

# TECHNOLOGICAL KNOWLEDGE AND UTILISATION OF INTEGRATED LIBRARY MANAGEMENT SOFTWARE AMONG LIBRARIANS IN UNIVERSITY LIBRARIES IN SOUTH-SOUTH, NIGERIA

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## Abstract

The study examined the Relationship between Technological Knowledge and the Utilisation of Integrated Library Management Software (ILMS) among Librarians in University Libraries in South-South Nigeria. Four research questions guided the study, with one null hypothesis tested at a 0.05 level of significance. A descriptive survey design of the correlational type was adopted for the study. The population comprised 269 librarians in federal and state university libraries in South-South Nigeria. Given the relatively small population size, a total enumeration sampling method was employed. Data were analysed using frequencies, mean ( $\bar{x}$ ), standard deviation, Pearson Product Moment Correlation Coefficient ( $r$ ), and linear regression statistics. The study revealed that librarians in university libraries in South-South Nigeria possess a generally low level of technological knowledge. Despite the global availability of various ILMS solutions, only three, KOHA, NewGenLib, and SLAM, are currently in use in the surveyed university libraries. The findings indicated a considerable level of ILMS utilisation among librarians, reflecting a shift from traditional library practices to technology-driven processes. A statistically significant positive relationship ( $R = 0.955$ ;  $R^2 = 0.911$ ) was found between librarians' technological knowledge and their utilisation of ILMS in university libraries. The regression model is statistically significant ( $F = 1914.039$ ,  $p < 0.05$ ), showing that knowledge significantly predicts utilisation. The study therefore recommends that university libraries should improve librarians' technological knowledge by

organising periodic training on digital tools and ILMS operations. This can be achieved through collaborations with library schools, ICT experts, or ILMS vendors to deliver workshops, webinars, and online tutorials.

**Keywords:** Technological knowledge, Utilisation, Integrated Library Management Software (ILMS), librarians, University Libraries, South-South Nigeria.

## Introduction

In the 21st-century academic environment, university libraries are the brain behind achieving the objectives of their parent institutions; they play a vital role in the educational system by offering a range of services to users. The primary goal of the university library is to acquire information resources in diverse formats, covering various fields of human knowledge. This involves processing, organising, disseminating, and providing access to these resources (Onah et al., 2020). Hence, there is no denying the fact that university libraries hold a significant place within the university system and contribute immensely to national and international development (Lamani & Sedam, 2022). These institutions serve as vital resource centres for students, researchers, and academicians by fostering the dissemination of knowledge and intellectual growth. However, for librarians to become effective in their work and service delivery in this technology-driven era, there is a need to adopt and apply information technology in their daily service deliveries and operations.

One of the technologies being applied in libraries across the globe is the Integrated Library Management Software (ILMS).

Integrated Library Management Software (ILMS) is a software designed to enhance all library operations as expected by the library users. Charbonnet (2024) defined Integrated Library Management Software (ILMS) as a comprehensive software suite designed to manage and streamline library operations. ILMS also integrates multiple library operations into a single system, streamlining workflows, reducing redundancy, and enhancing the overall user experience (International Federation of Library Associations and Institutions, 2024). Integrated Library Management Software (ILMS) is, consequently, a detailed program that consolidates library activities like cataloguing, circulation, acquisition, and patron management into one streamlined platform. It facilitates the operational processes, reduces duplications, and takes care of both physical and digital resources. It also helps in organising the library perfectly, while it enhances learning. Adapting to change may be stressful, but it can be an exciting development experience if done in the right way. According to a study by Singh and Sharma (2022), ILMS provides a user-friendly interface for librarians to manage library resources and services. It also offers a robust search engine for patrons to discover library materials. However, the effective utilisation of ILMS by librarians in university libraries may be dependent on librarians' knowledge of the application and utilisation of technology,

Knowledge is a theoretical or practical understanding of a subject. Librarianship Studies (2017) defined knowledge as familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. It is knowing or having the consciousness or understanding, particularly about something, usually gained by experience, and it is also a form of mental representation that enables individuals to recognise, recall, and apply information, concepts, or skills (Borg, 2023). It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.

