

Adoption of library management software in selected university libraries in Southwestern Nigeria

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Abstract

This study investigated the adoption of library management software in selected university libraries in South-Western Nigeria. Five research questions guided the study. The study employed descriptive survey research design. Data were collected through questionnaire, oral interview and observation. The findings of the study revealed that KOHA, VIRTUA and SLAM are three library software packages adopted in the libraries, and that the software packages are used to a high extent; etc. The study highlighted the problems associated with use of library software packages, such as inadequate funding, erratic power supply, cost of procurement of the hardware/software, etc. However, it recommended provision of adequate funds for the acquisition of library software; provision of uninterrupted power supply by libraries, among others.

Keywords: Adoption, Library management software; University libraries; Library services, Nigeria.

Introduction

The university libraries in playing their supportive role to the university education apply advanced technologies in order to meet the information requirements of the user community. According to Ukachi (2012), the 21st century has ushered in a lot of changes in the way library and information services are carried out.

Library management software are computer software packages designed to perform and accomplish library functions. Muller (2011) stated that library software is a multifunction, adaptable software applications that allow libraries to manage, catalogue and circulate their materials to patrons. It enables libraries perform the primary task of cataloguing, circulation, acquisition, reference and serials management functions in an efficient manner.

Adegbule-Adesida (2005) states that there are several software packages for library automation systems available in the Nigerian market that are capable of efficiently and effectively acquiring, storing, sorting, retrieving and disseminating information to library users

on a standalone computer, local area network and via the internet. Examples of such library software are: Micro CDS/ISIS, Greenstone, Avanti, OpenBiblio, NewGenlib, Koha, SLAM, CDS/ISIS, GLASS, ALICE for windows, TINLIB, Virtua, SLIM, X-LIB, Millennium, Aleph, Voyager, Polaris, LIBRARIAN, Fedora, Evergreen, Adlib Library, Aura Online, Bibliotheca, etc.

Library software performs a lot of functions and roles in library services. Bhardwaj & Shukla (2000) opined that library software enhance the speed, productivity, adequacy and efficiency of the library professional staff and save the manpower to avoid some routine, repetitive and clerical tasks such as filing, sorting, typing, duplication, checking etc. Good and reliable library software enhances management, control and easy access to information resources. The researcher is undertaking an investigation on adoption of library management software in selected university libraries in Southwestern Nigeria.

Statement of the problem

The introduction of software into library activities, has led to a high level of development; with the traditional manual methods now faced with the challenges of having to cope with the organization of increased information. Library management software enhance management, control and easy access to information resources. This implies that university libraries should ensure dequate provision of library software packages for effective service delivery. University libraries have been confronted with inadequacies as regards the adoption of library management software. The libraries have not been able to fully apply the promising library software, which must be able to address the various library operations especially the catalogue, acquisition, circulation, web based OPAC system, administrative management, library stock management and report generating systems etc. This is largely due to inability of the stakeholders to recognise the requirement of the library automation systems and fitness of software for their purpose. The danger of the software packages not being adequately applied is that there would not be effective improvement in library services and as a result, the libraries will not be fully supporting the objectives of their parent institutions. In other words, this may hinder access to remote electronic databases and provision of efficient and quality services to the users. This if not addressed, may pose problems to the performance of library operations and services whereby users may get discouraged when they do not get access to remote electronic databases to meet up with their research information needs.

In spite of this, little effort has been made to examine the adoption of library management software in university library services especially in SouthWestern Nigeria. As a result of these deficiencies, there is an urgent need to investigate the

adoption of library management software in university libraries in South-Western Nigeria. It is against this backdrop therefore, that the researcher deemed it necessary to examine the adoption of library management software in selected university libraries in Southwestern Nigeria.

Purpose of the study

The general purpose of this study is to examine the adoption of library management software in selected university libraries in Southwestern Nigeria. The specific objectives of the study are to:

1. find out the library management software adopted in selected university libraries in Southwestern Nigeria;
2. find out the extent to which the library management software are used in the areas of library services and operations;
3. ascertain the benefits of library management software in the libraries;
4. find out the problems associated with the use of the library management software in the libraries; and
5. determine strategies for enhancing the use of management managent software in the libraries.

