

**Librarians' Knowledge and Technology Skills, Utilization of Collection Development Policy and Management of Electronic Information Resources in University Libraries in South-South, Nigeria**

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**Abstract**

This study examined the knowledge and technology skills of librarians, their utilization of collection development policy, and the management of electronic information resources in university libraries in the South-South region of Nigeria. A descriptive survey design of the correlational type was employed, and data were collected using a semi-structured questionnaire. Regression analysis was used to analyze the data at a significance level of 0.05. The findings revealed that librarians' utilization of technology skills and knowledge of collection development policy significantly explained a substantial portion of the variance in managing electronic information resources. The study found that the utilization of the knowledge of collection development policy by librarians significantly contributed to the management of electronic information resources. The regression coefficients indicated that an increase in librarians' technology skills, knowledge of collection development policy, and utilization of the knowledge of collection development policy corresponded to an increase in the management of electronic information resources. These findings reject the null hypothesis, implying a significant relationship between librarians' utilization of technology skills, knowledge of collection development policy, utilization of the knowledge of collection development policy, and the management of electronic information resources in university libraries in the South-South region of Nigeria. It is recommended that librarians be sponsored to attend conferences and workshops on collection development policy to enhance their knowledge and keep them updated with innovations in modern libraries.

**Keywords:** Librarians' knowledge and technology skills, utilization of collection development policy, electronic information resources, university libraries, south-south, Nigeria.

### **Background and review of related studies**

Technology, according to Cena (2021), is the application of scientific knowledge for useful ends whether in business or daily life. Technological skills, as noted by Chen (2022) refer to the specific knowledge 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. Susan and Baby (2012) asserted that a repertoire of technology competencies is required for librarians to support and supplement navigational abilities. These abilities aid library employees in managing information more effectively and, in turn, transfer these abilities to users as necessary (Iyanda & Opele, 2015). Besides, Koya and Gopakumar (2018) postulated that all library personnel must learn information technology abilities such as those related to hardware, software, and online applications categories. These abilities include those related to the use of software programs such as word processors, graphic design tools, presentation software, web development, scanning procedures, database construction and maintenance, software installation abilities, and understanding of the fundamentals and troubleshooting of hardware (Opele et al., 2015).

In another study, Eromosele et al (2021) surveyed librarians' ICT competency in a study conducted at the Federal University Libraries in Southern Nigeria. Their findings which agree with other similar studies (Opele & Unegbu, 2012) revealed that ICT skills such as skills to power on and off a computer system, skills to browse the web, download files from the Internet, navigate and use library automation software and its modules such as OPAC, send and receive emails, copy to and from a CD-ROM and flash drive/hard discs among other necessary skills are all needed by librarians to be able to properly annex the 21st Century ICT facilities. These skills are needed not only in the general information service provision but also in the building of library collection known as collection development policy. Mansur (2012) defined collection development as the choice, purchase, and processing of library items in a variety of forms, intended for users' present needs and future requirements. Collection development entails the process of comprehensively adding electronic resources to the library collection to meet current and future patron requests as well as satisfy their interests and goals. Mansur (2012) identified the various steps involved in these processes, including the selection and deselection of current and historical e-resources based on user needs; planning strategies for ongoing acquisition of e-resources while considering financial constraints and their use; and evaluating e-resource collections to ascertain how well they meet user needs.

Collection development policy as posited by New Orleans Public Library (2016) establishes roles, obligations, and a procedure for dealing with user issues to promote the library's stated mission and to serve as a blueprint for the selection, acquisition, management, and preservation of resources. The goal of a collection development policy is to assemble a library's holdings that further the institution's mission. Igiamoh and Duro (2012) noted that the collection development policy guarantees that all information materials obtained are pertinent to the library's users for efficient use. Similarly, Umoh et al, (2021) affirmed that a typical policy document can be improved upon through a policy creation process with careful planning. The planning group often consists of experts and library patrons. To satisfy user needs, library policies should be able to clearly state what kinds of materials should be

acquired (Umoh, Effiom, & Igaja, 2021). Additionally, in their study on the collection development policy of electronic resources in university libraries, Okogwu (2018) identified the techniques used to produce high-quality electronic resources and determined the types of policies guiding those procedures. A formal electronic resource collection development policy should be adopted by libraries to serve as a guide, a point of reference, and to maintain continuity among the librarians participating in developing e-resource collections, according to the study's recommendations.

