Library Progress International *Print version ISSN 0970 1052*
Vol.43, No.2, 2023 *Online version ISSN 2320 317X*

Original Article *Available online at www.bpasjournals.com*

Management of Electronic Records Security and Librarians' Job Performance in University Libraries in Nigeria

Oluchi Bridget IBEH (PhD, CLN)1, Amaka ijeoma ALUMONA (PhD, CLN)2, Bibiana Obiageli MUOKEBE (PhD, CLN)3, Obianuju Maureen AGWUNA (Ph.D)4, Uchechukwu Victoria ENWEANI5, Adaora Maudline ORAKPOR (PhD, CLN)6, Ndidi Grace NWANKWO7, Angela Njideka ANIKE8

Regina Eyiuche OBIADAZIE9

[1]Chukwemeka Odumegwu Ojukwu University, Anambra State, Nigeria.

ORCID iD: 0009-0000-6804-3259

Email ID: ob.ibeh@coou.edu.ng

[2]National Institute for Legislative and Democratic Studies, National Assembly, FCT, Abuja

Email ID: amakaijeoma865@gmail.com

[3]Chukwemeka Odumegwu Ojukwu University, Anambra State, Nigeria.

Email ID: bo.muokebe@coou.edu.ng

[4]Chukwemeka Odumegwu Ojukwu University, Anambra State, Nigeria.

Email ID: om.agwuna@coou.edu.ng

[5]Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria.

Email ID: enweani@coou.edu.ng

ORCID: 0009-0005-1032-699X

[6]Chukwemeka Odumegwu Ojukwu University, Anambra State, Nigeria.

7Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria

Email: ng.nwankwo@coou.edu.ng

ORCID: 0009-0003-5747-5445

[8]Nnamdi Azikiwe University, Awka,Anambra State,Nigeria.

Email ID: an.anike@unizik.edu.ng

ORCID ID: 0000-0002-7169-6792

[9]Department of Science Education

Chukwuemeka Odumegwu Ojukwu University, Anambra State

ORCID: 0009-0002-2873-9133

Email ID: re.obiadazie@coou.edu.ngAbstract

How to cite this paper as: Oluchi Bridget IBEH, Amaka ijeoma Alumona, Bibiana Obiageli MUOKEBE, Obianuju Maureen AGWUNA, Uchechukwu Victoria Enweani, Adaora Maudline ORAKPOR, Ndidi Grace Nwankwo, Angela Njideka Anike, Regina Eyiuche Obiadazie, (2023) Management of Electronic Records Security and Librarians' Job Performance in University Libraries in Nigeria. *Library Progress International,*

ABSTRACT

This study examines the relationship between electronic records management security and librarians' job performance in university libraries in Nigeria. As academic libraries increasingly transition to digital environments, ensuring the security of electronic records has become critical for maintaining data integrity,

confidentiality, and accessibility. The research adopts a correlational survey design, analyzing data from 136 librarians across federal and state universities in South-South Nigeria. Findings reveal moderate positive. relationships between electronic records retrieval (r = 0.45) and security (r = 0.49) with librarians' job performance, highlighting the importance of robust records management systems. Challenges such as inadequate infrastructure and insufficient training were identified as barriers to optimal performance. The study concludes that enhancing electronic records security through targeted training, improved technological resources, and policy interventions can significantly boost librarians' efficiency and service delivery. Recommendations include implementing continuous professional development programs and adopting user-friendly electronic records management systems to support librarians in navigating digital transformations. These measures are essential for safeguarding institutional knowledge and improving library operations in Nigeria's evolving academic landscape

KEYWORDS: Electronic Records Management, Records Security, Records Retrieval, Librarians' Performance, and University Libraries

Introduction

In today's rapidly advancing digital environment, the management of electronic records has become a cornerstone of efficient library operations, especially within academic institutions like universities. Electronic Records Management (ERM) encompasses the systematic control of digital records throughout their lifecycle—from their creation, organization, storage, retrieval, to eventual disposal. As libraries increasingly rely on digital resources and information systems, the importance of securing these electronic records cannot be overstated. Proper management ensures that sensitive information—such as research data, student records, intellectual property, and institutional documentation—remains protected against threats like unauthorized access, tampering, and data loss.