Technological knowledge refers to the understanding and expertise surrounding the creation, application, and manipulation of tools and techniques to solve problems and enhance productivity. In the library context, it involves knowing how to use technological tools (e.g., software, hardware, and the internet) to enhance library processes. Librarians' knowledge, application and use of modern technology are essential for effective library management, as librarians with a strong understanding of ICT facilities are better equipped to manage their libraries efficiently (Smith, 2016). Librarians' knowledge of modern technologies, such as computers, computer-aided devices, ILMS like Koha, NewGenLib, Alexandria, Openbiblio, can assist immensely in library technical processes.

Knowledge of technology will enable librarians to enhance their ability to utilise both open and closed-access software, such as Koha and Alexandria. Applying the knowledge of

the technology also enables librarians to meet the information needs of the user community (Kwari, 2022). Therefore, for librarians to leverage the numerous benefits of ILMS, they must be knowledgeable about the application and use of the technology for an efficient library; a lack of or poor possession of knowledge can render librarians incapable of utilising ILMS in various tasks and activities in university libraries.

### **Statement of the Problem**

Integrated Library Management Software (ILMS) automates library operations, thereby enhancing efficiency and productivity by reducing manual tasks. While widely adopted in advanced countries, university libraries in Nigeria lag in their usage, limiting their ability to fully benefit from ILMS's transformative potential (Adegboro & Sadiku, 2023). The researcher observed from preliminary investigation and personal experience that several university libraries have not seen the need to adopt the utilisation of the ILMS; those that adopted are not functional, those functioning are not operating in full capacity, while others pack up with time, impacting negatively on the libraries' services and goal attainment.

This development may be attributed to librarians' lack of technological knowledge to effectively utilise ILMS, particularly in data analysis, troubleshooting, and software. These observations have raised concerns in the mind of the researcher. Could it be that librarians' technological knowledge factor is limiting or inhibiting librarians from using ILMS in university libraries? A quest by the researcher to find answers to the above question necessitated this study.

## Research Questions

The following research questions were answered in this study:

1. What is the extent of librarians' technological knowledge in university libraries in South-South Nigeria?
2. What are the types of ILMS being utilised in university libraries in South-South Nigeria?
3. To what extent do librarians utilise ILMS in university libraries in South-South Nigeria?
4. What is the relationship between librarians' technological knowledge and utilisation of ILMS in university libraries in South-South Nigeria?

## Hypothesis

The following null hypothesis was tested at a 0.05 level of significance in this study:

1. There is no significant relationship between librarians' technological knowledge and utilisation of ILMS in university libraries in South-South Nigeria.

## Literature Review

Technology is the assemblage of techniques, skills, methods, and processes used to achieve specific objectives. It includes tools, machines, systems, approaches, and processes created to solve problems, improve efficiency, and make tasks easier. Technology, according to Cena (2021), is the application of scientific knowledge for useful ends, whether in business or daily life. Technological knowledge, as noted by Chen (2022), refers to the specific skill

and proficiency required for completing challenging actions, activities, and procedures related to computational and physical technologies, as well as a wide range of other companies. In the contemporary landscape of university libraries, the technological knowledge of librarians is crucial for effective information management and service delivery. Today, ICT is providing libraries with powerful new tools to meet their patrons' information needs beyond their traditional printed materials.

As libraries increasingly integrate Information and Communication Technologies (ICT) into their operations, librarians are expected to possess a diverse skill set that includes familiarity with various software applications, digital resource management, and troubleshooting technical issues. Achugbue et al. (2015) noted that the successful implementation of information and other technologies is linked with the enhancement of librarians' own knowledge and skills in the areas of information resource tools, access modes technology, management, and their capabilities to integrate all these to provide effective and efficient library services. Inyang and Mngutayo (2018), while highlighting the required technological knowledge needed by librarians to effectively utilise software applications in university libraries, mentioned the following: knowledge of software applications generally and those for library, analytical skills, knowledge of how to acquire and use software, and knowledge of how to maintain software installed for use.

Similarly, Dime et al. (2023) asserted that a repertoire of technology knowledge and competencies is required for librarians to support and supplement navigational abilities.