Besides, the collection development policy serves as a point of reference for the librarians to turn to when making decisions about the acquisition or disposal of library materials, including the processing of gifts. By adhering to the rules outlined in the policy, choices on the collection can be made more consistently and knowledgeably, ensuring continuity even during periods of employee change. A collection development policy should reflect the goals and objectives of the library while also being adaptable enough to accommodate future developments. Collection development policies may be written or unwritten (Ali, 2020). It is preferable to have a documented collection development policy because when decisions are made by a group of people without clear written rules, various perspectives on the library's mission can result (Ali, 2020).

A policy statement gives everyone a single point of reference. However, policy flexibility is advised. This will enable adjustments to be made when necessary (Ali, 2020). The collection creation policy, according to Madison College Libraries (2022) was created to help librarians meet the educational, institutional, and personal requirements of the students, professors, and staff they have chosen by providing current, diverse, and balanced collections of materials. Madison College Libraries further affirmed that for libraries should ensure the availability of their collection development policies, their librarians need to have sufficient knowledge of them. In addition to working with collections librarians to establish accurate approved plan profiles, strong and relevant collections, and evaluate donations in their subject areas, topic or subject librarians stay current on academic requirements in their fields (Madison College Libraries, 2022).

Information technology and the internet have produced several possibilities and problems for library professionals as observed by Prachi, et al (2016). The advent of information communication technologies (ICTs) and their utilization have resulted in the acquisition of electronic information resources such as electronic books, journals, e-zines, databases, etc.) in university libraries in line with the curriculum and needs of members of the university community (Oladapo et al., 2021). Similarly, Srivastava (2020) described electronic information resource as an information source that requires computer access or any electronic product that delivers a collection of data, be it text referring to full-text databases, electronic journals, image collections, other multimedia products and numerical, graphical or time-based, as a commercially available title that has been published to be marketed. In addition, there are several types of electronic information resources acquired in university libraries including electronic books, journals, newspapers, magazines, indexing, and various databases such as abstracting, full-text, reference and statistical, image collection, multimedia products, electronic thesis, clipping, patents, and standards.

In this 21<sup>st</sup> century, almost all information resources in print formats now exist in electronic forms, which include books, journals, reference materials, reports, dissertations/thesis/projects, and directories, to mention only a few (Ankrah & Atuase, 2018; Kavithanjali, 2019, Kenchakkanavar, 2014, Manjunath, 2013; Quadri, et al, 2014;). Electronic resources are generally easy to share and can be used simultaneously for various academic and information needs (Awogbami et al., 2020). Apart from providing easy access to important information, the main advantage of electronic resources in the university library is that they can be accessed remotely by academic staff and students in the comfort of their offices/laboratories or homes, eliminating the need for a physical visit to the library. As a result, electronic resources improve the efficiency with which information is disseminated for research objectives in universities (Terence & Kashimana, 2019, Thanuskodi, 2012).

As university libraries acquire electronic resources, they also need to consider how best to effectively manage them for posterity and future use. Stephen (2017) posited that electronic resource management (ERM) is known as the processes and strategies used by librarians and library personnel to track the selection, acquisition, licensing, access, maintenance, usage, appraisal, retention, and de-selection of a library's electronic information resources. As posited by Wani (2018), libraries must have a system in place to maintain their electronic resources. The library's major goal is to deliver high-quality services that give users the correct information at the right time and guarantee effective utilization of the resources. It's a matter of time until the library can switch to new technology (Onuoha & Opele, 2022). Electronic publications and e-resources are examples of new technologies that allow consumers to access content quickly and easily. Wani (2018) further listed the important things to consider in the management of e-resources including discovery, trial, selection, acquisition, access, and decision. Scholars have viewed the management of electronic information resources from various viewpoints. Pinfield (2001) asserted that electronic resource management necessitates competence in systems that are more complicated than library administration systems. Library management systems (LMS) necessitate establishing priorities for staff time, as well as determining how and who oversees the operation of all electronic devices (Opele, 2022)

Electronic resource management is a step-by-step technique or activity that takes place from the time a resource is chosen and obtained until it is used by the intended users (Awe, 2020; Awogbami et al., 2020). Policy formulation, selection, acquiring, organizing (cataloguing) and preservation (maintenance) are all actions associated with the management of electronic resources (Ugwu & Onyegiri, 2013). Since electronic resources management touches practically every library department and is accessed by nearly every library clientele, electronic resource librarians must explain the jargon for both public services personnel and consumers. Electronic resource librarians must thus have strong communication skills to be effective and progress professionally. They must know not just who to approach and what inquiries to ask, but also how to respond to a wide series of topics from other librarians and end consumers (Verminski & Blanchat, 2017).