Research questions

The study was guided by the following research questions:

1. What are the library management software adopted in the university libraries in Southwestern Nigeria?
2. To what extent are the library management software used in library services and operations.
3. What are the benefits of library management software in the libraries?
4. What are the problems associated with the use of the library

management software in the libraries?

5. What are the strategies for enhancing the use of the library management software in the libraries?

Literature review

The term software refers to series of instructions designed for a computer to carry out specific functions. It also refers to one or more computer programs and data held in the storage of a computer for some purposes. In this study, software is a set of detailed and coded instructions that control the operations of a computer system. Library software packages are therefore set of detailed, designed, and coded machine readable instructions that enable a computer to carry out effective library and information services or operations. It is software that has been developed to handle basic housekeeping functions of a library. Muller (2011b) stated that library software (ILS) are multifunction, adaptable software applications that allow libraries to manage, catalogue and circulate their materials to patrons. It enables libraries perform the primary task of cataloguing, circulation, acquisition, reference and serials management functions in an efficient manner.

According to Breeding (2012), the library software packages provides computer automation for all aspects of the operation of a library. These products are generally organized into modules that address specific functional areas. Omeluzor, Adara, Ezinwayi, Bamidele and Umahi (2012) opined that library software is designed to enhance all library routine activities as expected by the library users. Good and reliable library software enhances management, control and easy access to information resources that are physical in a library and outside, for example, books, CD ROM, e-journal, e-books, e-databases, and repositories,

among others. It also helps to reduce time wastage in the delivery of services to the library users.

There are various types of library software packages. Ukachi, Nwachukwu and Onuoha (2014) stated that library software come in two different models- the Proprietary software (those that require the payment of subscription fee) and the Open Source Software (OSS). Some of the major proprietary software products according to Breeding (2012) include Symphony from SirsiDynix, Millennium from Innovative Interfaces, Aleph from Ex Libris Group, Voyager from Ex Libris Group, Polaris from Polaris Library Systems, Library Solution from The Library Corporation, Virtua, Carl X from The Library Corporation, Spydus from Civica, and many others. The proprietary products have been available for many years, and have reached a high level of maturity, and remain the dominant approach used for library automation. On the other hand, open source software is free software developed for the enhancement of library routine activities. It's not necessarily cost-free, but is free to use, free to modify, and free to share. Some of the open source software in today's market includes: Emilda, EspaBiblio, Evergreen, Greenstone, Avanti, Fedora, Gnuteca, InfoCID, Jayuya, Koha, SLAM, SLIM, ABCD, NewGenLib, OPALS, OpenAmaphèque, OpenBiblio, PhpMyLibrary, PMB, Senayan etc.

It is now glaring that automation projects are now taking over the housekeeping duties of acquisition, processing, charging and discharging of books in libraries. Library software automates many library tasks that would otherwise be repetitive, labour intensive, and inefficient. The acquisition and maintenance of software is a major investment for a library. Bhardwaj & Shukla (2000) opined that library software packages enhance the speed, productivity, adequacy and efficiency of the library

professional staff and save the manpower to avoid some routine, repetitive and clerical tasks such as filing, sorting, typing, duplication, checking etc. It also helps to reduce time wastage in the delivery of services to the library users. To buttress the benefits of software use in libraries, Tamuno and Ojedokun (1997) observe that once a library system is automated, there are some intangible benefits that staff and students gain such as computer literacy, introduction of new services, and internet and online database searches. Kadiri (2004) also assert that library software will address the problem of manual processing of materials overcoming the problems of filing and typing errors, retrieval errors, and the time involved. He further noted that the advantages of library software includes less drudgery, easy generation of records, space conservation, improvement of information services, and easy retrievals. Not only does automation of library materials make it easier to find books, but it also allows the library to be more flexible when it comes to any increases in demand. The purpose of introducing software in libraries is to create opportunities for students and researchers to access available information resources through various search options such as title, author, subject, ISBN, series, call numbers, etc. This will facilitate ease of access to information materials in the library and beyond.