Such competencies enable librarians to organise and manage information resources more efficiently and to pass these skills on to users when required (Iyanda & Opele, 2015). In terms of technological capability and knowledge, Ugboma and Omosor (2015) reveal that professionals use computers more than paraprofessionals because computers and other ICT facilities help them to get their work done more easily and faster. Emezie and Anunobi (2019) carried out a study on library staff knowledge of ICT skills required for the digitisation of information resources in federal university libraries in South-East, Nigeria. Findings of the study showed that a good number of the library staff in federal university libraries in South East Nigeria have good knowledge of computer (i.e., word processing) skills required for digitisation. On the other hand, a good number of the staff have poor knowledge of scanning, editing, document analysis, and archival skills required for the digitisation of information resources.

Similarly, Achugbue et al. (2015) conducted a study on librarians' knowledge of information and communication technology hardware usage in university libraries in South-South and South-West, Nigeria. The study revealed that with a mean statistic of 3.20, which is well above the acceptance point of 3.00, it was concluded that librarians in university libraries in the South-South and South-West Region of Nigeria have very high knowledge of ICT hardware. Todd (2018) asserted that with good knowledge of technology, in-house integrated library systems migration can be achieved by a committed group of information professionals.

Advancements in technology have led to a new concept known as library application software packages, also known as Integrated Library Management Software (ILMS). It is a system designed to enhance all library routine activities as expected by the library users (Idris and Lawan,2023). University libraries acquire and install different types of integrated library management software packages to manage their operation and services to reduce inefficiency in their service delivery. Ukachi et al (2014) stated that library software comes in two different types: the Proprietary software (those that require the payment of subscription fees) and the open-source Software (OSS). Some of the major proprietary LMS products, according to Idris and Lawan (2023), include: Virtua from Vtls Inc., Symphony from SirsiDynix, Millennium from Innovative Interfaces, Aleph from Ex Libris Group, Voyager from Ex Libris Group, Polaris from Polaris Library Systems, Library Corporation, Carl X from The Library Corporation, Spydus from Civica, Virtue software, and many Others.

Likewise, Uzomba et al. (2015) noted that there are many open-source library software solutions out there today that could be embraced by the library. Some of the open-source software in today's market are: Emilda, EspaBiblio, Evergreen, Gnuteca, InfoCID, Jayuya, Koha, NewGenLib, OPALS, OpenAmapthèque, OpenBiblio, PhpMyLibrary, PMB, Senayan, etc. Of all the open-source software available in the market, Koha and Evergreen have gained major extensions in functionality not present in their counterparts. The use of ILMS is expected to enable library processes to become quicker, stress-free, and more dependable as clientele get easy access to information resources and retrieve information

needed for their academic and research. The utilisation of ILMS has also been shown to improve the efficiency and accuracy of cataloguing processes. This includes managing patron information such as name, address, and contact details. Librarians can also use ILMS to assign patron IDs and track patron activity (Halder & Halder, 2023).

A study by Adegboire and Sadiku (2023) examined the use of integrated library management systems (ILMS) in selected Nigerian university libraries. Findings revealed that ILMS was widely perceived as highly beneficial: it enhanced service efficiency (93.9%), reduced operational costs (87.4%), strengthened the perceived value of libraries among users (92.1%), improved institutional ratings (90.6%), and boosted overall performance (90.9%). Dei and Tetteh (2022) conducted a study on the adoption and use of open-source software in academic libraries in Ghana. Findings from the study revealed that the majority of the respondents from the library (58: 51%) indicated that the extent of use of the OSS is marked as an “average extent” of usage.

Nsirim (2020) also notes that ILMS supports key circulation activities, such as checking materials in and out, monitoring circulation data, managing fines and fees, and establishing loan policies, including borrowing periods and limits. It also facilitates the handling of returns, renewals, holds, recalls, and overdue penalties to ensure the smooth flow of materials. Overall, the use of ILMS has been associated with notable improvements in both circulation and acquisition operations within university libraries. There is no denying that knowledge is what prompts the use of technology by people as what one is not

knowledgeable of, one cannot use. A few studies have been conducted on the relationship between librarians' knowledge and use of ILMS in university libraries.