Khullar (2018) asserted that the capacity to manage all electronic resources without consulting numerous files and folders is the primary benefit of an electronic resource management system. Many libraries have begun to use electronic resource management

systems to track and analyze their online offerings in recent years. Breeding (2015) distinguished two parts of electronic resource management: the front-end technicalities of distributing content to library users and the back-end business details of staff functions linked to procurement/acquisition, payment, and licensing. The front-end technicalities of distributing content to library users entail the following steps; Links from the online catalogue, e-journal locator resources, linking to full text, openURL-based link resolvers and federated search while the back-end management tools for library staff entail the following steps; traditional online catalogue approach, e-journal holdings data services and electronic resource management applications (Breeding, 2004 as cited in Adomi, 2022).

Electronic resource management (ERM) has been specifically created to assist knowledge managers in successfully managing all electronic resources and Web Subscriptions, such as electronic journals, databases, and electronic books.

Despite the benefits of the deployment of electronic information resources in university libraries, librarians may not be able to effectively manage these resources if they lack the required technology skills, knowledge and utilization of collection development policy. Technology skills refer to people's ability to interact with and complete activities using computer-based technologies and other related technologies. Information and Communication Technology job routines might be either computerized or physical. Technology skills are terms used to describe certain abilities. Hardware skills are the most common classification. That is, they are regularly taught in a school setting or through other means. McKinsey and Company (2020) noted that technology will continue to advance in the future years and decades, including an increasing number of human labour functions. Robots are now doing a variety of ordinary physical duties, but machines are progressively taking on more complex tasks. Artificial intelligence, big data, virtual reality, Blockchain, and other technical advancements, according to Forbes, are driving the 4th industrial revolution (Marr, 2020). In university libraries, technology skills are vital for the use of electronic resources. Ogunsanya and Buraimo (2021) affirmed in a study that the technology skills required in the utilization of electronic resources include internet searching skills, proficiency in sending and receiving messages via e-mail, competencies required in booting and shutting down computer systems, proficiency in the use of ICT to efficiently communicate on the internet between individuals, abilities to download information from different databases, skills required to exhaustively utilize computers without assistance from anyone, proficiency in the use of Google and other search engines, skills required in the use of computer application software, skills in Flash drive and other external drive usage, among others.

Koya and Gopakumar (2018) further affirmed that all library professionals have to acquire IT skills, mainly in three areas of information technology, i.e. hardware, software, and web applications. As electronic resources have become part of library resources, the management of electronic resources becomes the responsibility of the librarian. Koya and Gopakumar (2018) listed the information technology skills required to use electronic information resources including hardware, software, operating, content development software, programming language, and database management skills. Others are plagiarism detection software usage, reference management software use, digital library/ digital repository system,



web application, and security software usage. Bajpai and Margam (2019) posited that professionals in the field of Library and Information Science (LIS) must learn how to use a variety of ICT tools, such as automation, bibliographic standards, ICT-based library services, mobile information services, Library Management Systems, Citation, Institutional Repository, and so on, to perform their jobs effectively. To become an important asset in this profession, LIS professionals must learn and adapt to a fast-changing environment by obtaining diverse ICT skills. In a study concluded by Kumar (2017), “professionals had above average skills for ICT-based knowledge retrieval” (accessing, searching, and using e-journals).

### **Statement of the problem**

The rapid advancement of technology and the increasing availability of electronic information resources have significantly transformed the landscape of library services. In the context of university libraries in South-South, Nigeria, librarians must possess adequate knowledge and technology skills to effectively manage and utilize electronic information resources. However, there is a lack of comprehensive research on the current state of librarians' knowledge and technology skills, the utilization of collection development policy, and the management of electronic information resources in these libraries.

With the emergence of digital resources and online platforms, librarians need to be equipped with the necessary competencies to effectively navigate, evaluate, and utilize electronic information resources. However, it remains unclear whether librarians in these university libraries have received adequate training and professional development opportunities to enhance their knowledge and technology skills. It is essential to assess the extent to which collection development policies are in place and implemented effectively in South-South, Nigeria. This includes evaluating the clarity, relevance, and comprehensiveness of these policies and examining whether librarians adhere to the outlined guidelines for the acquisition and management of electronic information resources. Besides, the effective management of electronic information resources is critical for providing quality services to library users. This includes aspects such as resource selection, licensing, organization, preservation, and accessibility. It is important to investigate the current practices and challenges faced by librarians in managing electronic information resources within university libraries in South-South, Nigeria. This paper therefore provided answers to the formulated hypotheses

### **Research Hypotheses**

The following null hypotheses were tested in the study at a 0.05 level of significance:

1. There is no significant influence of librarians' technology skills on the management of electronic information resources in university libraries in South-South, Nigeria.
2. There is no significant influence of librarians' knowledge of collection development policy on the management of electronic information resources in university libraries in South-South, Nigeria

3. There is no significant influence of librarians' utilization of collection development policy, on the management of electronic information resources in university libraries in South-South, Nigeria.
4. There is no significant joint influence of librarians' technology skills and utilization of collection development policy on the management of electronic information resources in university libraries in South-South, Nigeria.