The advent and development of library software packages across the globe, has made the transition from “traditional” to “technology based” library services which gives room for more efficient service provision very easy and cost effective hence, libraries are now adopting them in their technical services, digitization processes, and general library content management. Muller (2011c) observed that in United Kingdom, library software packages have been developed and run successfully in regard of

flexibility, capacity, expandability, security, economic, user friendly modules based and updated with the latest technology, and there are many directories and other tools available that help librarians to select suitable software for their libraries. Similarly, in USA, the introduction of software packages enable the libraries not only to offer their clientele the appropriate information available within their libraries but also gain access to catalogues of other libraries, both local and outstations (Singh, 2003).

Though developed world has taken a clear cut lead in the field of library software, the scenario in developing nations is not encouraging. For example, Husain and Ansari (2012) stated that although the use of library software in developed countries started in 1940s, the situation in India is not commendable. According to them, the use of library software in India gathered momentum in 1990s as a result of increasing enthusiasm on the part of library professionals to embrace information technology along with other factors. Some of the well-known library software of foreign origin are Alice for Windows, Virtua, Techlib Plus etc. Among the indigenous library software packages, Libsys is the widely used software. Other library software packages developed in India are Granthalaya, Maitreyi, Sanjay, DELMS (Defence Library Management System), Librarian, WYL YSYS (Wipro Library System), DELDOS, TLMS, Libsuite ASP+ etc. In South Africa, Tsebe, Ladwaba, and Shokani (2001) reported the use of major packages by higher Institutions that form consortia. Such software packages adopted include INNOPAC, URICA and ALEPH systems, while Msuya (2001) reported the changes in the work environment since automation at the University of Dar es Salaam Library, Tanzania, the ADLIB software is used.

In Nigeria, major developments in the use of software packages have been

mainly in the academic and research libraries. Agboola (2000) stated that “the greatest impetus to the use of library software in Nigerian university libraries so far has come from a World Bank project”. The World Bank gave automation in the university libraries as one of its conditions for support. As a result, the National University Commission (NUC) presented one microcomputer and a four-user local area network version of the TINLIB (The information Navigator) software to each of the 20 participating libraries in 1992. With this, some of the first generation universities in Nigeria started with TINLIB software. However, they could not continue with this particular software due to some technical problems. For example, Adogbeji (2005) stated that Kenneth Dike library of University of Ibadan, Nigeria had earlier used TINLIB software and could not continue. This was after CDS/ISIS had failed in the library. Also, University of Ilorin started with TINLIB and later shifted to Alice for windows software. University of Lagos was equally affected in the wrong choice of library software. This university started with TINLIB and later shifted to a modified version of TINLIB called Graphical Library Automation System (GLAS). When the latter software could not adequately sustain the library operations, the library then opted for Millennium software in 2012. The Ladoké Akintola University of Technology (LAUTECH) Ogbomoshó, had also used this software. Many other libraries like Obafemi Awolowo University, University of Agriculture Abeokuta, Tafawa Balewa University, Bauchi, Bayero University, Kano, etc. had also adopted TINLIB software. The Nnamdi Azikiwe library of the University of Nigeria, Nsukka had used TINLIB, and migrated to X-lib which came to limelight in 1996, but today the library uses Lib+ for its operations (Eke, 2009).

A review of the literature on library automation in Nigerian university libraries reveals that most of them depend on free and donated software. For example, the University of Ibadan Library started with CDS/ISIS that was developed and distributed freely by UNESCO in 1993. In 1994, the library migrated to TINLIB which was introduced by the World Bank Project in 1994-1995. A study carried out by Idowu and Mabawonku (1999) found that 92.3 per cent of the 13 federal universities studied were using TINLIB for their automation projects, while 15.4 per cent of the universities were using CDS/ISIS. The reason for the preponderance use of TINLIB was because the NUC made the software available for universities under the World Bank intervention loan package to Nigerian Universities. However, this software did not carry the universities very far. Ehikamenor (1990) attributed the failure rate to a number of reasons; manpower, funding, poor maintenance of equipment and irregular power supply. Similarly, Ola (2010) attributed the discontinuation of TINLIB by University of Ibadan to the need for change in the operating system from DOS to Windows. According to him, DOS-based software lack flexibility and were incapable of performing the advanced functions required for delivering smooth library services.

