

AVAILABILITY AND USE OF OFFLINE ELECTRONIC RESOURCES FOR EFFECTIVE INFORMATION SERVICE DELIVERY IN PUBLIC UNIVERSITY LIBRARIES IN NORTH-EAST, NIGERIA

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Abstract

This study examined the availability and use of offline electronic resources for effective information service delivery in public university libraries in North-east Nigeria. The study was guided by three 3 specific objectives. A survey research design was adopted, involving a population of 187 academic librarians and heads of e-libraries across 13 public university libraries. A purposive sample of 120 participants was drawn from six institutions and data were collected using questionnaires and an observation checklist. Descriptive statistics, including frequency counts, percentages, means, and standard deviations, were used for analysis. Findings revealed that key information services such as Current Awareness Services, literature search services, document delivery, reference services, circulation, Selective Dissemination of Information, user education, and photocopying are available across all surveyed libraries. The study further established that offline electronic resources including e-books, e-journals, databases, e-articles, and theses/dissertations are widely available, although resources such as e-newspapers show limited availability. Analysis of utilisation levels showed high use of offline e-books e-journals databases and e-articles respectively. Conversely, offline e-theses/dissertations, e-newspapers, and CD-ROM/DVD-based materials recorded low levels of use. The study concludes that offline electronic resources remain essential for sustaining uninterrupted information service delivery in the region's public university libraries. It recommended that public university libraries should expand their existing range of information services, increase the quantity and variety of offline electronic resources, develop comprehensive training programs to increase the usage and awareness of offline electronic resources,

Key words: Information service delivery, University libraries, offline electronic resources, offline e-books, offline e-journals, offline database

Introduction

Information service delivery is a medium, systems as well as mechanism through which libraries provide users with access to information resources and services across various platforms and devices. It encompasses all processes, systems, and activities designed to

ensure that users receive timely, accurate, and relevant information. According to Agoh and Omekwu (2021) information service delivery involves the deployment of library operations and technologies to enhance users' experiences and productivity. In this regard, effective information service delivery forms the backbone of public university libraries thereby enabling them to fulfill their mission of facilitating knowledge creation and dissemination within the university community.

University libraries serve as essential repositories of knowledge and facilitate scholarly collaboration thereby providing access to a wide array of resources encompassing books, journals, databases, and multimedia materials (Devan, 2020). Furthermore, they serve as dynamic spaces where students, faculty, and researchers engage in information literacy development, honing research skills, and intellectual exploration.

Public university libraries in North-east Nigeria are confronted with numerous challenges that hinder their capacity to deliver effective information services to their users. Okogwu (2019) revealed that intermittent power supply and limited Internet infrastructure impede access to online resources, hampering research and learning activities. Therefore, offline electronic resources are necessary for continued information services delivery by librarians in public university libraries. Offline electronic resources are informational content that can be accessed through computer systems or other electronic devices without the need for an Internet connection. These resources encompass a variety of formats, including electronic books (e-books), electronic journals (e-journals), electronic indexes, digital reference materials, offline databases, and other forms of digital content (Anyim, 2023). Offline electronic resources offer several advantages, including content accessibility, mobile compatibility, and cost-effectiveness. By providing access to digital content offline, libraries can ensure uninterrupted research and learning activities, thereby enhancing the academic experience of users in the region. Moreover, the mobile accessibility of offline electronic resources allows users to access educational content using their smartphones or tablets (Yakubu and Akande, 2021). This mobile flexibility enhances the convenience of information access and caters for the diverse learning preferences and lifestyles of library users.

Statement of the problem

Integrated offline electronic resources have the potential to provide responsive, user-centered, and uninterrupted access to information in university libraries. Study by Hassan, Farouk, Kudu & Umar (2018); Adegbilero and Hamzat (2017) have emphasised their role in improving information service delivery and expanding digital access. However, public

university libraries in North-east Nigeria continue to face major challenges, including inadequate infrastructure, poor Internet connectivity, limited funding, and low user awareness, which hinder effective use of electronic resources. These issues restrict access to essential information, delay service delivery, and reduce the benefits of digital innovations for teaching and research. Mamman, Bappah & Abubakar (2022); Uzoagba, 2019; Yuvaraj, 2016; Alabi & Sani, 2021) have examined infrastructural and policy constraints in developing country libraries, little attention has been given to the role of offline electronic resources in enhancing information service delivery within the specific context of North-east Nigeria. This study, therefore, seeks to address this gap by investigating how the use of offline electronic resources influences the quality and efficiency of information service delivery in public university libraries in the region.

