency of Koha in University of Ilorin library is moderate. It is because its effectiveness and efficiency are high in terms of "improving all forms of library operations drastically" (4.00±0.00); "library users having access to library collection anytime and anywhere (3.00±0.00)"; as well as in "automating the library" (3.42±0.51). Meanwhile, on the "effectiveness of the software in usage" measured, there is a low mean value of 1.81 equivalent to 0.49 standard deviation.

Table 5: Challenges faced in the adoption of Koha ILS in University of Ilorin Library

	Challenges of Koha ILS			
	Items	**YES**	**NO**	**Mean**
1.	Insufficient manpower	0 (100.0%)	0 (0.0%)	1.00
2.	Lack of supervision	1 (3.8%)	25 (96.2%)	0.04
3.	Inadequate managerial support	10 (38.5%)	16 (61.5%)	0.38
4.	Inadequate power supply	2 (7.7%)	24 (92.3%)	0.08
5.	Cost of Procurement	0 (0.0%)	26 (100.0%)	0.00
6.	Maintenance Cost	20 (76.9%)	6 (23.1%)	0.77
7.	Vendor's insincerity	0 (0.0%)	26 (100.0%)	0.00
8.	Lack of Consortium	3 (11.5%)	23 (88.5%)	0.12
9.	Apathy on the part of Library Staff	2 (7.7%)	24 (92.3%)	0.08
10.	Inadequate Funding	23 (88.5%)	3 (11.5%)	0.88
11.	Lack of training and re-training of staff	21 (80.8%)	5 (19.2%)	0.81
12.	Compatibility with hardware devices	26 (100.0%)	0 (0.0%)	1.00
13.	Piracy	5 (19.2%)	21 (80.8%)	0.19
14.	Proximity to virus	0 (0.0%)	26 (100.0%)	0.00
15.	Crashing problem	12 (46.2%)	14 (53.8%)	0.46
16.	Insufficient technical knowledge	26 (100.0%)	0 (0.0%)	1.00
17.	Data retrieval	1 (3.8%)	25 (96.2%)	0.04
18.	It crashes at times	21 (80.8%)	5 (19.2%)	0.81

Source: Research Data, 2018.

Data gathered as shown in Table 5 revealed that the most significant challenge faced in University of Ilorin library in Koha usage is Insufficient Manpower, Insufficient Technical Knowledge and compatibility with hardware devices problem because all of the respondents (100%) indicated these. Also, Inadequate funding, maintenance cost and tendencies of crashing are part of the significant challenges faced in the University of Ilorin. It is worthy of affirming here that cost of procurement is not a challenge at all which was not surprising because Koha is an Open Source Software; meaning it is free!

4. Discussion of the Findings

The hugeness of the building can never measure the university library, but it may be measured by the level of technology applied to library operations. One of the ways technology is being applied in modern day libraries is through the gratification of the Integrated Library System (ILS) that exists.

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Libraries now harness the benefit accrues to using library software to automate its resources. One of the leading library software – Koha is being adopted in University of Ilorin Library since the library has commenced automating its collection gradually. It hinged on the findings of Ayodele (2015) that Integrated Library Systems (ILS) is the current wave in the field of library automation and libraries. The University of Ilorin did not just adopt Koha ILS; there were reasons for adopting the software.

There are reasons for the University of Ilorin Library choice of University of Ilorin library had been using several library software before migrating to Koha in 2012. The reasons why the library adopted Koha were basically for an upgrade, low cost of purchase, and user-friendliness. Meanwhile, the reasons found for the adoption on of Koha ILS is totally against the findings of Vera and Edore (2015) that Koha ILS was chosen out of necessity, security, ease of use, desire, available features, and functionality, trusted the brand name, and affordability. However, the findings of Uzomba, Oyebola, and Izuchukwu, (2015) that reasons, why so many academic libraries in Nigeria migrate to Koha, is the User-friendliness, flexibility, reusability, and reliability, has a connection with the findings of this study. Some of the reasons why the University of Ilorin adopts Koha ILS was co-incidentally based on the benefits of ILS stated in Ukachi, Nwachukwu and Onuoha (2014) which are user-friendliness, reliability, efficiency, and flexibility. However, the finding also corroborates the findings of Sobalaje, Ajala and Salami (2018) that libraries choose Koha for users' registration, cataloguing, charge and discharge library materials, to print barcodes, access web-based OPAC system, to generate statistical data for research purpose and use for library stock management.

Empirical findings of this study revealed that the university of Ilorin only makes use of two of the Koha modules (cataloguing and circulation modules) fully. The extent of Koha usage in the University library is in tandem with the effectiveness and Efficiency of Koha in the institution. It was found that the effectiveness and efficiency of Koha are moderate in the University of Ilorin. The finding corroborates the findings of Akinbobola and Adeleke (2013) that Koha software meets library personnel's specifications and can fulfill their needs effectively and efficiently. In terms of Koha helping to automate, the effectiveness and Efficiency of Koha was very high this regard. It was succinctly gathered in University of Ilorin library that all Forms of library operations had improved drastically with the use of Koha software.

No single library is without one or two challenges. Advancement and application of technology have never been without challenges. In the University of Ilorin Library, the most significant challenges found were insufficient workforce and insufficient technical knowledge. This corroborates the findings of Ayodele (2015) who found the challenges of an Integrated Library System (Koha inclusive) to be an inadequate pool of relevant technical staff with the problem or difficulty in their recruitment and retention. Funding is also a challenge in the university of Ilorin. It is worthy to point and applauds that "Power outage" is not a challenge in University of Ilorin library in the utilization of Koha Integrated Library System. It means that there is an improvement from 2017 when Tella *et al.* (2017) found that power outage was a challenge in Koha Usage.