Furthermore, Mallipudi et al. (2018) carried out a study on library professionals' knowledge and utilisation of integrated library management software (ILMS) in East and West Godavari District Engineering College Libraries (Affiliated to JNTUK, Kakinada. The study found that library professionals have moderate knowledge of the software evaluation process, and about 52% of library professionals have nil knowledge of the installation process of ILMS packages. The study also indicated that proficiency in hardware technologies is essential for library professionals to ensure the effective implementation of automation systems. In other words, adequate knowledge of both hardware and software significantly contributes to the successful deployment and management of automated library packages in academic institutions.

### **Methodology**

The correlational research method was utilised as the research design. The study covered librarians in 22 Federal and State university libraries in South-South, Nigeria. The population of the study consists of 269 (two hundred and sixty-nine) librarians in Federal and State university libraries in South-South, Nigeria. At the time of carrying out this study, there were nine federal universities and 13 State universities in South-South, Nigeria. The entire population of 269 librarians was used as the sample size for the study. For this study, the total enumeration technique was adopted as the sampling procedure. This is because of

the manageable size of the population. The questionnaire was employed as the research instrument for this investigation.

The collected data were analysed using Statistical Package for the Social Sciences (SPSS) to compute descriptive statistics (frequency, percentages, mean, and standard deviation) and inferential statistics (correlation and regression analysis). Mean and standard deviation were used to answer research questions 1-3, while the Pearson Product Moment Correlation Coefficient (PPMCC) was used to analyse research questions 4 to establish the relationship between variables. The hypothesis was tested at the significant level of 0.05 using simple linear regression. The decision rule was used to interpret and answer research questions 1-3 with a decision rating of 1-1.5 (No Extent), 1.51-2.5 (Small Extent), 2.51-3.5 (Moderate Extent), 3.51-4.5 (Great Extent), 4.51-5 (Very Great Extent).

## RESULTS AND DISCUSSION

A total of 269 copies of the questionnaire were distributed, and 188 were returned, yielding a response rate of approximately 70%. This high response rate is considered adequate and robust for survey research, as it exceeds the commonly accepted benchmark of 60% (Wilson et al., 2023).

**Research Question 1:** What is the extent of librarians' technological knowledge in university libraries in South-South Nigeria?

The data in Table 1 provide answers to this question.

### **Table 1: The Extent of Librarians' Technological Knowledge in University Libraries**

S/N	The extent to which each of the following is true of you.	VGE	GE	ME	LE	VLE	$\bar{x}$	Std. Dev.
1.	I am knowledgeable about the use of digital cataloguing tools and software.	4	30	126	28	0	3.05	0.63
2.	I have knowledge about digital rights management (DRM) and its implications for library resources.	0	8	10	152	18	2.04	0.57
3.	I have a strong understanding of how to manage and maintain electronic databases.	0	8	172	8	0	3.00	0.29
4.	I know how to create a backup of information resources into storage devices like DVDs, CDs, Memory cards, flash drives, etc.	2	58	76	40	12	2.99	0.91
5.	I am familiar with the principles of web design and development as they apply to library services.	0	14	10	28	136	1.48	0.90
6.	I understand how to use data analytics tools to assess library usage and patron behaviour.	0	11	24	3	150	1.45	0.93
7.	I understand cataloguing rules and metadata standards such as MARC21, RDA, and Dublin Core	0	0	156	26	6	2.80	0.48
8.	I am familiar with the use of digital archiving tools and practices.	0	10	172	6	0	3.02	0.29
9.	I know how to troubleshoot technical issues with library hardware (e.g., computers, server, scanners).	0	6	94	88	0	2.56	0.56
10.	I know how to troubleshoot technical issues with library software (e.g., database error, slow system performance, login failure ).	8	10	30	112	28	2.24	0.92
11.	I have firsthand knowledge of using online reference management tools (e.g., EndNote, Zotero).	0	0	10	50	128	1.43	0.75
12.	I understand how to implement and manage library systems that support remote access for users.	4	0	18	140	26	2.02	0.65
13.	I am knowledgeable about cybersecurity practices relevant to	0	6	60	112	10	2.33	0.63

protecting library data.

