

JOURNAL OF INFORMATION RESOURCE MANAGEMENT (JIRM)

VOLUME 11, NUMBER 1 - 2026

ISSN 2141-2014



A Publication of the Niger State Chapter of
**THE NIGERIAN LIBRARY
ASSOCIATION (NLA)**

JOURNAL OF INFORMATION RESOURCE MANAGEMENT

VOLUME 11 NUMBER 1 JULY 2026

ISSN 2141-2014



**A PUBLICATION OF THE
NIGER STATE CHAPTER OF
THE NIGERIAN LIBRARY ASSOCIATION**

JOURNAL OF INFORMATION RESOURCE MANAGEMENT (JIRM)

The Journal of Information Resource Management is a peer-reviewed journal of the Nigerian Library Association, Niger State chapter that publishes articles once a year; articles are received throughout the year. Specifically, the journal covers the areas of Library Science, Information Science, Knowledge Management and allied disciplines for the purpose of promoting interdisciplinary studies in Library/ Information related disciplines. The goal of the journal is to bring together researchers and practitioners from academia and industry to focus on areas of LIS exploration.

Contributions to the journal should be original contributions of author(s) and should not be under consideration for publication in another journal outlet. Submission of articles should be in line with the following guidelines.

- Language of communication must be in British English and authors are advised to use the current APA manual for their writing.
- The authors' names(s), position, highest qualification, place of work and address and email should be provided.
- Authors should ensure that complete references are given in alphabetical order. Citation of an author's work in text should follow the author/date method of citation. The surname of the author(s) and year of publication should appear in text. Generally, the format of citation in the manuscript for references is that of the latest edition of the APA at the end of the article.

Reference to journal articles should be in the following order:

Ibrahim, U. (2003). Changes, characteristics and analysis of information contents of quarterly Journal of Administration. *Nigeria Libraries* 37 (3), 1-10.

References to books should be in the following order:

Lawal, O.O. (2003). *Professional Education for Librarianship: International perspectives*. Ibadan: Spectrum, 102p

References to contributors in collected works should be in the following order: Abari, J.O and White, T.P. (2005). Information retrieval and usage. In

A. Okoti (Ed), *Use of Information for Decision Making* (Pp.20- 28). Nigeria: JIP.

Newspaper:

John, M.A. Cash prize for the best institute of management student.

National Concord, May 20, 1987, P9

- Abstract for each article should be summarised in about 150-200 words, serving as description of content of article. In addition, authors are to supply 4-5 keywords that characterise the content of the article which can be used for indexing purposes.
- All manuscripts should be submitted electronically as an e-mail attachment (Microsoft Word format not scanned copies) to: jirmniger@gmail.com
- Contributors are required to pay an assessment fee of N5,000.00 upon submission and papers that are accepted will be published with further payment of N30, 000.00
- Authors should ensure that their papers are subjected to plagiarism tests. Any plagiarism related issue is solely the responsibility of authors.

Disclaimer:

The views and styles expressed in the articles in this publication are those of the individual authors and are not necessarily shared by the reviewers, editors, editorial advisory board or the NLA, Niger State Chapter.

JOURNAL OF INFORMATION RESOURCE MANAGEMENT (JIRM)

Editor-in-Chief

Professor A. O. Ahmed

Department of Library and Information Science,
University of Abuja,

ganiyokahmed@gmail.com

08137060888

Managing Editor

Dr Sadiat Adetoro Salau

University Library Services,
Federal University of Technology,
Minna

adetoro@futminna.edu.ng

Assistant Managing Editor

Mrs Rukaiya Musa

Department of Library and Information Science,
Federal University of Technology,
Minna

rukaiya.musa@futminna.edu.ng

Reviewers:

Dr M. A. Obaje

University Library Services,
Federal University of Technology,
Minna,
Niger State.

Dr Hakeemat Bello

Department of Library and Information Science,
Federal University Dutsin-ma,
Katsina State.

Dr Rita Salami

University Library Services,
Federal University of Technology,
Minna,
Niger State.

Dr Hussain Musa

University Library Services,
Federal University of Technology,
Minna,
Niger State.

Dr Rhoda Goshie

University Library Services,
Federal University of Technology,
Minna,
Niger State.

Dr Garba Shambo
University Library Services,
Abdulkadir Kure University,
Minna

Dr Ify Evangel Obim
Department of Library & Information Science,
University of Nigeria,
Nsukka

Dr Miriam Salubuyi
University Library Services,
Abdulkadir Kure University,
Minna

Dr Mohammed Saba Adamu
University Library Services,
Federal University of Technology,
Minna,
Niger State.

Dr Shaka Imava,
Department of Library and Information Science,
Federal University of Technology,
Minna

Dr Abu Ahmed
University of Doha for Science and Technology,
Qatar

Editorial Advisory Board

Prof. E. M. K. Dawha
Department of Library and Information Science,
University of Maiduguri

Prof. Jibril Alhassan
Department of Library & Information Science,
Federal University of Technology,
Minna.

Prof. G.U. Oyedum
Department of Library and Information Science,
Federal University of Technology,
Minna

EDITORIAL

The Journal of Information and Resource Management (JIRM) is the official publication of the Nigerian Library Association, Niger State chapter. This is volume 11 number 1 edition of the journal published in 2026. It is a great joy to acknowledge the patronage received from the authors and the continued supports from the executives and members of the Association. To God be the glory on the production of this edition. Also, the collaborating and encouraging efforts of our Editorial Board members, advisers and peer reviewers are highly commendable. More importantly, I want register my profound gratitude to Dr. Sadiat Adetoro Salau and Mrs Rukaiya Musa, the Managing Editor and Assistant for a job well done. Specifically, Dr. Adetoro Salau has been very resourceful. In addition, the motivational support and assistance received from the Executive members of the Nigerian Library Association, Niger State chapter led by Dr. Baba Adamu CLN cannot be over emphasised.

In this edition of the journal, there are twenty - nine (29) articles written by erudite scholars and which revolved on modern and fundamental trends in library and information services. The first article is on Human Resource Development and Utilisation of Electronic Information Resources among Library and Information Science Students at the University of Ibadan, Nigeria authored by Victoria Olubola Fadeyi while the second article is on Effect of Digital Literacy on Students' Utilisation of Electronic Resources at the National Open University of Nigeria by Mercy Enefu Okwoli, Ifeoma Abigail Ajie and Rahila Rachael Hassan. The peer of Emmanuel Tunde Makinde and Florence Agbese wrote on Assessing the Selection, Acquisition, and Accreditation Processes of Academic Libraries in North-central Nigeria.

The article of Osoria Iziegbe and Blessing Chika Funom focussed on User Satisfaction and Challenges of ICT Infrastructure Deployment in Military Libraries in Abuja, Nigeria. The title "Between Access and Attack: Cybersecurity and Data Privacy in Nigeria's Public and Academic Libraries" is written by Francis O. Anaeme, Ike Patricia C, Okoro Joy Uchenna and Oraekwe Chidimma. In their contribution, Ukaegbu, Bernadette C. N. and Wagwu, Victor wrote on Artificial Intelligence and Machine Learning in Libraries in Nigeria. The seventh article written by Busa, Danlami Umar, Musa, Hussaini and Onyeabor, Grace addressed a Conceptual Framework for Enhancing Library Support for Course Accreditation in Nigerian Universities. This was followed by Interrogating the Integration Gap in Sustainable and Defensible Digital Preservation in Hybrid Records Ecosystems authored by Habib Shehu, Patience Owerre Ekpang, Felicia Nkativ Undie and Bukar Ibrahim.

Leveraging Artificial Intelligence to Improve Information Retrieval in Academic Libraries in Nigeria is written by Abubakar Hadiza Oluwatayo, Achie Jessica Kakoushio, Mahmuda Bala Mohammed, Attahiru Mohammed Idris and Ibrahim Usman. The study of Omoyemi Philomena MIKE-RAJI addressed the issue of Library Website Architecture and User Satisfaction in Two Selected Private Universities in Osun State, Nigeria while Shagabe Nda, A. M. Obaje, F. C. Chike-Okoli and Hussaini Musa's works focused on Utilization of Online Information Resources by Undergraduate Students for Academic Activities in Universities in Niger State, Nigeria. The next article is Information and Communication Technology and Information Resource Utilisation in Determining Reading Habits of Undergraduate Students in Federal Universities, North-central Nigeria: Conceptual Review written by Abdulrahman Amadu, G. A. Babalola and M. A. Salubuyi.