### **Methodology**

The study adopted the descriptive correlational design. The population of the study comprised 242 librarians working in the Federal and State University libraries in South-South, Nigeria. The sample size for the study was 206 librarians. The total enumeration sampling technique was adopted in this study. The questionnaire titled 'Librarians' knowledge and technology skills, utilization of collection development policy and management of electronic information resources in university libraries in South-South, Nigeria' was used to collect primary data for the study. Data collected was analysed using the linear regression analysis at a 0.05 level of significance. This was achieved using Statistical Package For Social Sciences (SPSS) version 23.

### **Results**

**Hypothesis One: There is no significant influence of librarians' technology skills on the management of electronic information resources in university libraries in South-South, Nigeria**

**Table 1: Linear showing the influence of Librarians' technology skills on the management of electronic information resources in university libraries in South-South, Nigeria**

**Table of model summary and ANOVA**

<b>R square</b>	0.985	<b>Df</b>	205
<b>Adjusted R square</b>	0.983	<b>Mean square</b>	203.270; .015
<b>Std.Error for regression estimate</b>	0.12350	<b>F. Statistics</b>	13326.330
<b>The total sum of the squares</b>	206.381	<b>P (Statistics)</b>	0.000

**Table of regression coefficient**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	-.211	.035		-6.086	.000
Technology Skills Utilized by Librarians	1.036	.009	.992	115.440	.000

a. Dependent Variable: Management of EIRs

Table 1 revealed that Librarians' utilization of technology skills explained a significant amount of the variance in the management of electronic information resources,  $F(1,204) = 13326.330$ ,  $p = .000$ ,  $R^2 = .985$ ,  $R \text{ adjusted} = .985$ . The regression coefficient ( $B = 1.036$ ) indicated that an increase in librarians' utilization of technology skills corresponds on average, to an increase in the management of electronic information resources. Therefore, the null hypothesis is rejected implying that there is a significant relationship between librarians' utilization of technology skills and the management of electronic information resources in university libraries in South-South, Nigeria. This means that librarians' utilization of technology skills can predict the management of electronic information resources.

**Hypothesis Two:** There is no significant influence of librarians' knowledge of collection development policy on the management of electronic information resources in university libraries in South-South, Nigeria

**Table 2: Showing the influence of Librarians' Knowledge of Collection Development Policy and Management of Electronic Information Resources**

**Table of model summary and ANOVA**

<b>R square</b>	0.986	<b>Df</b>	205
<b>Adjusted R square</b>	0.985	<b>Mean square</b>	203.270; .014
<b>Std.Error for regression estimate</b>	0.11822	<b>F. Statistics</b>	14562.451
<b>The total sum of the squares</b>	206.381	<b>P (Statistics)</b>	0.000



**Table of regression coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.543	.027		19.978	.000
Librarians' Knowledge of Collection Development Policy	.906	.008	.993	120.675	.000

a. Dependent Variable: Management of EIRs

Table 2 shows that Librarians' knowledge of collection development policy explained a significant amount of the variance in the management of electronic information resources,  $F(1,204) = 14562.451$ ,  $p = .000$ ,  $R^2 = .986$ ,  $R \text{ adjusted} = .986$ . The regression coefficient ( $B = .906$ ) indicated that an increase in librarians' knowledge of collection development policy corresponds on average, to an increase in the management of electronic information resources. Therefore, the null hypothesis is rejected implying that there is a significant relationship between librarians' knowledge of collection development policy and the management of electronic information resources in university libraries in South-South, Nigeria. This means that librarians' knowledge of collection development policy can predict the management of electronic information resources.

**Hypothesis Three:** There is no significant influence of librarians' utilization of collection development policy, on the management of electronic information resources in university libraries in South-South, Nigeria.