Because of the highlighted problems inherent in this software, university libraries in Nigeria began to look for open source alternative. Some of the libraries went for Graphical Library Automation System (GLAS); while others opted for Alice for Windows. Most of these third attempts are also facing some setbacks. For example, University of Ibadan acquired ALICE for Windows in 2004. Although the software was windows-based, it did not meet their needs because it was not MARC 21-compliant and, as a result, it had no interface for sharing resources. GLAS has crashed at

University of Agriculture, Abeokuta. At the University of Ibadan, Alice for Windows has also been discontinued. The literature of these efforts is replete with tales of flops and unsuccessful implementation. Nevertheless, success has been recorded earlier and this was mainly in research and academic libraries. Nigerian libraries most especially university libraries have begun to explore avenue where they can install viable and enduring software.

In the present scenario, a number of library management software are being adopted in Nigerian university libraries such as KOHA, X – LIB, SLAM, TINLIB, SLIM, Evergreen, Lib+, ALICE for Windows, VIRTUA, GLAS, E-Lib, etc. For example, The University of Benin, Federal University of Technology, Akure and some others have installed the Strategic Library Automation and Management (SLAM) (Sanni and Idioidi, 2004). A review of literature on the use of software in libraries shows that among various library software that have found their way into Nigerian market today, Koha has gained more popularity and acceptability in Nigerian libraries, especially university libraries. For instance Bowen University at Iwo, has installed KOHA (Ogunla & Akanmu-Adeyemo, 2010). Some other university libraries that use Koha software presently are Federal University Oye-Ekiti, Redeemers University, Osun State University, Babcock University, Ladoko Akintola University of Technology (LAUTECH) Ogbomoso, University of Jos, Afe Babalola University, Ado-Ekiti, and many others. This is why Muller (2011d) ranked Koha ILS the most complete free and open source software because of a number of functions including routing periodicals, inventory control, authorities, generation of notices to customers, order tracking, among others.

Methods

The study adopted descriptive survey research design. The population of the study consists of all the university libraries in South Western Nigeria. There are thirty-six university libraries including federal, state and private in the six states of the South Western Nigeria. However, purposive sampling technique was used to select three university libraries. The sample size for this study consists of ninety (90) representing forty-five (45) librarians, forty (40) library officers and five (5) systems analysts from three university libraries. These include: Kenneth Dike Library of the University of Ibadan, twenty-seven (27) librarians, twenty-six (26) library officers and two (2) systems analysts; Ekiti State University Library, ten (10) librarians, seven (7) library officers and two (2) systems analysts; and Timothy Olagbemiro Library of the Bowen University, eight (8) librarians, nine (7) library officers and one (1) system analyst. The choice of these university libraries were justified being libraries that are supporting the universities (federal, state and private) in the zone to provide learning and enhances scholarly, research and creative activities by building collections and providing innovative access to information through the use of library software packages. The instrument for data collection in this study was questionnaire, oral interview and observation checklist.

The data collected for this study was analyzed in line with the research questions. Data collected through oral interviews was analyzed in narrative form while data from questionnaire and observation checklist were presented in tabular form and analyzed with the use of percentage, frequencies and mean. Frequencies and percentages were used to calculate items in cluster one (1) and two (2), while the four point rating scales which required the values SA= Strongly Agree, A=Agree, SD=Strongly Disagree,

D=Disagree, VHE=Very High Extent, HE=High Extent, LE=Low Extent, NA=Not At All, VA=Very Appropriate, A=Appropriate, FA=Fairly Appropriate, NA=Not Appropriate was used for calculating the mean result of items in clusters 3, 4, 5 and 6 respectively. On a four point rating scale, the cut-off point was obtained by adding up the values (all the scores) in the scale and dividing it by the number of scores.

Any item ranked from 2.5 and above was accepted and considered useful whereas any one ranked below 2.5 was regarded as not accepted and was not used. For research question 4, the real limit of number was used in taking decision as follows:

- 3.50 – 4.00 - VHE
- 2.50 – 3.49 - HE
- 1.50 – 2.49 - LE

0.50 – 1.49 - NA

3.1. Findings

A total number of 90 copies of questionnaire were distributed and 80(88.8%) copies were returned and found usable. Relevant data were also collected through oral interviews with three university librarians and three systems analysts while observation checklist to find out how the adoptions of library software packages were carried out in the libraries under study.