14.	I have knowledge in using digital tools for collaboration and communication within the library.	2	23	34	100	29	2.30	0.91
15.	I understand the basics of programming or scripting relevant to library automation.	0	6	10	152	20	2.01	0.54
16.	I am familiar with metadata standards and their application in digital collections.	1	2	6	19	160	1.22	0.60
17.	I am confident in my ability to provide technical support for patrons using digital resources.	1	1	20	56	110	1.55	0.75
18.	I know how to use a barcode sensor or reader in securing the library's information resources.	2	4	4	138	40	1.88	0.64
19.	I have a strong understanding of interoperability standards like OAI-PMH and Z39.50 for communication and shared data.	1	0	92	88	7	2.47	0.60
20.	I am knowledgeable about the use of social media and digital marketing tools for library promotion.	8	40	68	48	24	2.79	1.05
<b>Grand Mean/Std. Dev.</b>							<b>2.23</b>	<b>0.68</b>

**Decision Rule:** Very Great Extent = 4.51 - 5.00; Great Extent = 3.51 - 4.50; Moderate Extent = 2.51 - 3.50, Low Extent = 1.51 - 2.50 and Very Low Extent = 1.00 - 1.50.

Table 1 above shows that the grand mean of 2.23, with a standard deviation of 0.68, falls within the "Low Extent" range, suggesting that librarians in university libraries in South-South Nigeria possess a generally low level of technological knowledge. This implies that while some respondents indicated moderate familiarity with a few digital tools and practices, their overall technological proficiency remains limited. This finding supports the observations made by Dime et al. (2023), who acknowledged that despite the increasing

need for technological skills among librarians, significant barriers still hinder the acquisition and application of such knowledge.

**Research Question 2:** What are the types of ILMS being utilised in university libraries in South-South, Nigeria?

The data in Table 2 provide answers to this question.

**Table 2: Types of ILMS being Utilised in University Libraries**

S/N	Please indicate (by ticking) the types of ILMS used in your library	No	%
1	CDS/ISIS	0	0
2	ALICE for Windows	0	0
3	KOHA	110	58.5
4	EVERGREEN SOFTWARE	0	0
5	NewGenLib	9	4.8
6	PMP (PhpMyBibli)	0	0
7	SirsiDynix Symphony	0	0
8	Libsys	0	0
9	Virtua (VTLS)	0	0
10	FOLIO	0	0
11	TINLIB	0	0
12	KLAS	0	0
13	GLAS	0	0
14	ABCD Software	0	0
15	Millenium	0	0
16	SLAM	13	6.9
17	ALEXANDRIA	0	0
18	GREENSTONE	0	0
19	X-LIB	0	0
20	FEDORA	0	0

The data from Table 2 reveals that among the listed Integrated Library Management Software (ILMS), only three — KOHA (58.5%), NewGenLib (4.8%), and SLAM (6.9%) — are

currently in use in the university libraries surveyed. This indicates a limited adoption of ILMS platforms across the institutions. The predominance of KOHA, NewGenLib, and SLAM suggests a preference for open-source systems, which are cost-effective and customisable. This aligns with earlier scholarly observations that only a limited number of ILMS are actively adopted in Nigerian university libraries, particularly due to cost, technical support, and infrastructural constraints (Uzomba et al., 2021).

**Research Question 3:** To what extent do librarians utilise ILMS in university libraries in South-South, Nigeria?

The data in Table 3 provide answers to this question.

**Table 3: The Extent to Which Librarians Utilised ILMS in University Libraries**

S/N	The extent to which each of the following is true of you	VGE	GE	ME	LE	VLE	$\bar{x}$	Std. Dev.
<b>Administrative Module</b>								
1.	I use ILMS to create, modify, and delete user accounts (staff and patrons).	2	12	0	2	172	1.24	0.84
2.	I use ILMS to manage authentication methods (password policies, barcode login).	2	12	0	2	172	1.24	0.84
3.	I use ILMS to assign roles and permissions.	4	10	2	0	172	1.27	0.89
4.	I use ILMS to monitor system performance, storage usage, and error logs	2	3	11	0	172	1.21	0.71
5.	I use ILMS to generate reports on library usage, such as the most borrowed books or user activity.	0	0	14	8	166	1.19	0.55
<b>Cataloguing Module</b>								