**Table 3: linear regression showing the influence of Librarians' Utilization of the Knowledge of Collection Development Policy and Management of Electronic Information Resources**

<b>R square</b>	0.977	<b>Df</b>	205
<b>Adjusted R square</b>	0.976	<b>Mean square</b>	201.577; .024
<b>Std.Error for regression estimate</b>	0.15346	<b>F. Statistics</b>	8560.106
<b>The total sum of the squares</b>	206.381	<b>P (Statistics)</b>	0.000

**Table of regression coefficient**

		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.265	.038		6.900	.000
	Librarians' Utilization of Collection Development Policy	.906	.010	.988	92.521	.000

a. Dependent Variable: Management of EIRs

Table 3 revealed that Librarians' utilization of the knowledge of collection development policy explained a significant amount of the variance in the management of electronic information resources,  $F(1,204) = 8560.106$ ,  $p = .000$ ,  $R^2 = .977$ ,  $R \text{ adjusted} = .977$ . The regression coefficient ( $B = .906$ ) indicated that an increase in librarians' utilization of the knowledge of collection development policy corresponds on average, to an increase in the management of electronic information resources. Therefore, the null hypothesis is rejected implying that there is a significant relationship between librarians' utilization of the knowledge of collection development policy and the management of electronic information resources in university libraries in South-South, Nigeria. This means that librarians' utilization of the knowledge of collection development policy can predict the management of electronic information resources.

**Hypothesis Four:** There is no significant joint influence of librarians' technology skills and utilization of collection development policy on the management of electronic information resources in university libraries in South-South, Nigeria.

**Table 4: Joint influence of librarians' technology skills and utilization of collection development policy on the management of electronic information resources in university libraries in South-South, Nigeria.**

<b>R square</b>	0.993	<b>Df</b>	205
<b>Adjusted R square</b>	0.992	<b>Mean square</b>	201.577; .007
<b>Std.Error for regression estimate</b>	0.08499	<b>F. Statistics</b>	9457.477
<b>The total sum of the squares</b>	206.381	<b>P (Statistics)</b>	0.000

**Table of regression coefficient**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	.169	.036		4.748	.000
Technology Skills Utilized by Librarians	.399	.043	.383	9.340	.000
Librarians' Knowledge of Collection Development Policy	.387	.038	.424	10.179	.000
Librarians' Utilization of Collection Development Policy	.178	.034	.195	5.213	.000

a. Dependent Variable: Management of EIRs

Table 4 indicates that Librarians' utilization of technology skills, knowledge of collection development policy and utilization of the knowledge of collection development policy explained a significant amount of the variance in the management of electronic information resources,  $F(3,202) = 9457.477$ ,  $p = .000$ ,  $R^2 = .993$ ,  $R \text{ adjusted} = .993$ . The regression coefficient for Librarians' technology skills ( $B = .399$ ), Librarians' knowledge of collection development policy ( $B = .387$ ) and Librarians' utilization of the knowledge of collection development policy ( $B = .178$ ) indicated that an increase in librarians' utilization of technology skills, knowledge of collection development policy and utilization of the knowledge of collection development policy, correspond on average, to an increase in the management of electronic information resources. Therefore, the null hypothesis is rejected implying that there is a significant relationship between librarians' utilization of technology skills, knowledge of collection development policy, utilization of the knowledge collection development policy and the management of electronic information resources in university libraries in South-South, Nigeria. This means that librarians' utilization of technology skills, knowledge of collection development policy and utilization of the knowledge of collection development policy can predict the management of electronic information resources in the university libraries in South-South Nigeria.

## Discussion

This study revealed a significant influence of Librarians' utilization of technology skills, knowledge of collection development policy, utilization of the knowledge of collection development policy and the management of electronic information resources in university libraries in South-South, Nigeria. The findings of the study align with the submission of Ali (2020) who submitted that the knowledge of collection development policy is also critical for effective management of EIRs. Furthermore, the findings corroborated Usman and Gopakumar (2018) who asserted that librarians who possess technology skills such as proficiency in electronic resource management systems, database searching, and online communication tools can effectively manage EIRs. Technology skills enable librarians to

efficiently search and access electronic resources, manage licenses, and provide technical support to library users as well as enable librarians to effectively communicate with other stakeholders, such as faculty members and researchers, about the library's electronic resource collection. The findings are consistent with Ameyaw and Asante (2016) who submitted that there is a strong relationship between librarians' utilization of technology skills, knowledge of collection development policy, and management of electronic information resources (EIRs) in university libraries. This implies that librarians' utilization of technology skills, knowledge of collection development policy and utilization of the knowledge of collection development policy can predict the management of electronic information resources in the university libraries in South-South Nigeria.