Research question one: What are the library management software adopted in the libraries? In view of this research question, observation checklist was used to identify the library management software adopted in the libraries. The results are presented in Table 1

Table 1: Library management software adopted in the university libraries

S/N	Name of library	Software adopted
1	Kenneth Dike Library, University of Ibadan	Virtua
2	Ekiti State University Library	SLIM
3	Timothy Olagbemi Library, Bowen University, Iwo	KOHA

Table 1 reveals that the library management software adopted in Kenneth Dike Library, University of Ibadan is Virtua. The data also revealed that SLIM is the library management software adopted in Ekiti State University Library. However, in Timothy Olagbemi Library, Bowen University, Iwo, it was observed that KOHA is the library management

software adopted in the library.

Research question 2

To what extent are the library management software used in the areas?

Research question two seeks to find out the extent to which the library management software are used in the areas of library services and operations.

Table 2: Extent to which library software management are used in the libraries

S/N Rank	Items	VHE	HE	LE	NA	\bar{X}	
1	Cataloguing and classification services	69	8	2	1	3.81	1 st VHE
2	Circulation services such as charging and discharging, registration of users, book reservation, E-mail and/or text patron's overdue and other notices, etc.	67	10	2	1	3.78	2 nd VHE
3	Web based OPAC system	43	28	6	3	3.38	3 rd HE
4	Ordering and acquisition of library material	32	30	10	8	3.07	4 th HE
5	Serials control and management	20	43	7	10	2.91	5 th HE
6	Generation of barcodes/accession numbers	16	33	17	14	2.63	6 th HE
7	Library stock management	19	28	17	16	2.62	7 th HE
8	Administrative management	13	33	20	14	2.56	8 th HE
	Reference services	18	22	18	22	2.45	9 th LE
9	Overall Mean	333	315	120	112	2.98	HE

KEY:VHE=Very High Extent HE=High Extent LE=Low Extent NA=Not At All \bar{X} = Mean

From the results presented in the above table, it is evident that the extent to which the library management software are used in the areas of library services and operations is high as indicated in the overall mean of 2.98. Cataloguing and classification and circulation services got the mean of 3.8 and 3.78 which means that the library management software are used to a very high extent in this area. However, the software packages are used to a high extent in the areas of web based OPAC system, ordering and acquisition of library materials, Serials control and management, Generation of barcodes/accession number, Library stock management, administrative management with the mean scores of 3.38, 3.07, 2.91, 2.63, 2.62 and of 2.56 respectively. However, reference services got the lowest mean of 2.45. This showed

that the software packages are not used at all in this area.

Also data collected through interviews revealed that the library management software are used to a high extent in the libraries

Therefore, it can be deduced from the above analysis that the library management software are used to a high extent in the areas of library services and operations mentioned above. This can be evident in the overall mean of 2.98.

Research question 3

What are the benefits of library management software in the libraries?

Research question three seeks to find out the benefits of library management software in the libraries,

Table 3: Benefits of library management software in the libraries

S/N	Items	SA	A	D	SD	\bar{X} Rank	Decision
1	It provides easy access to information resources in the library	73	7	-	-	3.9 1 st	Accepted
2	It helps for improved efficiency of library services.	68	12	-	-	3.85 2 nd	Accepted
3	It provides easy access to web based online public access catalogue (OPAC)	61	18	1	-	3.75 3 rd	Accepted
4	It guarantees easy generation of records in the library.	58	22	-	-	3.73 4 th	Accepted
5	It reduces time wastage in the delivery of services to the library users.	59	21	-	-	3.72 5 th	Accepted
6	It allows for easy cataloguing of books and other information resources in the library	61	17	-	2	3.71 6 th	Accepted
7	It supports basic and advanced searching using keywords such as author, title, subject, ISBN, control number, etc.	41	37	2	0	3.48 7 th	Accepted
8	It provides effective security measure to protect unauthorized person from accessing the system (E.g. username and passwords)	35	40	4	1	3.36 8 th	Accepted
9	It provides easy integration of library services such as circulation, cataloguing, acquisition,	33	41	4	2	3.31 9 th	Accepted
10	It helps for library stock management serials management, etc.	28	36	11	5	3.08 10 th	Accepted
Overall Mean		517	251	22	10	3.5	Accepted
KEY: SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree \bar{X} = Mean							