Objectives of the study

The specific objectives of the study are to:

- i. ascertain types of information services delivery in public university libraries in North-east Nigeria;
- ii. ascertain the types of offline electronic resources that are available in public university libraries in North-east, Nigeria for information service delivery; and
- iii. determine the level of use of offline electronic resources in public university libraries in North-east, Nigeria for information service delivery.

Review of Related Literature

Information service delivery remains a core function of university libraries thereby ensuring users access to relevant resources that support research, learning, and knowledge creation. According to Ikonne, Adereolu & Adegoke (2024) service delivery is an act of providing assistance to users in their quest for information thereby emphasising the librarian's role in guiding and supporting user-information needs even within resource-constrained environments. Uwandu and Osuji (2022) identify a wide range of information services commonly delivered in university libraries, including reference services, circulation services, abstracting and indexing services, Current Awareness Services (CAS), Selective Dissemination of Information (SDI), referral services, inter-library cooperation, Internet services, document delivery services, and consultancy services. In environments with inconsistent network availability, most of these services especially reference services,

literature search support, and SDI can still be effectively delivered through offline electronic tools.

Similarly, Alabi and Sani (2021) highlight circulation services, interlibrary loan services, CAS, and SDI as essential components of library service delivery. These services depend heavily on efficient access systems, which can be supported by offline electronic platforms for cataloguing, user records, and local digital collections. Ranjan (2023) further categorises information services into responsive and anticipatory types. Both categories can be strengthened through offline access tools that enable librarians to retrieve, store, and disseminate information without relying on constant Internet connectivity.

Electronic resources (e-resources) are information assets accessible and distributable through digital technology. Okereke (2019) highlights that electronic information resources, presented in digital formats, contain the same content as print resources but differ in their format and accessibility, requiring computer technology for their use. These resources encompass a variety of formats, including CD-ROMs base materials, electronic books (e-books), electronic journals (e-journals), electronic indexes, digital reference materials, offline databases, image collections, multimedia products and other forms of digital content (Anyim, 2023; Ibrahim and Tukur, 2024).

Offline electronic resources are various forms of information stored on platforms or devices like hard disks, CD-ROMs, flash drives, and DVDs, providing access without active Internet connectivity which plays a vital role in enhancing information service delivery (Araoye, Oguntade & Jegede 2019). Yakubu and Omotoke (2015) added that offline e-resources are stored on physical media such as hard drives, flash drives, and CD-ROMs. Similarly, Hassan *et al.*, (2018) opined that Offline resources come in various forms, including CD-ROM-based materials, offline e-books, e-dictionaries, MS Office applications, and training software for offering access to content without network connectivity thereby allowing authorised library patrons to access, copy, and print materials without concerns about network failures.

Types of offline electronic resources and their uses

The various types of offline electronic resources, including offline e-books, e-journals, databases, e-thesis/ dissertations, offer distinct advantages and contribute immensely to diverse library settings for effective information service delivery.

Offline e-books is an abbreviation of electronic book which refers to a book presented in a digital format. E-books can be read on various devices such as computers, tablets, smartphones, or dedicated e-readers (Tarigan, Kembaren, Fionasari, Pambudi, & Harton

2024). As a form of offline electronic resource, e-books are digital files that contain text and images, formatted for electronic distribution, much like traditional printed books (Attwell, 2024). These resources are invaluable in remote or underserved communities for ensuring uninterrupted access to educational materials. Libraries use these resources to enhance users' academic experiences by providing continual research and learning opportunities, while the mobile accessibility of offline resources enhance convenience (Yakubu and Akande, 2021).

Offline e-journals are digital versions of academic and professional periodicals that can be accessed without requiring an active Internet connection once they have been downloaded or installed. Offline journals are journals published on CD-ROMs or other media that do not require Internet access (Salau and Gama, 2015). They are typically distributed via physical media like CDs or DVDs, or through local institutional servers. This accessibility supports academic research by ensuring that users have reliable access to current and past issues of journals, which can be crucial for comprehensive literature reviews and ongoing research projects (Ternenge, and Kashimana, 2019). Offline e-journals also reduce the variability associated with online access, such as slow loading times or website outages, thereby providing a more stable research experience.

E-newspapers these provide digital versions of daily or weekly newspapers, offering current news and information in a convenient format (Erbrich, 2024). E-newspapers provide up-to-date news coverage and information thereby supporting current awareness and research in various fields. They allow users to stay informed about recent developments and trends.