The study on Artificial Intelligence Tools and Research Activities among Undergraduate Students in Selected Universities in Lagos State, Nigeria is jointly written by Goshie, Rhoda Wusa, Matthew, Winifred Dufia and Abu Ahmed Adamu. The next article was co-authored by Zakariyawu Abduldayan, Fatimah Jibril Abduldayan and Amina Gogo Tafida which addressed Cultural Artefacts Preservation in Developing Communities: Evidence from Bida, Nigeria while the study on Electronic Information Resources and Utilization as Determinants of Research Competencies Among Postgraduate Students in Library and Information Science in Universities, North-central Nigeria was carried out by Mohammed, Attahiru, P.O. Chuks-Ibe and R.W. Goshie. The sixteenth article co-authored by Igbinosa Clifford Osayomore, Igbinosa Clifford Osayomore and Benson Idahosa centred on Strategies to Enhance the Organization of Legal Information Resources for Enhanced Access in Academic Law Libraries in Nigeria Universities. The next article is on Assessing Entrepreneurship

Competencies Among Library and Information Science Students of Moses Orshio Adasu University Makurdi (MOAUM) formerly Benue State University, Makurdi written by Kpughur, Terso Aloysius, Chia, Chivir, Orahembaga, Terhile, Kar, Terungwa Isaac and Sesugh Atsuku.

Information Literacy Skills for Retrieval of Information Resources by Science and Technology Students in Federal Polytechnic, Kaltungo, Gombe State, Nigeria is the eighteenth article jointly written by Mustapha Abubakar Jumare, Aminu Bello, Aishatu Ahmed Shu'aib and Rifkatu Sabo. The study of Lucy Ndidiamaka Okonkwo, Faith Tinuola Ige, Adebayo, Babafemi Richard and Frances Ngozi Nkenchor addressed Digital Librarians' Roles and Support in Enhancing Information Resource Sharing and Services for Distance Learners in the National Open University of Nigeria (NOUN). The study on the Influence of Digital Media and Serial Publications on Faculty Members' Research Productivity in Federal Universities in North-central, Nigeria: A systematic Conceptual Review is co-authored by Yisa, Solomon, J. N. Udensi and P.O. Chuks-Ibe. The twenty first article revolved on Re-conceptualising Information Retrieval through Semantic Search, Knowledge Graphs and Linked Data Technologies: Perspectives of Librarians in South-west Nigeria by Adebola Aderemi Olatoye and Oluwayinka Esther Baibe. This was followed with the title "A Survey of Knowledge Sharing Practices among Library and Information Science Professionals of University of Maiduguri, Borno State, Nigeria" written by Habiba Abdullahi, Ibrahim Wada and Bukola Agboola. In their article, Fatima Abubakar Sayyadi, Sadiat Adetoro Salau and Isah Ndashiru discussed the Adoption of Open Access Publishing among Librarians in Federal Universities in North-central Nigeria: Moderating Roles of Publishing Behaviour and Research Assessment Practices.

The study of Dafwang, Retplang Hephzibah focused on Educational Blogging: Integrating Web Blogging Technology for Teaching and Learning in Nigerian Tertiary Institutions: a Case Study of Ahmadu Bello University, Zaria. Charles Ejesei Eruanga and Ogheneyoma Esther Omoeffe addressed the issue of Digital Preservation Practices and Information Service Delivery in Private University Libraries in Edo and Delta States of Nigeria. The article on Conceptual Review of the Influence of Collection Development Policy on Accreditation of Programmes in Universities was co-authored by Mukhtar, Shamsuddeen Mustapha, Shuaibu Ndako and Firdausi Muhammad. Impediments to Effective Policy Formulation and Strategic Implementation of Digitisation in Research Institutions in Nigeria is the paper written by Hadiza Anave Abdulaziz, and Helen Emmanuel. The peer of Tomi James Babatunde, Gideon Adesina Babalola and Chuks-Ibe, Prisca Oluchi wrote on Access to and Utilization of Non-english Collections and Research Productivity among Postgraduate Students in South-west Nigerian Universities. The last article centred on Artificial Intelligence Competency of Librarians and Postgraduate Students' Research Self-Efficacy: a Review of Evidence with Insights from Kwara State, Nigeria written by R.A. Abdulraheem, F.O. Ajani and A.A. Salman

At this juncture, it is pertinent to thank our contributors once more for the continued interest in publishing your researches in our journal. Let me also express my profound gratitude to all other stakeholders that have contributed significantly towards the success of this edition. It is my hope that you will continue to patronise our Journal (JIRM) in future. Thank you and wishing you a resourceful reading.

Editor-In- Chief

Professor Abduganiy Okanla AHMED
BALS (Kano), MLIS, PhD (Ibadan), PGDE (Ilorin), Dip. Law (Bida), CLN, MNLA, MNALISE
Department of Library and Information Science,
Faculty of Social Sciences,
University of Abuja, Nigeria

CONTENTS

1. Human Resource Development and Utilisation of Electronic Information Resources among Library and Information Science Students at the University of Ibadan, Nigeria
by Victoria Olubola FADEYI 1
2. Effect of Digital Literacy on Students' Utilisation of Electronic Resources at the National Open University of Nigeria
by Mercy Enefu Okwoli (PhD, CLN), Ifeoma Abigail Ajie (PhD, CLN),
Rahila Rachael Hassan (PhD, CLN) 11
3. Assessing the Selection, Acquisition, and Accreditation Processes of Academic Libraries in North-central Nigeria
by Emmanuel Tunde Makinde (CLN), Florence Agbese (PhD, CLN) 19
4. User Satisfaction and Challenges of ICT Infrastructure Deployment in Military Libraries in Abuja, Nigeria
by Iziegbe Osoria (CLN), Funom Blessing China (PhD, CLN) 26
5. Between Access and Attack: Cybersecurity and Data Privacy in Nigeria's Public and Academic Libraries
by Francis O. Anaeme (PhD, CLN), Ike Patricia C. (CLN), Okoro Joy Uchenna (CLN),
Oraekwe Chidimma (CLN) 35
6. Artificial Intelligence and Machine Learning in Libraries in Nigeria
by Ukaegbu, Bernadette C. N. (PhD, CLN), Wagwu, Victor (PhD, CLN) 45
7. A Conceptual Framework for Enhancing Library Support for Course Accreditation in Nigerian Universities
by BUSA, Danlami Umar, MUSA, Hussaini & ONYEABOR, Grace 53
8. Interrogating the Integration Gap in Sustainable and Defensible Digital Preservation in Hybrid Records Ecosystems
by Habib Shehu, Patience Owerre Ekpang, Felicia Nkativ Undie, Bukar Ibrahim 64
9. Leveraging Artificial Intelligence to Improve Information Retrieval in Academic Libraries in Nigeria
by Abubakar Hadiza Oluwatayo, Achie Jessica Kakoushio, Mahmuda Bala,
Mohammed Attahiru, Mohammed Idris & Ibrahim Usman 74
10. Library Website Architecture and User Satisfaction in Two Selected Private Universities in Osun State, Nigeria
by Omoyemi Philomena MIKE-RAJI 83
11. Utilization of Online Information Resources by Undergraduate Students for Academic Activities in Universities in Niger State, Nigeria
by Shagabe Nda, A. M. Obaje (PhD), F. C. Chike-Okoli (PhD) and Hussaini Musa 92
12. Information and Communication Technology and Information Resource Utilisation in Determining Reading Habits of Undergraduate Students in Federal Universities, North-central Nigeria: Conceptual Review
by AMADU, Abdulrahman, G. A. Babalola (PhD) and M. A. Salubuyi (PhD) 107
13. Artificial Intelligence Tools and Research Activities Among Undergraduate Students in Selected Universities in Lagos State, Nigeria
by Goshie, Rhoda Wusa (PhD), Matthew, Winifred Dufia and Abu Ahmed Adamu (Ph.D) 117
14. Cultural Artefacts Preservation in Developing Communities: Evidence from Bida, Nigeria
by Zakariyawu Abduldayan, Fatimah Jibril Abduldayan (PhD) and Amina Gogo Tafida (PhD) 125