6.	I use the ILMS regularly for cataloguing new library materials.	0	6	162	20	0	2.93	0.37
7.	I rely on the ILMS to ensure accurate and up-to-date metadata for all library resources.	0	20	8	120	40	2.04	0.83
8.	I use the ILMS to update item records with new information, such as changed titles or authors.	0	0	7	131	50	1.77	0.50
9.	I use the ILMS to assign and update classification numbers for library materials.	10	8	110	60	0	2.83	0.74
10.	I use the ILMS to import and export bibliographic records from external databases.	0	21	157	10	0	3.06	0.40
<b>Circulation Module</b>								
11.	I use the ILMS for user registration.	18	32	30	100	8	2.74	1.09
12.	I use the circulation module to charge and discharge library materials.	3	0	70	105	10	2.37	0.66
13.	I use the circulation module to manage user accounts and permissions within the library.	10	8	110	60	0	2.83	0.74
14.	I use the circulation module to send notifications to patrons about due dates, overdue items, or other library-related matters.	0	0	7	50	131	1.34	0.55
15.	I rely on the ILMS to track the status of interlibrary loans.	0	0	0	137	51	1.73	0.45
<b>Acquisition Module</b>								
11	I use the acquisition module to select and order information resources for purchase	18	32	30	100	8	2.74	1.09
12	I use the ILMS to manage and track purchase orders for new library materials.	0	4	10	0	174	1.17	0.61

13	I use the acquisition module to automate the acquisition process for new library resources.	0	0	0	8	180	1.04	0.20
14	I rely on the ILMS to handle budget allocations, expenditures for library acquisitions, and prepare annual library reports.	0	0	0	0	188	1.00	0.00
15	I use the ILMS to manage vendor information and communication for acquiring new resources.	0	0	0	0	188	1.00	0.00
<b>Serials Management Module</b>								
16	I use the ILMS to keep track of serials and periodicals within the library.	0	0	0	2	186	1.01	0.10
17	I use ILMS to manage serials and subscription information.	0	0	0	1	187	1.01	0.07
18	I use the ILMS to manage the renewal and cancellation of serials subscriptions.	0	0	0	0	188	1.00	0.00
19	I use the ILMS to manage frequent changes and publication schedules for serials.	0	0	0	0	188	1.00	0.00
20	I use the ILMS to generate reports on serials usage.	0	0	0	0	188	1.00	0.00
<b>Grand Mean/Std. Dev.</b>							<b>1.67</b>	<b>0.49</b>

**Decision Rule:** Very Great Extent = 4.51 - 5.00; Great Extent = 3.51 - 4.50; Moderate Extent = 2.51 - 3.50, Low Extent = 1.51 - 2.50 and Very Low Extent = 1.00 - 1.50.

The data from Table 3 revealed that the extent of librarians' utilisation of Integrated Library Management Systems (ILMS) in university libraries is generally low, as indicated by a grand mean score of 1.67 with a standard deviation of 0.49, falling within the "Low Extent" range. A closer look at the data shows that while moderate use was reported in a few areas — such as cataloguing new materials (mean = 2.93 & SD 0.37), assigning classification

numbers (mean = 2.83 & SD 0.74), and managing bibliographic records (mean = 3.06 & SD 0.40) — the overall application of ILMS across key functional modules remains limited. Specifically, utilisation in the Administrative Module. In contrast, the finding does not support the study of Uzomba et al. (2021), who found that the level of use of ILMS in the libraries was high.

**Research Question 4:** What is the relationship between librarians' technological knowledge and utilisation of ILMS in university libraries in South-South, Nigeria?

The data in Table 4 provides answers to this question.