Offline database is a locally stored system that allows libraries to manage and access electronic resources without an Internet connection. These can be stored on various platforms and devices, such as internal or external hard drives, flash drives, e-granary systems, and optical media like CDs, DVDs, and Zip CDs. Muhammad (2021) further describes these electronic containers as critical for libraries' information management. Moreover, Yusuf and Farouk (2017) highlighted that electronic databases are invaluable for studying, learning, and research. They provide significant advantages over traditional print resources and play significant role in enhancing the effectiveness of information service delivery.

Empirical evidence supports the continued relevance of these services. Adamu *et.al* (2019) studied "Influence of New Media on Information Service Delivery in University Libraries in North East Geo-Political Zone, Nigeria" aimed to investigate the role of new media in enhancing information services within university libraries. The total population for this research comprised 352 librarians and library officers from thirteen university libraries, with a purposive sample size of 144 participants, consisting of 76 librarians and 68 library officers

drawn from seven universities in relatively safer states due to the Boko Haram insurgency. The findings indicated various types of information services available, such as reference services, circulation services, and current awareness services, with a significant influence of new media on effective service delivery identified. The similarities of the studies are that, both studies focus on enhancing information service delivery in university libraries in North-east Nigeria, while the difference was the first study concentrates on the influence of new media, such as social networking platforms, whereas the second study examines with the use of offline electronic.

Edem and Edem (2025) examined the availability and utilization of electronic resources by postgraduate students at the University of Calabar Library. Using a descriptive survey design, the study targeted 2,726 postgraduate students and selected a stratified sample of 400 (200 each from the Faculties of Education and Science). Data were collected through structured questionnaires, with 382 valid responses (95.5% response rate) and analysed using the Pearson Product Moment Correlation Coefficient at a 0.05 significance level. Findings from the study revealed that electronic resources such as e-journals and e-books were available and accessed by postgraduate students with a notable utilisation of e-journals. However, several challenges hindered effective use of these resources, including lack of computer literacy, slow and inconsistent Internet connectivity, frequent power outages, and the overwhelming presence of irrelevant information.

Chukwusa and Oshiokpu (2024) investigated the availability, awareness, and utilization of offline e-book platforms and online databases in university libraries. Using a descriptive survey design, the study involved 135 valid responses from students of Delta State University and the Federal University of Petroleum Resources, representing a 96.4% response rate. Data were collected through questionnaires and interviews and analysed using descriptive statistics. The findings revealed that although online databases are readily available and well-known among students, offline e-book platforms remain poorly recognised and underutilised. Key challenges identified include low awareness, inadequate ICT infrastructure, and unreliable Internet connectivity. The study concluded that improving awareness, upgrading ICT facilities, and providing training could significantly enhance students' use of offline and online digital resources.

Research Methodology`

The study adopted survey research design method. The population of the study comprised 187 academic librarians and heads of e-libraries drawn from 13 public university libraries in

North-East Nigeria. From this population, a sample of 120 respondents was selected from six institutions. These included three federal and three state universities: Ramat Library, University of Maiduguri; Federal University Kashere Library, Gombe; Federal University Gashua Library, Yobe; Dr. Goodluck Ebele Jonathan Library, Yobe State University, Damaturu; Abdullahi Mahdi Library, Gombe State University, Gombe; and Borno State University Library, Maiduguri.

A purposive sampling technique was employed to select these libraries. This approach was guided by considerations of accessibility, operational convenience, and prevailing security conditions in the region. As noted by Nyimbili and Nyimbili (2024), convenience sampling involves selecting participants based on accessibility, proximity, and relevance to the research. Instruments used was questionnaire and an observation checklist. Simple frequency, percentage, Mean and standard deviation were used for data analysis and weighted Mean score were used to arrive at the decision.

Results

A total of one hundred and twenty 120 copies of the questionnaires were administered, but 101 copies were filled, returned and found usable for the analysis which represents 84% returned rate. Data collected were analysed using descriptive statistics. All six the (6) copies of the checklist used by the researcher for data collection on the types of information services and types of offline electronic resources available were completed.