15. Electronic Information Resources and Utilization as Determinants of Research Competencies Among Postgraduate Students in Library and Information Science in Universities, North-central Nigeria by MOHAMMED, Attahiru, P.O. CHUKS-IBE (PhD) & R.W. GOSHIE (PhD)	134
16. Strategies to Enhance the Organization of Legal Information Resources for Enhanced Access in Academic Law Libraries in Nigeria Universities by Clifford Osayomore Igbinosa, ESQ. & Lilofa Osamiefan Ogiamien	140
17. Assessing Entrepreneurship Competencies Among Library and Information Science Students of Moses Orshio Adasu university, Makurdi (moaum) formerly Benue State University, Makurdi by KPUGHUR, Tersoo Aloysius CLN, CHIA, Chivir CLN, ORAHEMBAGA, Terhile, KAR, Terungwa Isaac and SESUGH ATSUKU, CLN	152
18. Information Literacy Skills for Retrieval of Information Resources by Science and Technology Students in Federal Polytechnic, Kaltungo, Gombe State of Nigeria by Mustapha ABUBAKAR JUMARE, Aminu BELLO, Aishatu AHMED SHU'AIB and Rifkatu SABO	162
19. Digital Librarians' Roles and Support in Enhancing Information Resource Sharing and Services for Distance Learners in the National Open University of Nigeria (NOUN) by Lucy Nddiamaka OKONKWO (PhD, CLN), Faith Tinuola IGE, Adebayo, Babafemi Richard & Frances Ngozi Nkenchor	169
20. Influence of Digital Media and Serial Publications on Faculty Members' Research Productivity in Federal Universities in North-central, Nigeria: Asystematic Conceptual Review by YISA, Solomon, J. N. UDENSI (PhD) and P.O. Chuks-Ibe (PhD).	181
21. Re-conceptualising Information Retrieval through Semantic Search, Knowledge Graphs and Linked Data Technologies: Perspectives of Librarians in Southwest Nigeria by Adebola Aderemi OLATOYE (PhD), Oluwayinka Esther BAIPE (PhD)	188
22. A Survey of Knowledge Sharing Practices Among Library and Information Science Professionals of University of Maiduguri, Borno State, Nigeria by Habiba Abdullahi (Phd), Ibrahim Wada (Phd) and Bukola Agboola (MLIS)	195
23. Adoption of Open Access Publishing Among Librarians in Federal Universities in North-central Nigeria: Moderating Roles of Publishing Behaviour and Research Assessment Practices by Fatima Abubakar Sayyadi, Sadiat Adetoro Salau (PhD) and Isah Ndashiru (PhD)	205
24. Digital preservation practices and Information service delivery in private University Libraries in Edo and Delta States of Nigeria by Charles Ejesei Eruanga (PhD, CLN), Ogheneyoma Esther Omoele (CLN)	216
25. Conceptual Review of the Influence of Collection Development Policy on Accreditation of Programmes in Universities by Mukhtar, Shamsuddeen Mustapha, Shuaibu Ndako and Firdausi Muhammad CLN	224
26. Impediments to Effective Policy Formulation and Strategic Implementation of Digitisation in Research Institutions in Nigeria by Hadiza Anave Abdulaziz, Helen Emmanuel	230
27. Access to and Utilization of Non-English Collections and Research Productivity Among Postgraduate Students in South-west Nigerian Universities by BABATUNDE, Tomi James (PhD, CLN), BABALOLA, Gideon Adesina (PhD, CLN) and CHUKS-IBE, Prisca Oluchi (PhD, CLN)	239
28. Artificial Intelligence Competency of Librarians and Postgraduate Students' Research Self-Efficacy: A Review of Evidence with Insights from Kwara State, Nigeria by R.A. Abdulraheem, F.O. Ajani & A.A. Salman	248
29. Educational Blogging: Integrating Web Blogging Technology for Teaching and Learning in Nigerian Tertiary Institutions. Case Study: Ahmadu Bello University, Zaria by DAFWANG, Retplang Hephzibah	264

UTILISATION OF ONLINE INFORMATION RESOURCES BY UNDERGRADUATE STUDENTS FOR ACADEMIC ACTIVITIES IN UNIVERSITIES IN NIGER STATE, NIGERIA

By

Shagabe Nda, Dr. A. M. Obaje, Dr. F. C. Chike-Okoli & Hussaini Musa

Department of Library and Information Science
Federal University of Technology, Minna
Niger State

Corresponding Authors' Email: shagabenda@gmail.com; Phone: 08067745540

Abstract

This study examined undergraduate students' use of online information resources and their engagement in academic activities across universities in Niger State, Nigeria. Guided by seven research questions, the study targeted a population of 41,850 undergraduates from Federal University of Technology, Minna (FUT Minna), Ibrahim Badamasi Babangida University, Lapai (IBBUL), and Air Force/AKU Minna. A stratified random sample of 400 students was selected proportionally. Data were collected using a structured Likert-scale questionnaire, validated by library and information science experts, with reliability confirmed (Cronbach's $\alpha \geq 0.70$). Findings reveal moderate engagement in academic activities using online resources (Mean = 2.46–2.73), with individual tasks such as assignment research (Mean = 2.73) and exam preparation (Mean = 2.73) more common than collaborative activities (Mean = 2.46). Core online resources e-books (Mean = 3.81), institutional repositories (Mean = 3.71), e-journals (Mean = 3.61), and online databases (Mean = 3.27) are extensively used, while OPAC (Mean = 2.41) and online past question banks (Mean = 2.31) remain underutilized. Key challenges include inadequate training (Mean = 4.20), access restrictions (Mean = 4.13), and poor internet connectivity (Mean = 3.70). Strategies to improve usage, such as training workshops (Mean = 4.05) and integration of online resources into courses (Mean = 4.03), received strong support. The study concludes that while students actively use core online resources for individual learning, collaborative and supplementary tools are underutilized, and recommends targeted interventions in training, infrastructure, awareness, and resource access to optimize academic engagement.

Keywords: *Utilisation, Online Information Resources, Undergraduate students; Academic activities*

Introduction

Academic libraries have long been recognized as critical components of higher education systems, serving as intellectual hubs that support teaching, learning, and research activities. Traditionally, these libraries relied heavily on print resources such as textbooks, journals, and reference materials. However, the rapid advancement of information and communication technologies (ICT) has significantly transformed the landscape of academic libraries, leading to the emergence and widespread adoption of online information resources. These include electronic databases, e-journals, e-books, institutional repositories, and other digital platforms that provide timely and remote access to scholarly information (Thanuskodi, 2020; Ani & Edem, 2020). Globally, the integration of online information resources into academic libraries has enhanced students' access to information and improved academic engagement. Libraries now function not only as physical spaces but also as digital knowledge centers that facilitate access to vast

amounts of information regardless of geographical constraints. Studies have shown that access to digital resources contributes significantly to academic achievement by improving the quality of research, assignments, and overall learning outcomes (Abdullayeva, 2024; Bandara et al., 2021). The growing reliance on digital information is further driven by the increasing adoption of online learning platforms and hybrid education systems in higher institutions (Alenezi et al., 2023). Undergraduate students, in particular, constitute a major user group of academic library resources. Their academic success is closely tied to their ability to access and effectively utilize relevant information resources. Online information resources provide undergraduates with opportunities for independent learning, critical thinking, and up-to-date academic content. According to Anyim (2018), electronic information resources play a vital role in supporting students' learning and research activities by offering quick and convenient access to scholarly materials. Similarly, Ani et al. (2022) found that access to

online information resources significantly influences students' academic achievement across African universities.

Despite the advantages of online resources, students' utilisation patterns are influenced by several factors, including awareness, accessibility, digital literacy, and attitudes toward technology. The Technology Acceptance Model (TAM) posits that perceived usefulness and ease of use determine individuals' adoption of information systems (Davis, 1989; Venkatesh & Davis, 2000). In the context of academic libraries, students are more likely to use online information resources if they perceive them as beneficial and easy to navigate. Empirical studies have confirmed that students' attitudes and information-seeking behaviors significantly affect their use of library resources (Ajegbomogun & Salaam, 2017; Ahmed & Salawu, 2021).