5 Conclusions and Recommendations

University of Ilorin library did not just migrate to Koha for migrating sake in 2012; it was indeed to improve on services rendered to library users which they were unable to achieve with experience from the previous software. Adopting Koha has dramatically improved the services rendered. The software has made the library to achieve significantly effective and efficient. Therefore, no doubt adopting Koha software in the University of Ilorin Library is indeed a *Better By Far* idea.

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Based on the findings of the study proffered the following recommendations:

i. Library administrators in the University of Ilorin should begin to see the need to use all the modules in Koha for an improved effectiveness and efficiency library operations

ii. The fact that Koha is an open source software does not mean it will not need maintenance cost. Management of the University of Ilorin should ensure that there is appropriate funding allocated for the maintenance of the software.

iii. Since staffing is one of the challenges faced in the University of Ilorin, the management of the University of Ilorin should look into how more staff can be recruited to the existing workforce in the University main library

iv. There should be proper and regular staff training and retraining on Koha ILS from time to time to acquire the necessary know-how.

References

Adekunle, P. A., Olla, G. O. and Oshiname, R. M. (2016). Reports Generation with Koha ILS: Examples from Bowen University Library, Nigeria. *Information and Knowledge Management*. 6(4), 51-62

Afolabi, A.F., and Abidoye, J.A. (2011). Integration of information and communication technology in library operations towards effective library services. *Journal of Educational and Social Research, 1,* 113-120.

Akinbobola, O. I. and Adeleke, A. A. (2013). The influence of user efficacy and expectation of actual system use. *Interdisciplinary Journal of Information, Knowledge, and Management*. 8,43-57.

Ayodele, R. (2015). Assessment of Library application packages for library operations and services in Federal University Libraries in the Northwestern States of Nigeria. [Thesis]. Ahmadu Bello University, Zaria. Available online at kubanni.abu.edu.ng

Edem, M. B. (2016). Adoption of Software Packages in University Libraries in Nigeria Library Philosophy and Practice (e-journal). Paper 1342. http://digitalcommons.unl.edu/libphilprac/1342

Iroaganachi, M. A, Iwu-James, J. and Esse, U. C. (2015). Software Selection and Deployment for Library Cooperation and Resource Sharing among Academic Libraries in South-West Nigeria. *DESIDOC Journal of Library and Information Technology* 35(1), 3-8

Jordan, P. (2017). *The academic library and its users*, Routledge, London.

Kari, K. H., and Baro, E. B. (2014). The use of Library Software in Nigerian University Libraries and Challenges. *Library Hi Tech News*, 31(3).

Macan, B. Fernández, G. V and Stojanovski, J (2013). Open source solutions for libraries: ABCD vs. Koha. *Program: electronic library and information systems.* 47(2), 136-154

Momodu, O. M. (2015). Academic Libraries in Nigeria: Yesterday, Today and Tomorrow. *American Journal of Social Sciences* 3(4),115-119

National Universities Commission. 2018). *List of Nigerian universities and years founded*. Retrieved from http://www.nuc.edu.ng/pages/universities. 5/5/2019

Online: ISSN 2645-2960; Print ISSN: 2141-3959

Omeluzor, S. U., Bamidele, I.A, Ukangwa, C.C, and Amadi H.U. (2012). The relevance of a library in the 21st Century: Students‟ perception. *International Journal of Library and Information Science,* 5 (6): 160-167.

Pucciarelli, F., and Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons, 59,* 3, 311-320

Reddy, T. R. and Kumar, K. (2013). Open Source software and their impact on library and information center: AN overview. *International Journal of Library and Information Science,* 5(4), 90-96

Sobalaje, A. J. Ajala, I. O. and Salami, K. O. (2018). Assessment of Koha for Online Library Management in Nigerian Academic Library: A Case Study of Olusegun Oke Library, Lautech, Ogbomoso. *International Journal of Academic Library and Information Science*. 6(2): 23-32

Tella, A. and Dina, N. and Olaniyi, O. T., Memudu, S. A. and Oguntayo, S. A. (2017) *Assessment of the Use of Koha Library Software in four Selected University Libraries in Nigeria.* Journal of Applied Information Science and Technology, 10 (2).

Ukachi, N. B. Nwachukwu, V. N., and Onuoha, U. D. (2014). Library automation and use of open source software to maximize library effectiveness. *Information and Knowledge Management* 3(4), 74-82

University of Ilorin, (2019) About the Library, Retrieved from http://universitylibrary.unilorin.edu.ng/about-library-0 16/04/2019

Usman, A. S., Abdussalam, T. A. B., and Adesina, O. F. (2018). Digitization of library collection in Nigerian University Libraries: University of Ilorin Library experience. *Library Philosophy and Practice, 2018.*

Uzomba, E. C., Oyebola, O. J., and Chukwu A. C. (2015). The Use and the Application of Open Source Integrated Library System in Academic Libraries in Nigeria: KohaExample. *Library Philosophy and Practice (e-journal) 1250.* Retrieved online on August 20th, 2018 from http://digitalcommons.unl.edu/libphilprac/1250

Vera, A. N., and Edore, A. T. (2015).Assessment and Evaluation of Koha ILS for Online Library Registration at University of Jos, Nigeria.*Asian Journal of computer and Information System.* 3(01) 1-8.