The process of electronic records retrieval is central to library functions, facilitating quick and efficient access to vast amounts of information stored in digital databases or storage systems. When effectively managed, electronic records allow librarians and users to search, locate, and utilize information rapidly, thereby saving valuable time and enhancing productivity. Additionally, electronic records tend to be more reliable and durable than traditional paper records, reducing the risks associated with physical deterioration, loss, or misfiling. They are also easier to update, ensuring that the information remains accurate, relevant, and current—an essential aspect in academic environments where knowledge continually evolves.

Access control mechanisms—such as user authentication, passwords, encryption, metadata tagging, and security classifications—are critical for maintaining the confidentiality, integrity, and usability of electronic records. These security measures restrict access to authorized individuals based on predefined security policies, thereby protecting records from unauthorized viewing, modification, or deletion. The security of electronic records not only safeguards institutional and individual privacy but also ensures compliance with legal and regulatory standards governing data protection.

Studies have demonstrated that effective electronic records management (ERM) practices positively influence the efficiency and performance of librarians. When librarians are equipped with robust security protocols and well-maintained digital systems, they can perform their duties more effectively, providing higher quality services to library users. Conversely, inadequate security measures can lead to data breaches, information loss, and compromised privacy, which ultimately hinder the librarians' ability to deliver reliable and timely services.

Despite the critical importance of electronic records security, many universities in Nigeria face significant challenges in implementing and maintaining effective ERM systems. These include infrastructural deficiencies, limited technical expertise, and insufficient training on security protocols. As a result, records may be vulnerable to cyber threats and unauthorized access, affecting the overall performance of librarians and the quality of library services. This situation underscores the urgent need for research to better understand how electronic records security influences librarians' job performance, and what measures can be put in place to enhance security and operational effectiveness.

Statement of the Problem:

In the Nigerian higher education context, university libraries are transitioning toward digital environments, relying heavily on electronic records to support academic and administrative functions. However, many of these institutions grapple with significant challenges related to electronic records management security. Inadequate security measures—such as weak access controls, insufficient encryption, and a lack of staff training—pose serious risks, including data breaches, unauthorized access, identity theft, and loss of valuable information. Such vulnerabilities threaten the integrity and confidentiality of sensitive data, which can have far-reaching consequences for the university's reputation, student privacy, and legal compliance.

Despite the growing recognition of ERM's importance, there remains a noticeable research gap concerning the specific impact of electronic records security on librarians' performance in Nigerian universities. Previous studies have shown that effective records management enhances overall job performance and organizational efficiency; however, little attention has been paid to how security aspects—such as safeguarding against cyber threats—affect librarians' ability to perform their duties effectively. Without robust security protocols, librarians may become increasingly burdened with managing crises arising from security breaches, thus diverting resources from productive activities and service delivery.

Furthermore, many librarians and library staff lack adequate training in electronic records security best practices, which exacerbates vulnerabilities in their systems. The absence of formal policies and security frameworks complicates efforts to protect digital records, compromising not only individual librarian performance but also the broader institutional mission of providing reliable and secure information services. This situation underscores an urgent need for targeted research and intervention to assess current practices, identify gaps, and develop strategies that strengthen electronic records security—thereby enhancing librarians' efficiency, effectiveness, and the overall quality of library services in Nigerian universities.

Purpose of the Study

This study investigates the relationship between electronic records security and librarians' job performance in Nigerian university libraries, focusing on:

1. The link between electronic records retrieval and performance.
2. The impact of records security on performance in South-South Nigeria.