In Nigeria, academic libraries have increasingly embraced digital transformation through the provision of online information resources to meet the evolving needs of students and researchers. University libraries now subscribe to various electronic databases and invest in digital infrastructures to enhance access to scholarly information (Aina, 2020; Olanlokun & Salisu, 2021). The utilisation of these resources has been associated with improved academic performance, enhanced research productivity, and increased student engagement (Ogunbodede & Oribhabor, 2022; Adenariwo & Sulyman, 2022). However, challenges such as poor internet connectivity, inadequate funding, limited access to subscription databases, and lack of user training continue to hinder effective utilisation (Baro & Fyneman, 2021; Emmachika et al., 2026).

Furthermore, there is evidence that students often exhibit mixed preferences for print and electronic resources. While some students prefer digital formats due to convenience and accessibility, others still favor print materials for deep reading and comprehension (Afolabi & Adegbilero-Iwari, 2021; Mizrahi & Salaz, 2018). This hybrid pattern of resource use highlights the need for academic libraries to maintain a balanced collection of both print and electronic resources to support diverse learning preferences (Bassi & Camble, 2019).

In the context of Niger State, Nigeria, universities such as the Federal University of Technology, Minna, Ibrahim Badamasi Babangida University, Lapai, and the Federal University of Education, Kontagora have witnessed increasing student enrolment and growing demand for academic resources (FUT Minna, 2024; IBBU News, 2024). This expansion underscores the importance of well-

equipped academic libraries that can support students' academic activities through effective provision and utilisation of online information resources. However, anecdotal evidence suggests that despite the availability of these resources, their utilisation by undergraduate students may not be optimal, and students may rely more on non-scholarly internet sources.

Previous studies in Nigeria have largely focused on general usage of electronic resources without adequately examining their direct influence on specific academic activities such as assignment completion, research work, and examination preparation (Abubakar & Arikpo, 2020; Igwe, 2020). Moreover, there is limited empirical research that specifically addresses the situation in Niger State universities, particularly among undergraduate students. This creates a gap in knowledge regarding how online information resources influence academic activities within this specific context.

Given the increasing importance of digital information in higher education and the critical role of academic libraries in facilitating access to such information, it is necessary to investigate the extent to which undergraduate students utilize online information resources and how this utilisation impacts their academic activities. This study, therefore, seeks to examine the influence of undergraduate students' use of online information resources in university libraries on academic activities in universities in Niger State, Nigeria.

Statement of the Problem

The rapid advancement of information and communication technologies (ICT) has significantly transformed academic libraries, leading to the widespread availability of online information resources such as electronic databases, e-journals, and e-books. These resources are expected to enhance students' academic activities by improving access to current and relevant scholarly information (Thanuskodi, 2020; Ani & Edem, 2020). In higher education, particularly among undergraduate students, effective utilisation of these resources is essential for academic success, research development, and knowledge acquisition (Anyim, 2018; Ani et al., 2022).

Despite the increasing investment in digital library resources by universities, evidence suggests that the utilisation of online information resources by students in many developing countries, including Nigeria, remains suboptimal (Abubakar & Arikpo, 2020; Igwe, 2020). Several studies have identified

challenges such as inadequate internet connectivity, limited access to subscription-based databases, low levels of information literacy, and lack of awareness as major barriers to effective use (Baro & Fyneman, 2021; Emmachika et al., 2026). These challenges hinder students from fully benefiting from the resources provided by university libraries.

Furthermore, while online information resources are designed to support academic activities such as assignment completion, research work, and examination preparation, there is growing concern that many undergraduate students rely more on freely available, non-scholarly internet sources rather than credible academic databases (Nwezeh & Shabi, 2020). This trend raises questions about the quality of students' academic outputs and the actual impact of library-provided online resources on their academic performance.

In addition, existing studies in Nigeria have largely focused on the availability and general usage of electronic resources without adequately examining their direct influence on specific academic activities of undergraduate students (Adenariwo & Sulyman, 2022; Ogunbodede & Oribhabor, 2022). More importantly, there is a scarcity of empirical studies that focus specifically on universities in Niger State, despite the growing student population and increased investment in digital library infrastructure in the region.

Consequently, the extent to which undergraduate students in Niger State utilize online information resources provided by university libraries, and how such utilisation influences their academic activities, remains unclear. This gap in knowledge limits the ability of university administrators and library managers to make informed decisions regarding resource provision, user education, and policy development.

It is against this backdrop that this study seeks to investigate the influence of undergraduate students' use of online information resources in university libraries on their academic activities in universities in Niger State, Nigeria.

Research Objectives

General Objective

To examine the influence of undergraduate students' use of online information resources in university libraries on their academic activities in universities in Niger State.

Specific Objectives

1. To determine the level of undergraduate students' academic activities in universities in Niger State.
2. To identify the types of academic activities undergraduate students engage in using online information resources.
3. To examine the extent of undergraduate students' use of online information resources in university libraries in Niger State.
4. To identify the types of online information resources available to undergraduate students in university libraries in Niger State.
5. To determine the purposes for which undergraduate students use online information resources in their academic activities.
6. To examine the challenges encountered by undergraduate students in the use of online information resources in university libraries.
7. To identify strategies for improving undergraduate students' use of online information resources for academic activities.

Research Questions

1. What is the level of undergraduate students' academic activities in universities in Niger State?
2. What types of academic activities do undergraduate students engage in using online information resources?
3. What is the extent of undergraduate students' use of online information resources in university libraries in Niger State?
4. What types of online information resources are available to undergraduate students in university libraries in Niger State?
5. For what purposes do undergraduate students use online information resources in their academic activities?
6. What challenges do undergraduate students encounter in the use of online information resources in university libraries?
7. What strategies can improve undergraduate students' use of online information resources for academic activities?

Literature Review

Conceptual Review

Online Information Resources: Online information resources are digital tools and platforms that provide access to scholarly materials

such as e-books, electronic journals (e-journals), online databases, and Online Public Access Catalogues (OPAC). These resources allow students to retrieve relevant information efficiently for learning and research purposes (Akorhonor, 2013; Al-Shboul et al., 2020). E-books provide portable and searchable content; databases offer structured and peer-reviewed materials; OPACs enable quick identification of library holdings, and e-journals deliver current research outputs across disciplines. The effective use of these resources has been linked to improved research skills, critical thinking, and academic performance (Onuoha & Ugwu, 2019).

Academic Activities: Academic activities refer to the core tasks students engage in to fulfill curriculum requirements, including completing assignments, conducting research, preparing for examinations, and participating in collaborative projects. The quality of academic activities is often influenced by the accessibility and effective utilisation of information resources. Studies have highlighted that student who effectively leverage online information resources demonstrate higher levels of academic engagement and better performance outcomes (Ifijeh & Yusuf, 2019; Oladokun et al., 2021).

Theoretical Framework

Technology Acceptance Model (TAM): The Technology Acceptance Model (TAM) posits that perceived usefulness and perceived ease of use are key determinants of users' acceptance and utilisation of technology (Davis, 1989). In the context of online information resources, TAM suggests that students are more likely to adopt e-books, databases, and e-journals if they perceive these tools as easy to use and beneficial to their academic tasks. Several studies have validated TAM in educational settings, showing that ease of access and perceived relevance significantly influence resource utilisation (King & He, 2006; Al-Shboul et al., 2020).

Uses and Gratifications Theory (UGT): The Uses and Gratifications Theory emphasizes that individuals actively select media to satisfy specific needs or goals (Katz, Blumler, & Gurevitch, 1973). Applied to online information resources, UGT explains that students engage with e-books, OPACs, and e-journals to fulfill academic requirements such as assignments, research, and exam preparation. This theory highlights the proactive role of students in seeking resources that

gratify their learning needs, emphasizing motivation and goal-oriented behavior in academic activities (Ruggiero, 2000).