Table 4.1 Types of Information Services available in Public University Libraries in North-east, Nigeria

S/N	INFORMATION SERVICES	UNIMAID	FUK	FUGA	YSU	GSU	BOSU
1.	Current Awareness Services	√	√	√	√	√	√
2.	Literature search services	√	√	√	√	√	√
3.	Document delivery services	√	√	√	√	√	√
4.	Reference services	√	√	√	√	√	√
5.	Circulation services	√	√	√	√	√	√
6.	Selective Dissemination of Information	√	√	√	√	√	√
7.	Orientation and user education programmes	√	√	√	√	√	√
	photocopying services	√	√	√	√	√	√

Source: Field work 2024;

The provided checklist shows types of information services available in public university libraries in the North-east Nigeria under study. The data covers six institutions: University of

Maiduguri (UNIMAID), Federal University Kashere (FUK), Federal University Gashua (FUGA), Yobe State University (YSU), Gombe State University (GSU), and Borno State University (BOSU). All the six university libraries have available information services such as Current Awareness Services (CAS), Literature Search Services, Document Delivery Services, Reference Services, Circulation Services, Selective Dissemination of Information (SDI), Orientation and User Education Programs, and Photocopying Services. These services highlight the universities' focus on supporting students and researchers in accessing up-to-date academic materials, locating resources efficiently, and enhancing user awareness of available library resources. The findings of this study are in line with Adamu *et al.* (2019) which revealed that diverse types of information services are available in university libraries in North-east geo-political zone, which established that reference, circulation current awareness, selective dissemination of information, referral and serials services were available. The research supports the notion that libraries must adapt their services to address the specific requirements of their user communities, particularly in regions with unique challenges.

Table 4.2: Types of Offline Electronic Resources that are Available in Public University Libraries in North-east, Nigeria

S/N	Offline Electronic Resources	UNIMAID	FUK	FUGA	YSU	GSU	BOSU
1.	E-Books.	√	√	√	√	√	√
2.	Databases	√	√	√	√	√	√
3.	E-Journals	√	√	√	√	√	√
4.	Theses/ Dissertations	√	√	√	√	√	×
5.	E-Newspapers	×	×	×	√	√	×
6.	E-Articles	√	×	√	√	√	√

Source: Field work 2024;

The data presented in Table 4.2 reveals that offline e-books, databases, and e-journals, are available in all the six public university libraries surveyed. However, there are some variations in the availability of specific resources: e-theses/dissertations were available in five libraries, excluding Borno State University Library; e-newspapers were only available in Yobe State University and Gombe State University, suggesting a limited focus on this resource in some institutions; and e-articles were available in five libraries, except Federal University, Kashere. These findings are supported by Edem and Edem, (2025) which reported the availability of electronic resources such as e-journals and e-books in a university library. The study confirmed that these resources were accessible to postgraduate students and formed a vital component of the library’s academic infrastructure. The consistency in

findings across the different regions underscores a growing trend in Nigerian university libraries to maintain a base collection of offline electronic resources to ensure information access regardless of Internet limitations.

Table 4.3: Level of Use of Offline Electronic Resources for Information Service Delivery in Public University Libraries in North-east, Nigeria

S/N	Statements	VHL (4)	HL (3)	LL (2)	VLL (1)	FX	N	Mean	Std. Dev.	Decision
1	The level of use of offline e-books for effective information service delivery in your library.	36 (35.6)	43 (42.6)	20 (19.8)	02 (2.0)	315	101	3.12	.791	High
2	The level of use of offline databases for effective information service delivery in your library.	36 (35.6)	32 (31.7)	31 (30.7)	02 (2.0)	304	101	3.01	.866	High
3	The level of use of offline e-journals for effective information service delivery in your library.	34 (33.7)	40 (39.6)	25 (24.8)	02 (2.0)	308	101	3.05	.817	High
4	The level of use of offline e-theses/dissertations for information service delivery in your library.	22 (21.8)	35 (34.7)	38 (37.6)	06 (5.9)	275	101	2.72	.873	Low
5	The level of use of offline e-newspapers for effective information service delivery in your library.	25 (24.8)	27 (26.7)	40 (39.6)	09 (8.9)	270	101	2.67	.950	Low
6	The level of use of CD-ROM/DVD based material for effective information service delivery in your library.	21 (20.8)	33 (32.7)	35 (34.7)	12 (11.9)	265	101	2.62	.947	Low
7	The level of use of offline electronic articles for information service delivery in your library.	30 (29.7)	33 (32.7)	35 (34.7)	03 (3.0)	292	101	2.89	.871	High
Weighted Mean								2.87		

Key: Very High Level (VHL) = 4, High Level (HL) = 3, Low Level (LL) = 2, Very Low Level (VLL) = 1