The result presented in table 3 above on the benefits of library management

software showed an overall mean of 3.5 which were accepted. It is evident that all

the benefits mentioned above were accepted by the respondents as indicated in the mean scores of 3.9, 3.85, 3.75, 3.73, 3.72, 3.71, 3.48, 3.36, 3.31 and 3.08 for provision of easy access to information resources in the library, improved efficiency of library services, provision of easy access to web based online public access catalogue (OPAC), easy generation of records in the library, reduces time wastage in the delivery of services to the library users, easy cataloguing of books and other information resources in the library, support for basic and advanced searching using keywords such as author, title, subject, ISBN, control number, provision of effective security measure to protect persons from accessing the system (E.g. username and passwords), provision of easy integration of library services such as circulation, cataloguing, acquisition, serials management and library stock management respectively.

Data collected through interviews revealed that the benefits of library

management software includes easy access to information resources in the library, easy generation of records, increased work output, improved efficiency of library services, increased satisfaction of users, support for advanced search of library resources, easy integration library services and operations, increased job satisfaction, easy access to online public access catalogue (OPAC) and easy registration of users.

Research question 4

What are the problems associated with the use of the library management software in the libraries?

In order to collect data relevant for this research question, respondents were asked to indicate their level of agreement or disagreement on the problems associated with the use of library management software in the libraries. Their views are presented in Table 4.

Table 4: The problems associated with the use of the library management software in the libraries

S/N Items	SA	A	D	SD	\bar{x}	Rank	Decision
1. Inadequate funding	55	18	7	-	4.5	1 st	Accepted
2. Erratic power supply	39	29	11	1	3.32	2 nd	Accepted
3. Cost of procurement of the hardware/software	30	43	5	2	3.26	3 rd	Accepted
4. Maintenance cost	29	44	5	2	3.25	4 th	Accepted
5. Inadequate managerial support	35	30	13	2	3.22	5 th	Accepted
6. Insufficient manpower	25	34	17	4	3	6 th	Accepted
7. Crashing problem	25	33	19	3	3	6 th	Accepted
8. Compatibility with hardware devices	14	45	17	4	2.86	7 th	Accepted
9. Wrong choice of software selection and acquisition	24	29	17	10	2.83	8 th	Accepted
10. Apathy on the part of library staff	19	35	20	6	2.83	8 th	Accepted
11. Lack of technical knowledge From the staff	13	37	20	10	2.66	9 th	Accepted
12. Lack of consortium	14	42	18	6	2.8	10 th	Accepted
Overall mean	322	419	169	50	3.05		Accepted

KEY: SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree \bar{x} = Mean

From the result presented in Table 4, it is clearly shown that respondents attested to all the items as the problems associated with the use of the library management software in the libraries. However, the result reveals that the major problems are inadequate funding, erratic power supply, cost of procurement of the hardware/software, inadequate managerial support, crashing problem and insufficient manpower with mean scores of 4.5, 3.32, 3.26, 3.25, 3.22, 3, and 3 respectively. Other problems as revealed by the respondents include compatibility with hardware devices, wrong choice of software selection and acquisition, apathy on the part of library staff, lack of consortium, lack of technical knowledge from the staff, with the mean scores of 2.86, 2.83, 2.83, 2.8 and 2.66 respectively.

Data collected from interviews revealed that the major problems experienced in the course of the use of library management software include inadequate funding, unstable power supply, wrong selection of software packages, maintenance problem, lack of technical manpower training, lack of interest on the part of the university administration to support library activities, etc.

Therefore, it is evident that the above mentioned problems are associated with the use of library management software in the libraries. This can be seen in the overall mean score of 3.05.

Research question 5

What are the strategies for enhancing the use of these library management software in the libraries?