### **Conclusion**

The study established that Librarians in university libraries in South-South Nigeria possessed technology skills such as Web application skills, Content management system skills, Plagiarism detection software skills, Information retrieval skills, Digital library/ digital repository system skills, Security software skills, Library management system skills, Database management system skills, Computer operating system skills, Content development software skills, Programming language skills, Computer software skills and computer hardware skills. The study further affirmed that the extent of usage of technology skills possessed by librarians in the university libraries in South-South Nigeria is high. The study further affirmed that the knowledge of collection development policy, and management of EIRs in university libraries in South-South Nigeria is encouraging. It is worthy of note that significant relationships exist between the utilization of technology skills and the management of electronic information resources, knowledge of collection development policy and the management of electronic information resources, utilization of the knowledge of collection development policy and the management of electronic information resources and utilization of technology skills, knowledge of collection development policy, utilization of the knowledge of collection development policy and management of electronic information resources among librarians' in university libraries in South-South, Nigeria.

### **Recommendations**

Based on the findings of this study, the following recommendations are suggested

1. It is crucial for librarians in South-South, Nigeria, to engage in continuous professional development to enhance their knowledge and skills in both traditional library practices and emerging technologies. Universities should provide regular training sessions, workshops, and conferences focused on information management, digital literacy, and the effective utilization of technology in libraries.
2. Librarians should actively participate in professional associations, both locally and internationally, to exchange knowledge and best practices with their peers. Collaborative projects and partnerships can help librarians stay updated with the latest trends in technology and knowledge management.
3. Universities in the zone should invest in modern technology infrastructure and provide librarians with access to up-to-date hardware, software, and digital resources. This

includes having sufficient computer terminals, reliable internet connectivity, and access to electronic databases, e-journals, and e-books.

4. Librarians should organize digital literacy programs for students, faculty, and staff to enhance their technology skills. These programs can include workshops on information searching, critical evaluation of online resources, and the use of citation management tools. Librarians can also provide one-on-one assistance to users who require help with technology-related queries.

### **Recommendations for Utilization of Collection Development Policy**

1. University libraries in South-South, Nigeria, should regularly review and update their collection development policies to align with the evolving needs of the academic community. The policies should reflect the diversity of academic programs and research areas within the university.
2. Conducting periodic user needs assessments can provide valuable insights into the types of resources required by the academic community. Librarians should actively engage with faculty, students, and researchers to understand their information needs and preferences and use this feedback to shape the collection development policy.
3. Librarians should actively collaborate with faculty members to ensure that the library's collection meets the curriculum requirements of various departments. This collaboration can involve regular meetings, communication channels, and librarian involvement in curriculum development committees.
4. Adequate resources should be allocated to support the collection development policy. This includes budgetary provisions for the acquisition of new books, electronic resources, and subscriptions to scholarly journals. Librarians should explore alternative funding sources, such as grants and partnerships, to expand the collection within budgetary constraints.
5. Librarians should employ rigorous selection criteria and evaluation processes to ensure the quality and relevance of electronic information resources. They should regularly assess the usage statistics, user feedback, and changing research needs to make informed decisions about the retention or cancellation of electronic subscriptions.
6. The Universities should implement seamless access to electronic resources through secure authentication methods. Librarians should work closely with IT departments to ensure that off-campus access is convenient and user-friendly. This may involve the use of proxy servers, VPNs, or single sign-on solutions.
7. Librarians in the selected universities should provide training sessions and user guides to help students and faculty effectively utilize electronic resources. This includes training on database search strategies, advanced search techniques, and citation management tools. Librarians should also offer prompt technical support to address any access or usability issues.
8. Librarians should regularly analyze usage data to gain insights into the utilization patterns of electronic resources. This analysis can help identify underutilized resources, evaluate the return on investment, and inform future collection development decisions.

Librarians can collaborate with vendors to obtain detailed usage reports and explore cost-effective licensing options.

By implementing these recommendations, university libraries in South-South, Nigeria, can enhance librarians' knowledge and technology skills, effectively utilize their collection development policies, and efficiently manage electronic information resources to meet the evolving needs of the academic community.