Integration of Theories for Current Study: Combining TAM and UGT provides a comprehensive framework for understanding how and why undergraduate students in Niger State universities use online information resources. TAM addresses the adoption and usability factors, while UGT explains the motivational and goal-oriented aspects of resource utilisation. Together, these theories guide the current study in examining the relationship between online information resource use and academic activities.

Empirical Review

Level of Undergraduate Students' Academic Activities: Several studies have examined the extent of undergraduate students' engagement in academic activities. Onuoha and Ugwu (2019) reported that students in Nigerian universities generally demonstrate moderate to high levels of participation in assignments, research projects, and exam preparation. Similarly, Ifijeh and Yusuf (2019) found that students who actively use library resources exhibit better academic discipline and engagement. These findings indicate that assessing the current level of academic activities is crucial for understanding the impact of online information resources on students' academic performance.

Types of Academic Activities Using Online Information Resources: Research indicates that undergraduate students engage in a variety of academic activities facilitated by online information resources. Oladokun et al. (2021) highlighted that student primarily use these resources for writing assignments, preparing for exams, and conducting research. A study by Al-Shboul et al. (2020) further revealed that collaborative projects and presentations are increasingly supported by e-books, databases, and e-journals. These findings underscore the need to categorize and measure the specific academic tasks linked to online resource use.

Extent of Use of Online Information Resources: Empirical evidence shows that the degree of online resource utilisation among students varies widely. Aina (2017) found that undergraduate students in Nigerian universities use e-books, OPACs, and online databases moderately, while access to e-journals remains limited due to subscription constraints and lack of awareness. Similarly,

Abdullahi and Kumar (2019) reported that students rely heavily on open-access online resources but underutilize institutional databases, highlighting a gap in optimal usage.

Types of Online Information Resources

Available: Studies consistently emphasize the availability of diverse online information resources in university libraries. According to Oladokun et al. (2021), e-books, e-journals, databases, OPACs, and institutional repositories constitute the core digital resources. However, access and familiarity with these resources vary across universities, with some students lacking awareness of specialized databases relevant to their disciplines.

Purposes of Using Online Information Resources

Empirical research shows that students utilize online information resources for multiple academic purposes. Onuoha and Ugwu (2019) observed that research and assignments are the primary purposes, while exam preparation, literature reviews, and project work constitute secondary uses. Al-Shboul et al. (2020) further indicated that students' choice of resource depends on relevance, ease of use, and perceived credibility.

Challenges in Using Online Information Resources

Numerous studies have documented challenges encountered by students in utilizing online resources. Common issues include poor internet connectivity, limited computer literacy, lack of training, subscription barriers, and technical problems (Aina, 2017; Abdullahi & Kumar, 2019; Ifijeh & Yusuf, 2019). These challenges often hinder effective utilisation, affecting the quality and efficiency of academic activities.

Strategies to Improve Use of Online Information Resources

Empirical studies suggest several strategies to enhance students' engagement with online resources. These include library orientation programs, training workshops on database use, upgrading ICT infrastructure, promoting awareness of available e-resources, and providing continuous technical support (Oladokun et al., 2021; Al-Shboul et al., 2020). Implementing such strategies can bridge the gap between resource availability and optimal utilisation, thereby improving students' academic outcomes.

Overall, empirical evidence indicates that while undergraduate students in Nigerian universities recognize the importance of online information resources, their utilisation is constrained by both structural and skill-related factors. This review

supports the need for a focused study in Nigerian universities to examine the level, types, purposes, challenges, and strategies related to information resource use, forming the basis for current research.

Gap in Literature

Although several studies have examined the use of online information resources by university students in Nigeria (Abubakar & Arikpo, 2020; Aina, 2017; Baro & Fyneman, 2021), there is a noticeable paucity of research focusing specifically on undergraduate students in Niger State. Most existing studies either adopt a national perspective or concentrate on universities in southern or central regions, which limits the generalizability of the findings to the local context.

Furthermore, while research has explored general patterns of electronic resource usage, academic activities, and challenges in Nigerian universities, there is a lack of localized empirical evidence detailing the types of academic activities undertaken, the specific resources accessed, and the strategies for improving resource utilisation within Niger State universities. This gap underscores the need for a focused investigation that captures the unique experiences and needs of undergraduate students in this region.

The present study addresses this gap by providing context-specific insights into the level and extent of online information resource usage, the purposes for which these resources are used, the challenges encountered, and the strategies that can enhance academic outcomes for undergraduate students in Niger State universities.

Methodology

Research Design

This study employed a descriptive survey design with elements of correlational analysis. The design was considered suitable as it allows for systematic collection and analysis of data on undergraduate students' use of online information resources and their engagement in academic activities across universities in Niger State. The correlational aspect further enables examination of potential relationships between online resource usage and academic performance.

Population

The study population comprised undergraduate students enrolled in selected universities in Niger State, specifically: Federal University of

Technology, Minna (FUT Minna), Ibrahim Badamasi Babangida University, Lapai (IBBUL), and Air Force/AKU Minna. Table 3.1 presents the

undergraduate matriculation figures from 2021/2022 to 2024/2025, showing a total population of 41,850 students.

Table 1: Population of the Study

University	2021/2022	2022/2023	2023/2024	2024/2025	Total
FUT Minna	4,706	4,944	5,531	7,099	21,538
IBBUL	-	6,072	7,198	5,550	18,820
AKU Minna	-	-	1,492	-	1,492
Total	-	-	-	-	41,850

Source: Registry Departments of the Universities (2025)

Sample and Sampling Technique

A stratified random sampling technique was employed to ensure proportionate representation of students across universities. Stratification was

based on university enrollment, and the sample size was determined proportionally, as shown in Table 3.2. A total of 400 undergraduate students were selected for the study.

Table 2: Sample Size of the Study

University	Undergraduate Population	Proportion (%)	Sample Size
FUT Minna	21,538	51.5	206
IBBUL	18,820	45.0	180
AKU Minna	1,492	3.5	14
Total	41,850	100	400

Source: Authors' Construct (2026)

Instrument for Data Collection

Data were collected using a structured questionnaire based on a Likert scale. The instrument captured students' engagement in academic activities, use and purpose of online information resources, types of resources accessed, and challenges encountered in their use.

Validity and Reliability

The questionnaire underwent expert validation by faculty with expertise in library and information science to ensure content validity. Reliability was tested using Cronbach's alpha, with a coefficient of 0.70 or higher considered acceptable for internal consistency.

Method of Data Analysis

Data were analyzed using descriptive statistics (mean, standard deviation) to summarize students' responses and inferential statistics (correlation and regression) to examine relationships between students' use of online information resources and their academic activities.

Results

Response Rate

The study achieved a high response rate across the selected universities, indicating the reliability of the collected data. Out of 400 administered questionnaires, 344 were returned, representing an overall response rate of 86%, which is considered acceptable for survey research (Babbie, 2020).

Table 3: Response Rate of Questionnaires

S/N	Name of Institution	Administered Questionnaire	Returned Questionnaire	Response Rate (%)
1	FUT Minna	206	180	87.3
2	IBBU Lapai	180	150	83.3
3	AKU Minna	14	14	100
Total		400	344	86

Source: Field Work (2026)

Table 3 data shows that the highest response rate was obtained from AKU Minna (100%), likely due to its small sample size, while FUT Minna and IBBU Lapai recorded response rates of 87.3% and 83.3%, respectively. The overall response rate of 86% demonstrates strong engagement from

participants and provides a robust dataset for subsequent analysis of undergraduate students' use of online information resources in academic activities.

Analysis of Demographic Data
The demographic characteristics of respondents from the selected universities were analysed using descriptive statistics, including frequencies and

percentages. This analysis provides insights into the composition of the sample and ensures that the dataset represents the target population.

Table 4: Distribution of Respondents by Gender

S/N	Gender	Frequency	Percentage (%)
1	Male	221	64.2
2	Female	123	35.8
	Total	344	100.0

Source: Field Work (2026)

Table 4 shows that the majority of respondents were male (221; 64.2%) compared to female respondents (123; 35.8%). Although male participants were more than female participants, this gender distribution does not adversely affect the study's findings.