Literature review

Electronic records management (ERM) is vital for ensuring secure, reliable access to information in libraries. Kahn and Duffy (2021) highlight that effective ERM protects sensitive data and maintains record integrity. Alhassan and Ibrahim (2020) found that strong ERM systems improve librarians' job performance by enhancing access and workflow efficiency.

Training is crucial; Afolabi and Ojo (2022) note that ongoing professional development boosts librarians' skills, confidence, and performance. Conversely, Oduwole and Oduwole (2021) report that many Nigerian librarians lack adequate ERM training, leading to security vulnerabilities and inefficiencies. This underscores the need for targeted training and policy interventions to strengthen electronic record security and improve librarian performance.

Electronics records retrieval.

Electronic records retrieval in university libraries involves accessing digital materials such as articles, books, and databases for research purposes. This process utilizes electronic databases and online catalogs to enable efficient, quick decision-making (Akanwa & Udo-Anyanwu, 2017). Modern records managers innovate methods to electronically capture and store documents for easy search and retrieval.

Effective retrieval systems must support various formats and levels of aggregation. The ICA (2008) recommends that electronic records systems provide flexible functions for locating records based on user-defined parameters. While paper systems depend on guides and indexes (Yakubu & Dauda, 2022), electronic systems rely on comprehensive metadata (Yeo in Adu, 2014). Access controls are critical for preserving record integrity, with ISO guidelines emphasizing movement tracking to facilitate record location. The Archives and Records Management Policy (2011) underscores the importance of controlling and updating record locations for efficient retrieval. Adamu (2015) emphasizes that effective retrieval is essential in both manual and electronic records management. Systems should include rules for classification, titling, security, and retention to enable easy access. ISO (2001) states records should be accessible only to authorized users, with search functions based on reference numbers, subjects, or keywords. Well-managed e-records utilize diverse search criteria across metadata fields, including content search capabilities. Features like optical character recognition improve search specificity (TechTarget, 2011). Incorporating free text, Boolean, and query-based searches ensures a consistent user interface across classification levels (European Commission, 2001).

Electronics records security.

Libraries face increasing challenges in information security amid evolving uncertainties (Rehman, 2014). The digital revolution underscores the importance of safeguarding knowledge and technology. Electronic records security involves protecting the integrity, confidentiality, and availability of digital assets such as databases, archives, and personal data.

Advancements in cloud storage and emerging threats complicate e-records management. Organizations must develop strategies for creation, maintenance, storage, and disposal, while employing technology to safeguard records (Bey, 2012; IRMT, 2011; Russell & Gangemi, 2006). Countries invest heavily in R&D to ensure robust security measures prevent unauthorized access and damage. UNAIDS (2016) defines security as technical approaches for physical, electronic, and procedural protections. ISO 15816 (2002) stresses effective, economical security management to protect assets, including information, during storage, processing, and transmission—ensuring that only authorized users access records.

Saffady (2016) highlights that electronic security addresses confidentiality, data protection, and disclosure, involving policy development, threat monitoring, breach response, and stakeholder collaboration. Bigirimana (2015) notes that staff awareness is often lacking, despite existing security measures like system backups, access restrictions, password protections, and database security. The ICA (2008) recommends maintaining audit trails of system actions to deter threats such as eavesdropping (Private Technical Assistance Centre, 2011). Encryption and digital signatures are vital for securing online data (Cherdantseva & Hilton, 2013). Security protocols should be applied at all levels—file, folder, and system—to protect intellectual property, research, and student data, bolstering trust and ensuring compliance with privacy standards.

Methodology

his study employed a correlational survey design (Nworgu, 2015) to examine the relationship between Computer Self-Efficacy and Librarians' Job Performance in South-South Nigeria's university libraries. The population comprised 148 librarians—68 from federal and 80 from state universities—census sampling was used, yielding the full sample.