## Reference

- Adewole, G.O & Opele, J.K (2019). Demographic change and industry-specific innovation patterns in Nigeria: the implication for knowledge management practices. *Noble International Journal of Social Sciences Research*, 4(2):25-32. URL:<https://ideas.repec.org/a/nap/nijsr/2019p25-32.html>
- Alarape, A. A., Opeke, R. O., & Opele, J. K. (2016). *Influence of Perceived Information Needs on the Social Psychological Wellbeing of Prison Inmates in South West Nigeria*. 16(1), 79–89.
- Ali, H. (2020). Challenges and opportunities in the management of collection development policy in libraries. *Middle Belt Journal of Library and Information Science*, 18, 164-176.
- Ali, H. (2020). Challenges and opportunities in the management of collection development policy in libraries. *Middle Belt Journal of Library and Information Science*, 18, 164-176.
- [Ameyaw, F., & Asante, W. \(2016\). Assessment of collection development practices: The case of Valley View University Libraries, Ghana. Library Philosophy and Practice E-journal](#)
- Ankrah, E.B., & Atuase, D. (2018). The use of electronic resources by postgraduate students of the University of Cape Coast. *Library Philosophy and Practice*, (e-journal). Paper 1632. <https://digitalcommons.unl.edu/libphilprac/1632>
- Anyaoaku, E.N. (2012). Computer skills set of librarians in Nigeria: Confronting the stereotype. *Annals of Library and Information Studies*, 59, 128-134.
- Anyaoaku, E.N. (2012). Computer skills set of librarians in Nigeria: Confronting the stereotype. *Annals of Library and Information Studies*, 59, 128-134.
- Awe, T. P. (2020). *Health Records Management Practices and Patients ' Satisfaction in Selected University Medical Centres in South-West, Nigeria*. August, 106–114. <https://doi.org/10.20448/807.6.2.106.114>
- Awogbami, P. A., Opele, J. K., & Chibueze, E. U. (2020). Lecturers ' Use of Multimedia Resources for Knowledge Transfer : A Study of Adeleke University, Ede, Osun State. *Information Impact*, 11(2), 35–50.
- Awogbami, P.A., Opele, J.K, & Awe, P.T. (2020). Health Records Management Practices



- and Patients' Satisfaction in Selected University Medical Centres in South-West, Nigeria. *Global Journal of Social Sciences Studies*, 6(2), 106–114. <https://doi.org/10.20448/807.6.2.106.114>
- Cena, C. (2021). *What is Technology?* <https://study.com/academy/lesson/what-is-technology-definition-types.html>
- challenge for knowledge centre managers. *International Journal of Digital Library Services*, 2(1), 166-177. <http://www.academiaa.ed/11968640/> E-resources Management at the Engineering College Library
- Chen, J. (2022). *Technical skills*. <https://www.investopedia.com/terms/t/technical-skills.asp>
- Dority, K. (2017). *Technologies librarians need to know*. <https://www.libgig.com/technologies-librarians-need-know/>
- Doyle, A. (2019). Information and communications technology (ICT) skills of librarians. *Electronic Library*, 33(3), 502 – 523.
- Eromesele, O.C., Omosekejimi, A.F. & Ogo, E.P. (2021). Librarians' ICT competency in the 21st century: A study of federal university libraries in southern Nigeria. *Library Progress (International)*, 41(2), pp.215–226. doi:10.5958/2320-317x.2021.00024.6.
- Hess, A.J. (2019). *The top 20 tech skills of 2019/ and the easiest one to learn in 2020*. Retrieved from: <https://www.cnbc.com/2019/11/24/top-20-tech-skills-of-2019-and-the-easiest-one-to-learn-in-2020.html>
- Igiamoh, V.E., & Duro, M. (2012). Electronic resources collection development practices in libraries in Nigeria. *Niger biblios*, 23(1&2), 84-89.
- Igiamoh, V.E., & Duro, M. (2012). Electronic resources collection development practices in libraries in Nigeria. *Niger biblios*, 23(1&2), 84-89.
- Iyanda, D. F., & Opele, J. K. (2015). Iyanda and Opele - Managing Print and Non-Print Resources in Nigerian Tertiary Institutions. *Elixir Library Science*, 85(1), 34452–34456.
- Katz, I. R., & Macklin, A. S. (2007). Information and communication technology (ICT) literacy: Integration and assessment in higher education. *Systemics, Cybernetics and Informatics*, 5(4), 50-55
- Koya, U. & Gopakumar, V. (2018). Information technology skills required for library professionals in the digital era: An Introspection. *International Journal of Library and Information Studies*, 8(1), 43-50. <https://www.ijlis.org/articles/information-technology-skills-required-for-library-professionals-in-digital-era-an-introspection.pdf>
- Koya, U. & Gopakumar, V. (2018). Information technology skills required for library professionals in the digital era: An Introspection. *International Journal of Library and Information Studies*, 8(1), 43-50. <https://www.ijlis.org/articles/information-technology-skills-required-for-library-professionals-in-digital-era-an-introspection.pdf>