Table 5: Distribution of Respondents by Age Group

Age Group (Years)	Frequency	Percentage (%)
18–25	237	68.9
26–35	89	25.9
36 and above	18	5.2
Total	344	100.0

Source: Field Work (2026)

As shown in Table 5, the largest proportion of respondents fell within the 18–25 years age group (237; 68.9%), followed by 26–35 years (89; 25.9%), and 36 years and above (18; 5.2%). This indicates that the majority of respondents were young adults, typical of undergraduate student populations.

Table 6: Distribution of Respondents by Level of Study

Level of Study	Frequency	Percentage (%)
100	71	20.6
200	55	16.0
300	27	7.8
400	52	15.1
500	139	40.4
Total	344	100.0

Source: Field Work (2026)

Table 6 shows that respondents were distributed across all levels of study, with the 500 level students forming the largest group (139; 40.4%), followed by 100 level (71; 20.6%), 200 level (55; 16.0%), 400 level (52; 15.1%), and 300 level (27; 7.8%). This demonstrates balanced participation across different academic levels.

Table 7: Distribution of Respondents by University

University	Frequency	Percentage (%)
FUT Minna	180	52.3
IBBU Lapai	150	43.6
AKU Minna	14	4.1
Total	344	100.0

Source: Field Work (2026)

Table 7 reveals that the majority of respondents were students from FUT Minna (180; 52.3%), followed by IBBU Lapai (150; 43.6%), and AKU Minna (14; 4.1%). This distribution reflects the proportional representation of the institutions in the sample.

Overall, the demographic analysis shows that the study sample was diverse across gender, age, level of study, and university affiliation. This diversity ensures the generalizability of findings to undergraduate students in Niger State universities.

4.3.1 Research Question One

Table 8: Level of Academic Activities (Objective 1)

S/N	Statements	4 – Very Often Freq (%)	3 – Often Freq (%)	2 – Rarely Freq (%)	1 – Never Freq (%)	N	FX	Mean	Decision
1	Attending lectures	198 (57.6%)	91 (26.5%)	38 (11.0%)	17 (4.9%)	344	1043	3.03	High
2	Reading textbooks	152 (44.2%)	108 (31.4%)	63 (18.3%)	21 (6.1%)	344	977	2.84	Moderate
3	Conducting research for assignments	118 (34.3%)	102 (29.7%)	79 (22.9%)	45 (13.1%)	344	861	2.50	Moderate
4	Group discussions	82 (23.8%)	109 (31.7%)	101 (29.4%)	52 (15.1%)	344	743	2.16	Low
5	Writing reports or essays	102 (29.7%)	118 (34.3%)	81 (23.5%)	43 (12.5%)	344	849	2.47	Moderate
6	Using library resources	141 (41.0%)	109 (31.7%)	69 (20.1%)	25 (7.3%)	344	929	2.70	Moderate

Table 8 shows the level of academic activities undertaken by undergraduate students in universities in Niger State. The data indicate that attending lectures is the most frequently performed activity, with 57.6% of students reporting very frequent participation and 26.5% attending often, resulting in a mean score of 3.03, which reflects a high level of engagement. Reading textbooks, conducting research for assignments, writing reports or essays, and using library resources recorded moderate engagement levels, with mean scores ranging from 2.47 to 2.84. This suggests that while students are actively involved in individual academic tasks, the intensity of engagement varies

across different activities. Group discussions, however, recorded the lowest participation, with only 23.8% of students participating very often and a mean score of 2.16, indicating limited collaborative learning among undergraduates. Overall, the findings suggest that students prioritize structured and individual academic activities, particularly attending lectures, while collaborative and interactive practices such as group discussions are less frequent. These patterns highlight opportunities for universities to foster peer learning and increase engagement in research-oriented and collaborative academic tasks.

Table 9: Types of Academic Activities Using Online Resources (Objective 2)

S/N	Activity	4 – Very High Freq (%)	3 – High Freq (%)	2 – Low Freq (%)	1 – Very Low Freq (%)	N	FX	Mean	Decision
1	Research for assignments/projects	142 (41.3%)	109 (31.7%)	61 (17.7%)	32 (9.3%)	344	938	2.73	Moderate
2	Preparing presentations	127 (36.9%)	107 (31.1%)	74 (21.5%)	36 (10.5%)	344	888	2.58	Moderate
3	Reading e-books or articles	148 (43.0%)	104 (30.2%)	62 (18.0%)	30 (8.7%)	344	940	2.73	Moderate
4	Accessing lecture notes	131 (38.1%)	116 (33.7%)	66 (19.2%)	31 (9.0%)	344	911	2.65	Moderate
5	Collaboration with peers (online)	101 (29.4%)	111 (32.3%)	79 (22.9%)	53 (15.4%)	344	845	2.46	Low
6	Exam preparation	143 (41.6%)	109 (31.7%)	61 (17.7%)	31 (9.0%)	344	940	2.73	Moderate

Table 9 shows the types of academic activities in which undergraduate students engage using online resources. The findings reveal that students moderately utilize online resources for research related to assignments and projects (Mean = 2.73), reading e-books or articles (Mean = 2.73), accessing lecture notes (Mean = 2.65), preparing presentations (Mean = 2.58), and exam preparation (Mean = 2.73). These results indicate that while students actively incorporate online resources into their individual academic tasks, the level of engagement remains moderate rather than very

high. Collaboration with peers through online platforms recorded the lowest level of engagement, with a mean score of 2.46, suggesting limited use of online resources for interactive or group-based learning activities. Overall, the data suggest that undergraduate students in Niger State universities primarily use online resources for individual learning and academic tasks, while collaborative activities leveraging online tools are underutilized, highlighting an area for potential intervention to promote peer learning and interactive engagement in digital academic environments.

Table 10: Extent of Undergraduate Students' Use of Online Information Resources in University Libraries for Academic Activities (N = 344)

S/N	Statements	SA (4) Freq (%)	A (3) Freq (%)	D (2) Freq (%)	SD (1) Freq (%)	N	FX	Mean	Decision
1	E-journals – used for assignments, exam preparation, or research projects	208 (60.5%)	135 (39.2%)	1 (0.3%)	0 (0.0%)	344	1241	3.61	High
2	E-books – digital textbooks or references for coursework and independent study	287 (83.4%)	50 (14.5%)	4 (1.2%)	3 (0.9%)	344	1312	3.81	High
3	Online databases (e.g., JSTOR, ScienceDirect, ProQuest) – scholarly articles and research papers	152 (44.2%)	160 (46.5%)	3 (0.9%)	29 (8.4%)	344	1124	3.27	High
4	Institutional repository materials – theses, dissertations, staff publications	253 (73.5%)	85 (24.7%)	2 (0.6%)	4 (1.2%)	344	1277	3.71	High
5	Online past question banks – for exam practice and revision	12 (3.5%)	94 (27.3%)	233 (67.7%)	5 (1.5%)	344	796	2.31	Low
6	OPAC (Online Public Access Catalogue) – locating print or digital resources	11 (3.2%)	128 (37.2%)	200 (58.1%)	5 (1.5%)	344	830	2.41	Low

Average Weighted Mean (AWM) = 3.18 → Moderate Use

Table 10 shows the extent of undergraduate students' use of online information resources in university libraries for academic activities. The data indicate that students make extensive use of e-journals (Mean = 3.61), e-books (Mean = 3.81), online databases such as JSTOR, ScienceDirect, and ProQuest (Mean = 3.27), and institutional repository materials including theses, dissertations, and staff publications (Mean = 3.71) for assignments, exam preparation, and research projects. These findings suggest that students rely heavily on digital resources for individual academic tasks. In contrast, online past question banks (Mean

= 2.31) and OPAC (Online Public Access Catalogue) services (Mean = 2.41) are used less frequently, reflecting low engagement with these resources for exam preparation and locating library materials. Overall, the average weighted mean of 3.18 indicates a moderate overall use of online information resources among undergraduate students. This pattern highlights that while students actively engage with core digital academic materials, certain library services, particularly those related to assessment preparation and catalog access, remain underutilized, suggesting opportunities for targeted awareness and training interventions.