Data collection involved the Computer Self-Efficacy Scale (CSES), adapted from Murphy, Coover, and Owen (1989), with 27 items rated on a 4-point scale, and the Job Performance Questionnaire (JPQ) based on Campbell et al. (1993), with 19 items assessing job performance. The combined instruments totaled 79 items. Reliability was confirmed via Cronbach's Alpha—.845 for ERMPS, .89 for CSES, and .87 for JPQ—based on a pilot test with 20 librarians not in the main sample (Creswell, 2014).

Researchers distributed 148 questionnaires across 16 universities; 136 were returned (92% response rate). Data analysis utilized Pearson's r for research questions one to seven, while the regression model's fit was assessed with R^2 (Muijs, 2004). Null hypotheses were tested at $p < 0.05$. All analyses were conducted with SPSS version 2021.

Results

Research Question 2

What is the relationship between electronic records retrieval and librarians' job performance in federal and state university libraries of south-south Nigeria?

Table 1: Pearson r on the Correlation between electronic records retrieval and librarians' job performance in Federal and State university libraries of south-south Nigeria

Source of Variation	n	R	Remark
Electronic Record Retrieval Job Performance	136	0.45	Moderate Positive Relationship

Table 1 demonstrates a moderate positive correlation between electronic records retrieval and librarians' job performance in federal and state university libraries in South-South Nigeria, with a Pearson's Correlation Coefficient (r) of 0.45. This result implies that enhancements in electronic records retrieval could be linked to improved job performance among librarians in this area.

Research Question 2

What is the relationship between electronic records security and librarians' job performance in federal and state university libraries of south-south Nigeria?

Table 2: Pearson r on the Correlation between electronic records security and librarians' job performance in Federal and State university libraries of south-south Nigeria

Source of Variation	n	R	Remark
Electronic Record Security Job Performance	136	0.49	Moderate Positive Relationship

Table 2 reveals a moderate positive relationship between electronic records security and the job performance of librarians in federal and state university libraries in South-South Nigeria, as indicated by a Pearson's Correlation Coefficient (r) of 0.49. This finding suggests that enhanced security measures for electronic records may contribute to improved job performance among librarians in this region.

Discussion of Findings

Electronic Records Retrieval and Librarians' Job Performance

Research question 1 findings indicate a moderate positive correlation ($r = 0.45$, $p < 0.05$) between electronic records retrieval and librarians' job performance, suggesting that effective retrieval systems enhance performance via easier access to information.

Electronic Records Security and Librarians' Job Performance

Similarly, research question 2 shows a moderate positive relationship ($r = 0.49$, $p < 0.05$) between electronic records security and job performance. This highlights the importance of security measures in improving librarians' efficiency, protecting sensitive data, and fostering professional growth. Overall, the study confirms a significant positive correlation between electronic records management practices, computer self-efficacy, and librarians' job performance in South-South Nigeria's university libraries.

Conclusion and Recommendations

Research question 3 shows a moderate positive correlation ($r = 0.45$, $p < 0.05$) between electronic records retrieval and librarians' performance, indicating that effective retrieval systems enhance performance through better access to information. Research question 4 reveals a similar relationship ($r = 0.49$, $p < 0.05$) between records security and performance, highlighting the importance of security in improving service quality and protecting sensitive data. Overall, the study confirms a significant positive link between electronic records management, computer self-efficacy, and librarians' job performance in South-South Nigeria's university libraries.

Acknowledgement:

The researchers' gratitude goes to readers during the PhD thesis processing for their constructive criticisms, painstaking guidance, expertise, and valuable contributions, which helped make this research work a success. They are really "academic parents and mentors". Researchers sincerely express profound gratitude to CHATPDF tools to reduce the words and plagiarism due to the Thesis already uploaded award degree institution IR platform that the PhD was completed. In addition, references of authors cited.

1. REFERENCES

[1] Abdulrahman, A. B. (2015). Management of university records for effective administration of universities in north central Nigeria. International Journal of Library and Information Science, 7(3), 47–54. https://doi.org/10.5897/IJLIS2014.0529

[2] Adamu, B. M. (2015). Assessment of the organization and retrieval of students' records in Ahmadu Bello University, Zaria [Unpublished thesis]. Ahmadu Bello University.