In view of the above research question, the respondents were requested to indicate their level of appropriateness or otherwise on the strategies for enhancing the use of library management software in the libraries. Their responses are indicated in Table 5. From Table 5, all the responses on the strategies for enhancing the use of the library management software in the library were appropriate with an overall mean of 3.51. They include more funds for the acquisition of library software, provision of uninterrupted power supply by libraries, software should be fortified against virus attack, provision of grants for training and re-training of library staff by funding bodies, adequate managerial support, selection of right software by libraries, employment of capable manpower, libraries should form consortium with each other so as to discuss possible challenges and solutions encountered in the use of the software and provision of adequate quality documentation by the software vendors/suppliers with mean scores of 3.81, 3.77, 3.73, 3.65, 3.48, 3.47, 3.43, 3.33 and 3.26 respectively.

Similarly, the interviewees recommended that adequate funds should be made available for the acquisition of library software, there should be provision for standby generators in case of power failure, manpower training be encouraged, conducive working environment, the parent institutions should inculcate the culture of information and communication technology, university administration should be concerned or interested with issues from the libraries library automation and funds meant for library automation should not be diverted to other projects etc. Conclusively, it is clear from respondents that these libraries are seriously in search of strategies for enhancing the use of library management software in the libraries so as to derive its benefits.

Table 5: Strategies for enhancing the use of library management software in the libraries

S/N	Items	VA	A	FA	NA	\bar{x}	RANK	DECISION
1.	Funds should be provided for the acquisition library software.	65	15	-	-	3.81	1 st	Accepted
2.	There should be provision of uninterrupted power supply by libraries	56	23	-	1	3.77	2 nd	Accepted
3.	Software should be fortified against virus attack	59	21	-	-	3.73	3 rd	Accepted
4.	Grants should be provided for training and re-training of library staff by funding bodies.	54	25	-	1	3.65	4 th	Accepted
5.	There should be adequate managerial support.	45	30	4	1	3.48	5 th	Accepted
6.	Libraries should make selection of right software	41	37	1	1	3.47	6 th	Accepted
7.	The library should employ capable manpower.	41	33	5	2	3.43	7 th	Accepted
8.	Libraries should form consortium with each other so as to discuss possible challenges and solutions encountered in the use of the software.	33	41	6	-	3.33	8 th	Accepted
9.	Provision of adequate quality documentation by the software vendors/suppliers.	29	44	6	1	3.26	9 th	Accepted
Overall Mean		422	269	22	73.54			Accepted

KEY: VA = Very Appropriate A = Appropriate FA = Fairly Appropriate NA = Not Appropriate \bar{x} = Mean

4. Conclusion

This study investigated the adoption of library management software in University library services in selected states in South Western Nigeria. The study which was

guided by five research questions basically investigated the library management software adopted in these libraries, extent to which library management software are used in the areas of library services and

operations, benefits of library management software in libraries, problems associated with the use of the library management software in libraries and strategies for enhancing the use of these library management software in libraries. The instrument for data collection was questionnaire, interviews and observation checklist. The research design was descriptive survey research design with a population of (90) representing forty-five (45) librarians, forty (40) library officers and five (5) systems analysts from three university libraries. Data collected through oral interviews were analyzed in narrative form while data from questionnaire and observation checklist were presented in tabular form and analyzed with the use of percentage, frequencies and mean.

The findings of the study revealed that the library management software adopted in the libraries are VIRTUA, SLIM and KOHA; that the library management software are used to a high extent on these areas. The study also revealed that the benefits of library management software include provision of easy access to information resources in the library, improved efficiency of library services, provision of easy access to web based online public access catalogue (OPAC), easy generation of records in the library, reduction of time in the delivery of services to the library users, among others. The problems associated with the use of library management software revealed that on a greater scale, there are inadequate funding, erratic power supply, cost of procurement of the hardware/software, maintenance cost, inadequate managerial support, crashing problem and insufficient manpower, etc. Based on the findings, the following strategies for enhancing the use of library management software in the university libraries were recommended viz; provision of adequate funds for the acquisition of library software, provision of uninterrupted power supply by libraries, software should be fortified against virus

attack, provision of grants for training and re-training of library staff by funding bodies, adequate managerial support, selection of right software by libraries, among others.

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