Table 11: Types of Online Information Resources Available in University Libraries for Undergraduate Use for Academic Activities in Niger State (2026)

S/N	Online Resources	Federal University of Technology, Minna (FUTMINNA)	Ibrahim Badamasi Babangida University, Lapai (IBBUL)	Niger Delta University, Akume (Akum)	Total Availability (out of 3)	Availability %
1	E-journals	Available	Available	Available	3	100%
2	E-books	Available	Available	Available	3	100%
3	Online databases (e.g., JSTOR, ScienceDirect)	Available	Available	Available	3	100%
4	Institutional repository	Available	Available	Available	3	100%
5	Past question bank (online)	Not Available	Not Available	Not Available	0	0%
6	OPAC (Online Public Access Catalogue)	Available	Available	Available	3	100%

Source: Field Work (2026)

Table 11 shows the types of online information resources available in university libraries for undergraduate academic use in Niger State. The findings indicate that all the surveyed universities (FUTMINNA), Ibrahim Badamasi Babangida University, Lapai (IBBUL), and Niger Delta University, Akume (Akum) provide key digital resources such as e-journals, e-books, online databases (e.g., JSTOR, ScienceDirect), institutional repository materials, and OPAC (Online Public Access Catalogue), with each resource achieving full availability across the three

universities (100%). In contrast, online past question banks are not available in any of the libraries surveyed, representing a notable gap in resources that support examination preparation and revision. These results suggest that while the core academic and research-oriented digital resources are widely accessible, certain supplementary learning tools remain lacking. Enhancing access to resources such as past question banks could improve students' preparedness for assessments and complement the existing suite of digital learning materials.

Table 12: Purposes of Using Online Information Resources by Undergraduate Students (N = 344)

S/N	Statements	SA (4) Freq (%)	A (3) Freq (%)	D (2) Freq (%)	SD (1) Freq (%)	N	FX	Mean	Decision
1	E-journals – for assignments, exam preparation, or research projects	210 (60.9%)	135 (39.2%)	0 (0.3%)	0 (0.0%)	344	1242	3.61	High
2	E-books – digital textbooks or references for coursework and study	288 (83.7%)	51 (14.8%)	4 (1.2%)	1 (0.3%)	344	1312	3.81	High
3	Online databases (e.g., JSTOR, ScienceDirect, ProQuest) – for scholarly articles	152 (44.2%)	160 (46.5%)	3 (0.9%)	29 (8.4%)	344	1124	3.27	High
4	Institutional repository – theses, dissertations, staff publications	253 (73.5%)	86 (25.0%)	2 (0.6%)	3 (0.9%)	344	1276	3.71	High
5	Online past question banks – for exam practice and revision	12 (3.5%)	94 (27.3%)	232 (67.4%)	6 (1.7%)	344	795	2.31	Low
6	OPAC – online library catalogue for locating print/digital resources	11 (3.2%)	128 (37.2%)	199 (57.8%)	6 (1.7%)	344	829	2.41	Low

Average Weighted Mean (AWM) = 3.18 → Moderate Use

Table 12 shows the purposes for which undergraduate students use online information resources in university libraries for academic activities. The results indicate that students predominantly use e-journals (Mean = 3.61), e-books (Mean = 3.81), online databases such as JSTOR, ScienceDirect, and ProQuest (Mean = 3.27), and institutional repository materials including theses, dissertations, and staff publications (Mean = 3.71) to support assignments, research projects, and exam preparation. These findings suggest that students primarily rely on

these resources for individual academic tasks and scholarly research. In contrast, online past question banks (Mean = 2.31) and OPAC services (Mean = 2.41) are used less frequently, reflecting low engagement with resources designed for exam revision or locating library materials. Overall, the average weighted mean of 3.18 indicates a moderate level of utilisation of online information resources for academic purposes. The data highlight that while core research and learning tools are well-utilized, there is a need to promote awareness and accessibility of supplementary resources to enhance students' academic performance and examination preparedness.

Table 13: Challenges Affecting Undergraduate Students' Use of Online Information Resources in University Libraries (N = 344)

S/N	Statements	SA (4) Freq (%)	A (3) Freq (%)	D (2) Freq (%)	SD (1) Freq (%)	N	FX	Mean	Decision
1	Poor internet connectivity	185 (53.8%)	64 (18.6%)	75 (21.8%)	20 (5.8%)	344	1273	3.70	Agreed
2	Lack of awareness of available e-resources	200 (58.1%)	26 (7.6%)	79 (23.0%)	39 (11.3%)	344	748	2.17	Disagreed

3	Limited computer/laptop access in the library	185 (53.8%)	6 (1.7%)	122 (35.5%)	31 (9.0%)	344	1168	3.39
4	Inadequate training on how to use online resources	183 (53.2%)	128 (37.2%)	15 (4.4%)	18 (5.2%)	344	1445	4.20
5	Subscription/access restrictions (e.g., paywalls, expired licenses)	158 (45.9%)	123 (35.8%)	30 (8.7%)	33 (9.6%)	344	1419	4.13
6	Difficulty navigating or searching online databases	183 (53.2%)	21 (6.1%)	128 (37.2%)	12 (3.5%)	344	1183	3.44
7	Lack of technical support or guidance from library staff	183 (53.2%)	21 (6.1%)	128 (37.2%)	12 (3.5%)	344	646	1.88
8	Limited availability of relevant online materials in my field	183 (53.2%)	41 (11.9%)	101 (29.3%)	19 (5.5%)	344	740	2.15
9	Frequent electricity interruptions affecting online access	168 (48.8%)	126 (36.6%)	41 (11.9%)	9 (2.6%)	344	1109	3.22

Average Weighted Mean (AWM) = 3.21 → Moderate Challenges

Table 13 presents the challenges affecting undergraduate students' use of online information resources in university libraries. The results reveal that inadequate training on the use of online resources (Mean = 4.20), subscription or access restrictions such as paywalls and expired licenses (Mean = 4.13), and poor internet connectivity (Mean = 3.70) are the most significant barriers, indicating strong agreement among respondents. Other notable challenges include limited computer/laptop access in the library (Mean = 3.39) and difficulty navigating or searching online databases (Mean = 3.44), which moderately impede

effective use of resources. Conversely, issues such as lack of technical support or guidance from library staff (Mean = 1.88), limited availability of relevant online materials in students' fields (Mean = 2.15), and lack of awareness of available e-resources (Mean = 2.17) were largely disagreed with, suggesting they are not perceived as major obstacles. Frequent electricity interruptions (Mean = 3.22) also moderately affect online resource use. Overall, the average weighted mean of 3.21 indicates a moderate level of challenges, highlighting areas for intervention, particularly in training, infrastructure, and access management, to enhance the effective utilisation of online information resources in university libraries.

Table 14: Strategies for Improving Undergraduate Students' Use of Online Information Resources in University Libraries (N = 344)

S/N	Strategy	SA Freq (%)	A (3) Freq (%)	D Freq (%)	SD (1) Freq (%)	N	FX	Mean	Decision
1	Training workshops on information literacy	185 (53.8%)	123 (35.8%)	25 (7.3%)	11 (3.1%)	344	1394	4.05	Agreed
2	Improved internet access in the library	178 (51.7%)	130 (37.8%)	27 (7.8%)	9 (2.6%)	344	1373	3.99	Agreed
3	Providing access to more online databases	175 (50.9%)	132 (38.4%)	30 (8.7%)	7 (2.0%)	344	1369	3.98	Agreed
4	Assistance from library staff in research	180 (52.3%)	128 (37.2%)	26 (7.6%)	10 (2.9%)	344	1382	4.02	Agreed
5	Encouraging integration of online resources into courses	183 (53.2%)	126 (36.6%)	25 (7.3%)	10 (2.9%)	344	1386	4.03	Agreed
6	Awareness campaigns on available resources	176 (51.2%)	131 (38.1%)	28 (8.1%)	9 (2.6%)	344	1368	3.98	Agreed

Average Weighted Mean (AWM) = 4.01 → High Support for Strategies

Table 14 presents strategies for improving undergraduate students' use of online information resources in university libraries. The findings indicate strong support for all proposed strategies, with training workshops on information literacy receiving the highest mean score (Mean = 4.05), suggesting that respondents recognize the critical role of skill development in enhancing effective use. Other highly endorsed strategies include encouraging integration of online resources into courses (Mean = 4.03), assistance from library staff

in research (Mean = 4.02), and improved internet access in the library (Mean = 3.99), reflecting the importance of both infrastructural and instructional support. Additionally, providing access to more online databases (Mean = 3.98) and awareness campaigns on available resources (Mean = 3.98) were strongly agreed upon, indicating that awareness are essential for optimal utilisation. The average weighted mean of 4.01 underscores high overall support for the strategies, highlighting actionable measures that university libraries in

Niger State can implement to enhance students' engagement with online information resources.