The research findings on the use of offline electronic resources (OER) in libraries revealed a varying level of utilisation for different resources, based on the responses from 101 participants. The overall weighted Mean score of 2.87 suggests a moderate level of use of offline electronic resources for information service delivery. Specifically, the use of offline e-books, offline databases, and offline e-journals is rated as "High" (Mean scores of 3.12, 3.01, and 3.05 respectively). On the other hand, the level of use of offline e-theses/dissertations, offline e-newspapers, and the use of CD-ROM/DVD based materials is rated as "Low" (Mean scores of 2.72, 2.67, and 2.62 respectively), suggesting that these resources were less frequently utilised or less critical for information service delivery in these libraries. The use of offline electronic articles is also rated "High" (Mean score of 2.89). The standard deviations for most resources (ranging from 0.791 to 0.950) suggest some variability in responses, reflecting differing opinions on the effectiveness of these resources in information service delivery. These findings are inconsistent with research by Chukwusa and Oshiokpu (2024) which reported that offline e-books are lowly utilised in university libraries and that students were only aware of a small number of subscription and open access databases among the many databases and offline e-books platforms available in the libraries are under review.

Conclusion

Based on the findings, it can be concluded that public university libraries in North-east Nigeria offer a wide range of information services and moderately utilise offline electronic resources to support information service delivery. The study revealed offline electronic resources such as e-books and e-journals are highly used in public university libraries in North-east, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are made to enhance information service delivery in public university libraries in North-East Nigeria:

1. Public university libraries should continue to strengthen current information services and introduce new services like digital awareness and research support.
2. Public university libraries should increase the quantity and variety of offline electronic resources such as e-books and e-journals.
3. They should promote greater use of offline electronic resources via user training and awareness programs.

References

- Adamu, A. L. G., Babalola, G. A. & Saka, K. A. (2019). Influence of New Media in Information Service Delivery in University Libraries in North East Geo-Political Zone, Nigeria. *International Journal of Information Processing and Communication (IJIPC)* 7(2), 50-60.
- Agoh, A. J. & Omekwu, C. O. (2021). Library and information services delivery and researchers' scholarly communication outputs in agricultural research institutes in North-Central, Nigeria. *International Journal of Library and Information Science Studies*, 7(1), 9-24
- Alabi, C. O. & Sani, J. O. (2021). Librarians and Information Service Delivery in Kogi State Nigeria during Covid-19 pandemic. *Journal of applied Information Science and Technology*, 14(1), 107-117. Retrieved from <https://www.jaistonline.org/14vol1/12.pdf>
- Anyim, W. O. (2023) Relevance of Electronic Resources and Improvement of Access for Effective Distance Learning and Continuing Education Programme. *International Journal of Asian Education (IJAE)*, (2)1, 52-63. doi: 10.46966/ijae.v2i1.83
- Araoye, N. A., Oguntade, A. E., & Jegede, V. O. (2019). Utilization of Electronic Information Resources Among University Libraries Users in Kwara State, Nigeria. *Journal of Library and Information Sciences*, 6(2), 55-68.
- Attwell, A. (2024). E-book. *Encyclopedia Britannica*. <https://www.britannica.com/technology/e-book>
- Chukwusa, J., & Oshiokpu, E. I. (2024). Availability, Awareness and Utilisation of Offline E-book Platforms and Other Online Databases in University Libraries. *ESUT Journal of Social & Humanities*, 9(2), 352-362.
- Devan, N. (2020). Role of Academic Libraries in Research. [PDF file] Retrieved from <https://www.researchgate.net/publication/339473798>
- Edem, N. B., & Edem, E. A. (2025). Availability and Utilisation of Electronic Resources by Postgraduate Students in the University of Calabar Library. *Global Journal of Pure and Applied Sciences*, 31(2), 373-381. DOI: <https://dx.doi.org/10.4314/gjpas.v31i2.23>
- Erbrich, L. (2024). Digital News Bundles: Analyzing Consumers' Willingness to Pay for Cross-Publisher Journalistic Bundles. *Journalism and Media* 5: 1279-1296. <https://doi.org/10.3390/journalmedia5030081>
- Hassan U., Farouk, B. L., Kudu, A. M. D & Umar, A. M. (2018). Provision and Utilisation of Offline Information Contents Nigerian Academic Libraries for Sustainable National Development. *International Journal of Information Processing and Communication (IJIPC)* (6)1 , 101-107
- Ibrahim, N. & Tukur, B. (2024). Electronic Resources Selection, Acquisition and Preservation Methods in Selected Federal Universities' Libraries in Northwestern Nigeria: Challenges