**Table 4: Relationship Between Librarians' Technological Knowledge and Utilisation of ILMS in University Libraries**

		Professional Efficacy Work Performance	
Technological Knowledge	Pearson Correlation	1	.955**
	Sig. (2-tailed)		.000
	N	188	188
Utilisation of ILMS	Pearson Correlation	.955**	1
	Sig. (2-tailed)	.000	
	N	188	188

The Pearson Product Moment correlation ( $r$ ) coefficient between librarians' technological knowledge and utilisation of ILMS is 0.955, which indicates a very strong positive correlation. This means that there is a significant relationship between technological knowledge and the extent to which librarians utilise ILMS in university libraries. As librarians' technological knowledge increases, their use of ILMS also tends to increase substantially. The correlation is statistically significant at the 0.01 level (2-tailed) with a  $p$ -

value of 0.000, confirming that the relationship is not due to chance. This finding suggests that librarians who are more technologically knowledgeable are more likely to effectively engage with and utilise ILMS platforms in their institutions. Therefore, improving librarians' technological skills through targeted training and development initiatives could significantly enhance the use of ILMS for more efficient library operations. This finding supports the result of Mallipudi et al. (2018), who discovered that although the professionals demonstrated moderate knowledge of the software evaluation process, a substantial proportion (52%) lacked knowledge of the installation process of ILMS packages.

### Hypothesis

1. There is no significant relationship between librarians' technological knowledge and utilisation of ILMS in university libraries in South-South Nigeria.

The data in Table 5 provide answers to this hypothesis.

**Table 5: Relationship Between Librarians' Technological Knowledge and Utilisation of ILMS in University Libraries**

<b>Model Summary</b>					
Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	
1	.955 <sup>a</sup>	.911	.911	.12190	
<b>ANOVA</b>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	28.442	1	28.442	1914.039	.000 <sup>b</sup>
Residual	2.764	186	.015		
Total	31.206	187			

<b>Coefficients</b>					
Model	Unstandardized Coefficients	Standardized Coefficients		T	Sig.
	B	Std. Error	Beta		
(Constant)	.172	.035		4.847	.000
Technological Knowledge	.672	.015	.955	43.750	.000

a. Dependent Variable: Utilisation of ILMS

b. Predictors: (Constant), Technological Knowledge

A very strong positive relationship exists between technological knowledge and ILMS utilisation ( $R = 0.955$ ;  $R^2 = 0.911$ ). The regression model is statistically significant ( $F = 1914.039$ ,  $p < 0.05$ ), showing that knowledge significantly predicts utilisation. A unit increase in knowledge raises utilisation by 0.672, leading to rejection of the null hypothesis.

### Recommendations

Based on the findings of this study, the following recommendations are made.

1. University libraries should improve librarians' technological knowledge by organising periodic training on digital tools and ILMS operations. This can be achieved through collaborations with library schools, ICT experts, or ILMS vendors to deliver workshops, webinars, and online tutorials.
2. Libraries should consider diversifying the range of ILMS platforms in use to match evolving library needs. This can be achieved through regular needs assessments, pilot-testing new ILMS solutions, and consulting with vendors to explore scalable and affordable options.

3. To deepen ILMS usage, it should be integrated into all daily library processes and backed by clear policies. This can be achieved by issuing guidelines that make ILMS usage mandatory for routine tasks, along with regular monitoring and user feedback mechanisms.
4. Since knowledge significantly influences usage, librarians should be given opportunities to increase their awareness through self-paced learning. This can be achieved by subscribing to online learning platforms (e.g., Coursera, Udemy), providing internet access for learning, and creating internal knowledge-sharing forums.

## Conclusion

This study examined the relationship between technological knowledge and the utilisation of Integrated Library Management Software (ILMS) among librarians in university libraries in South-South Nigeria. The findings revealed that librarians possess a generally low level of technological knowledge, which limits their capacity to fully utilise ILMS across core library operations. Although a few systems, such as Koha, NewGenLib, and SLAM, are in use, overall adoption remains limited and uneven. The study further established that the extent of ILMS utilisation is low, particularly in administrative, acquisition, and serials management functions, despite moderate usage in cataloguing and circulation activities. Importantly, a very strong and statistically significant positive relationship was found between technological knowledge and ILMS utilisation, indicating that improved knowledge directly

enhances effective usage. Therefore, strengthening librarians' technological competencies through continuous training, capacity building, and institutional support is essential for optimising ILMs utilisation and improving service delivery in university libraries.

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