[3] Adu, F. (2014). Assessment of records management practices among the administrative staff of University of Education, Winneba – Kumasi (UEW-K) and Mampong (UEW-M) Campuses [Master's thesis]. Kwame Nkrumah University of Science and Technology.

Akanwa, P. C., & Udo-Anyanwu, A. J. (2017). Information resources in the library. Supreme Publishers.

[4] Allison, G. O. (2017). Records management practices, computer literacy skills and job performance of registry staff of universities in Ogun State, Nigeria [Master's dissertation]. Babcock University.

[5] Allison, G. O. (2021). Records management practices and job performance of registry staff of universities in Ogun State, Nigeria. International Journal of Academic Management Science Research, 5(9), 69–78. http://www.ijeais.org/ijamsr

[6] Asogwa, B. E. (2013). The readiness of universities in managing electronic records: A study of three federal universities in Nigeria. The Electronic Library, 31(6), 792–807. https://doi.org/10.1108/EL-09-2012-0118

[7] Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

[8] Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.

[9] Bigirimana, S., Jagero, N., & Chizema, P. (2015). An assessment of the effectiveness of electronic records management at Africa University, Mutare, Zimbabwe. British Journal of Economics, Management & Trade, 10(1), 1–10.

[10] Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), Personnel selection in organizations (pp. 35–70). Jossey-Bass.

[11] Cherdantseva, Y., & Hilton, J. (2013). A reference model of information assurance & security. http://users.cs.cf.ac.uk/Y.V.Cherdantseva/RMIAS.pdf

[12] Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). Routledge.

[13] Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE.

[14] European Commission. (2001). Model requirements for the management of electronic records (MoReq). Office for Official Publications of the European Communities.

[15] International Council on Archives (ICA). (2008). Principles and functional requirements for records in electronic office environments: Module 2, guidelines and functional requirements for electronic records management systems. http://www.ica.org/sites/default/files/ERMS_v1.0.pdf

[16] International Organization for Standardization (ISO). (2001). *ISO 15489-1: Information and documentation — Records management — Part 1: General*.

[17] Kahn, M., & Duffy, V. (2021). The role of electronic records management in modern libraries. Journal of Information Science, 47(3), 345–360. https://doi.org/10.1177/0165551520981302

[18] Murphy, C. A., Coover, D., & Owen, S. V. (1989). Development and validation of the Computer Self-Efficacy Scale. Educational and Psychological Measurement, 49(4), 893–899. https://doi.org/10.1177/001316448904900412

[19] Musembe, C. N. (2019). E-records security management at Moi University, Kenya [Doctoral thesis]. University of KwaZulu-Natal. https://researchspace.ukzn.ac.za/handle/10413/18110

[20] Nworgu, B. G. (2015). Educational research: Basic issues and methodology (3rd ed.). Wisdom Publishers.

[21] Patten, M. L. (2005). Understanding research methods: An overview of the essentials (6th ed.). Pyrczak Publishing.

[22] Saffady, W. (2016). Records management's interactions with information governance stakeholders. Information Management Journal, 50(5), 24–31.

[23] Tasmania Archive and Heritage Office (TAHO). (2015). Implementing information security classification in EDRMS. https://www.informationstrategy.tas.gov.au

[24] TechTarget. (2011). What's the difference between ICR and OCR technologies? http://www.searchcontentmanagement.techtarget.com

[25] Ukata, P. F., & Wechie, N. (2019). Electronic records management and national development: A case of Nigeria. International Journal of Social Sciences and Management Research, 5(2), 35–57. http://www.iiardpub.org

[26] Yakubu, H. G., & Dauda, A. (2022). Use of retrieval tools for records access in the registry division of agricultural colleges, Ahmadu Bello University, Zaria. Samaru Journal of Information Studies, 22(1), 45–60.