- Kumar, N. B. (2017). *Use of information communication technology (ICT) and library operation: An overview*. <http://eprints.relis.org/32231/>
- Madison College Libraries (2020). *Research Guides: Madison College Libraries Policies: Collection Development Policy*. <https://libguides.madisoncollege.edu/policies/cd>
- Mansur, S (2012). E-resources collection development in engineering college libraries: a Kaur, M. & Walia, P. (2016). Collection development of electronic resources in management libraries of India. *Collection Building*, 35(3), 73-83. <https://doi.org/10.1108/CB-04-2016-0007>
- Ocholla, D.N. (2003). An overview of information and communication technologies (ICT) in the LIS schools of Eastern and Southern. *Education for Information*, 21(2), 181-194.
- Odede, I.R., & Nsibirwa, Z. (2018). *Information literacy skills in using electronic information resources*. <https://www.researchgate.net/publication/329327137>  
[Information Literacy Skills in using Electronic Information Resources](https://www.researchgate.net/publication/329327137)
- Ogunsanya, A.O., & Buraimo, O. (2021). ICT literacy skill and electronic resources utilization among lecturers in the faculty of education, OOU, Nigeria. *Journal of Information Engineering and Applications*, 11(1), 23-31.
- Okogwu, F.I. (2018). *Collection Development Policies of Electronic Resources in University Libraries in Southeast Nigeria* (p. 1758). <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4968&context=libphilprac>
- Oladapo, Y. O., Opele, J. K., & Adeoye, M. O. (2021). Social Media Use For Medical Information Sharing Among Medical Officers In Nigeria: Implication For Librarianship. *Library Philosophy and Practice*, 2021(October), 1–16.
- Onuoha, O., & Opele, J. (2022). *Influence of Entrepreneurship Education on Youth Empowerment in Nigeria*. 30(1), 1–7. <https://doi.org/10.9734/AJESS/2022/v30i130709>
- Opele, J. K. (2022). Inter-professional collaboration and knowledge management practices among the clinical workforce in Federal Tertiary Hospitals in Nigeria. *Knowledge Management and E-Learning*, 14(3), 329–343. <https://doi.org/10.34105/j.kmel.2022.14.018>
- Opele, J. K., Iyanda, D. F., & Opele, A. M. (2015). A Study of Commonly Shared Knowledge among Postgraduate Students in. *Elixir Educational Technology*, 85(2), 34443–34447.
- Opele, J.K., & Unegbu, V.E (2012). *Staff perception on the relevance of hardcopy materials and library use in this digital age: A study of the National Centre for Technology Management*. 4(December), 131–136. <https://doi.org/10.5897/IJLIS11.092>
- Prachi, S, Lambodara, P., & Sonkar, S.K. (2016). E-resources collection development policy. *International Journal of Library and Information Studies*, 6(3), 69-76

- Srivastava, R. (2020). *Electronic information resources*. [https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004131501352590ranjana\\_sriv\\_lib\\_sc\\_Electronic\\_Information\\_Resources\\_1.pdf](https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004131501352590ranjana_sriv_lib_sc_Electronic_Information_Resources_1.pdf)
- Susan, M., & Baby, M. (2012). *Developing technology skills for academic librarians: a study based on the universities in Kerala, India*. <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1776&context=libphilprac>
- Ternenge, T., & Kashimana, F. (2019). *Availability, accessibility, and use of electronic information resources for research by students in Francis Sulemanuldachaba Library University of Agriculture, Makurdi*. <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=5768&context=libphilprac>
- Thanuskodi, S. (2012). *Use of e-resources by the Students and Researchers of the Faculty of Arts, Annamalai University*. <http://article.sapub.org/10.5923.j.library.20120101.html>
- Ugwu, C., & Onyegiri, D. (2013). Management problems of electronic information resources: A case study of UNN Library. *International Journal of Library and Information Science*, 5(5), 126–133. <https://doi.org/10.5897/IJLIS011.097>
- Umoh, M.S., Effiom, A.P., & Igaja, M.N (2021). Collection development policy on library resources and users in university libraries in the south-south geo-political zone of Nigeria. *Global journal of educational research* 20(1), 173-179
- Usman, K & Gopakumar, V. (2018). Information Technology Skills Required for Library Professionals in Digital Era: An Introspection. *International Journal of Library and Information Studies* 8(1), 43-50.
- Wani, S. (2018). E-Resource management. *International Journal of Library and Information Studies*, 8(4), 63-65. <https://www.ijlis.org/articles/e-resource-management.pdf>