- and Way Forward. *International Journal of Contemporary Education & Management (IJCEM)* 45(4), 55-67.
- Ikonne, C. N., Adereolu, O., & Adegoke, O. (2024). *Information literacy skills and service delivery of librarians in state universities in South-West, Nigeria*. *IOSR Journal of Humanities and Social Science*, 29(11, Series 2), 59–67. <https://doi.org/10.9790/0837-2911025967>
- Mamman, H. A., Bappah, M. & Abubakar, B. M. (2022). Challenges of Access and Use of Electronic Information Resources among Students of Higher Institutions in Taraba State, Nigeria. *Covenant Journal of Library and Information Science*, 5(1), 2682-5295
- Muhammad, A. (2021). *Cloud Computing Application and Offline Database Provision as Correlates of Effective Service Delivery in University Libraries in North-west, Nigeria*. [Unpublished master's thesis] Federal University of Technology, Minna.
- Nyimbili F. & Nyimbili L. (2024) Types of Purposive Sampling Techniques with Their Examples and Application in Qualitative Research Studies. *British Journal of Multidisciplinary and Advanced Studies: English Lang., Teaching, Literature, Linguistics & Communication*, 5(1),90-99, doi: <https://doi.org/10.37745/bjmas.2022.0419>
- Okereke, W. A. (2019). Electronic Information Resources for Learning and Research Activities among Undergraduate Students in the University Library. *Journal of Computer Science and Technology Studies*, 1(1), 28-35
- Okogwu, F. I. (2019) Difficulties of Accessing Electronic Resources Among Postgraduate Library Users in University Libraries in Southeast Nigeria. *Library Philosophy and Practice (e-journal)*. 2425. <https://digitalcommons.unl.edu/libphilprac/2425>
- Ranjan, P. (2023). Outline of Information Services in Libraries. In N. Pachauri, *Research in Library & Information Science* (pp. 103-120). Agra: Associated Publishing House.
- Salau, S. A. & Gama, U. G. (2015). Access to and Use of Electronic Journals in Selected Federal University Libraries in the Federal Capital Territory and North Central Zone of Nigeria. *African Journal of Library, Archives & Information Science*, 25(2), 161-171 <https://www.researchgate.net/publication/283321126> [Access to and Use of Electronic Journals in Selected Federal University Libraries in the Federal Capital Territory and North Central Zone of Nigeria](https://www.researchgate.net/publication/283321126)
- Tarigan, R, J., Kembaren, B. P., Fiona sari, R., Pambudi, N., & Hartono, R, N. (2024). Analysis of the Effectiveness of E-Books in Increasing Students' Digital Literacy. *Journal Emerging Technologies in Education*, 2(1), 36–48, <https://doi.org/10.55849/jete.v2i1.736>
- Ternenge, T. S. & Kashimana, F. (2019). Availability, Accessibility, and Use of Electronic Information Resources for Research by Students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. *Library Philosophy and Practice (e-journal)*, 2352 Retrieved from <https://digitalcommons.unl.edu/libphilprac/2352>.

- Uwandu, L. I., & Osuji, C. E. (2022). *Strategies used by librarians in marketing information resources and library services in Federal University of Technology, Owerri and Imo State University, Owerri*. *Library Philosophy and Practice*, Article 7336. <https://digitalcommons.unl.edu/libphilprac/733>
- Uzoagba, N. C. (2019). *Availability and Use of Library Resources and Services in National Open University of Nigeria (NOUN)*. [Unpublished Doctoral dissertation] University of Nigeria, Nsukka
- Yakubu, S. & Akande, S. A. (2021). Utilisation of Offline Electronic Resources by Students in Tertiary Institutions in North-West Nigeria. *Journal of Library and Information Services in Distance Learning*, 15(1-2), 97-108.
- Yakubu, H. & Omotoke, O. O. (2015). 584 Use of Electronic Resources in Teaching and Learning at Federal University, Dutsin-Ma, Nigeria. *Mediterranean Journal of Social Sciences*. 6(1), 584-593, doi:10.5901/mjss. 2015.v6n1p584
- Yusuf, M. & Farouk, B. L. (2017). Awareness, Access and Use of Academic Databases by Faculty Members: A case study of Bayero University Library, *International Journal of Library & Information Science*, 6(3), 13–26, <http://www.iaeme.com/IJLIS/issues.asp?JType=IJLIS&VType=6&IType=3>.

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