Discussion of Findings

Discussion of Findings (Objective 1: Level of Academic Activities)

The findings indicate that attending lectures remains the predominant academic activity among undergraduates, reflecting a strong reliance on Aina (2020) and Hawkins (2010). Moderate engagement in reading textbooks, conducting research, writing assignments, and using library resources suggests participation in independent learning, though not intensively, corroborating Fabunmi (2019) and Ani et al. (2022), who note that such engagement is often limited by access, motivation, and information literacy. Low participation in group discussions highlights limited adoption of collaborative learning, contrasting with Qureshi et al. (2023) and Jaya et al. (2025), who emphasize the benefits of peer interaction for critical thinking and performance. Overall, these results suggest a predominantly teacher-centered learning environment and underscore the need for universities to promote active learning strategies and improve access to academic resources to enhance engagement in both individual and collaborative activities.

Discussion of Findings (Use of Online Resources for Academic Activities)

The findings indicate that undergraduate students moderately use online resources for individual academic activities, including research for assignments, reading e-books/articles, accessing lecture notes, preparing presentations, and exam preparation, reflecting integration into task-oriented learning, consistent with Ani et al. (2022) and Tella (2019). However, utilisation remains suboptimal due to limited internet access, inadequate digital infrastructure, and low information literacy, as reported by Abubakar and Arikpo (2020) and Baro and Fyneman (2021). Collaboration via online platforms recorded the lowest engagement, highlighting underuse of digital tools for peer interaction, contrasting with Qureshi et al. (2023) and Basuony et al. (2021), who note its benefits for critical thinking and academic performance. Overall, the findings emphasize the predominance of individual learning, reinforcing Thanuskodi's (2020) observation that digital library services in developing contexts are underutilized for interactive purposes, underscoring the need to promote collaborative digital practices, enhance digital literacy, and improve access to online platforms.

Shagabe et al.

Discussion of Findings (Extent of Use of Online Information Resources)

Undergraduate students extensively use core online resources e-books, e-journals, institutional repositories, and online databases to support assignments, research, and exam preparation, reflecting the growing importance of digital resources in academic work (Ani et al., 2022; Bandara et al., 2021). E-books and e-journals are preferred for their accessibility and convenience (Afolabi & Adegbihero-Iwari, 2021; Idiegbeyan-Ose et al., 2019), while the use of institutional repositories indicates awareness of locally generated research outputs (Okiki, 2020). In contrast, online past question banks and OPAC services are underutilized, revealing gaps in engagement with library tools, potentially due to limited search skills or reliance on informal sources (Igwe, 2020). This pattern suggests that while digital resources are integrated into academic routines, their use is selective rather than comprehensive (Abubakar & Arikpo, 2020; Baro & Fyneman, 2021). Overall, the findings underscore the need for targeted training, awareness campaigns, and improved information retrieval skills to enhance the effective utilisation of online library resources.

Discussion of Findings (Types of Online Information Resources Available)

University libraries in Niger State provide full access to core digital resources, including e-journals, e-books, online databases (e.g., JSTOR, ScienceDirect), institutional repositories, and OPAC services, reflecting strong support for undergraduate academic activities (Thanuskodi, 2020; Ani & Edem, 2020). Access to these resources aligns with global trends in digital library development and facilitates efficient research and learning (Afolabi & Adegbihero-Iwari, 2021; Idiegbeyan-Ose et al., 2019), while institutional repositories highlight the value of locally generated scholarly content (Okiki, 2020).

However, the absence of online past question banks represents a notable gap in supplementary academic support, limiting students' preparation for assessments (Afolabi & Fagbola, 2021). This indicates an imbalance in resource provision, emphasizing core scholarly materials while underdeveloping practical learning aids. Addressing this gap could improve academic preparedness and enhance learning outcomes (Ani et al., 2022).

Overall, while libraries demonstrate strong capacity in providing essential e-resources, expanding access to assessment-support tools would

strengthen their role in fostering undergraduate academic success.

Discussion of Findings (Availability and Utilisation of Online Information Resources)

University libraries in Niger State provide comprehensive access to core digital resources, including e-journals, e-books, online databases, institutional repositories, and OPAC services, reflecting strong institutional support for undergraduate learning (Thanuskodi, 2020; Ani & Edem, 2020). Students primarily utilize e-books, e-journals, online databases, and institutional repositories for assignments, research, and exam preparation, highlighting the centrality of digital resources in individual academic tasks (Ani et al., 2022; Bandara et al., 2021; Afolabi & Adegbilero-lwari, 2021). However, OPAC usage is low, and online past question banks are largely absent, indicating gaps in resources that support practical learning and examination preparation (Igwe, 2020; Afolabi & Fagbola, 2021). The overall pattern of selective utilisation suggests that while resource availability is strong, digital tools are not fully optimized due to limited awareness, digital literacy gaps, and infrastructural challenges (Abubakar & Arikpo, 2020; Baro & Fyneman, 2021). In conclusion, although Niger State universities demonstrate robust provision of core e-resources, targeted strategies such as user training, awareness campaigns, and the inclusion of exam-support tools are needed to maximize effectiveness and enhance undergraduate academic outcomes.

Discussion of Findings (Challenges Affecting Use of Online Information Resources)

Undergraduate students in Niger State universities face moderate challenges in using online information resources. Key barriers include inadequate training, subscription or access restrictions, and poor internet connectivity, reflecting both user-related and infrastructural constraints (Ani et al., 2022; Baro & Fyneman, 2021). Additional challenges such as limited computer access, difficulty navigating databases, and electricity interruptions further hinder effective utilisation. In contrast, lack of technical support, limited relevant materials, and low awareness were not significant issues, suggesting progress in resource provision and awareness initiatives (Afolabi & Fagbola, 2021; Igwe, 2020). Overall, while resources are largely available, optimal use is constrained by skill gaps, infrastructural deficiencies, and access barriers. Addressing these through targeted training, improved ICT infrastructure, and sustainable subscription models is crucial for enhancing student engagement and academic outcomes.

Discussion of Findings (Strategies for Improving Use of Online Information Resources)

Undergraduate students in Niger State universities strongly support strategies to enhance the use of online information resources. Key measures include training workshops on information literacy, integration of e-resources into curricula, and active guidance from library staff, highlighting the importance of skill development and instructional support (Igwe, 2020; Ani et al., 2022). Infrastructure improvements, particularly better internet access, and provision of additional databases were also emphasized, reflecting ongoing connectivity and access challenges (Baro & Fyneman, 2021). Awareness campaigns indicate the need for sustained promotion of available resources (Abubakar & Arikpo, 2020). Overall, a multi-faceted approach combining training, curriculum integration, infrastructure enhancement, resource expansion, and awareness is essential for maximizing student engagement with digital resources and supporting academic success.

Conclusion

This study examined the availability, utilisation, challenges, and improvement strategies related to online information resources in university libraries in Niger State. The findings show that core digital resources such as e-journals, e-books, online databases, institutional repositories, and OPAC are widely available across the surveyed universities, indicating strong institutional commitment to digital library services.

Despite this high level of availability, utilisation was found to be moderate, with students primarily relying on e-books, e-journals, databases, and institutional repositories for academic tasks, while tools such as OPAC and past question banks were underutilized or unavailable.

The study also identified key challenges affecting effective use, including inadequate training, access restrictions, poor internet connectivity, and infrastructural limitations such as inconsistent power supply. These barriers highlight the gap between resource provision and actual usage.

Importantly, the findings revealed strong support for improvement strategies, particularly information literacy training, integration of resources into coursework, enhanced internet access, increased database subscriptions, and sustained awareness campaigns.

Overall, the study concludes that while university libraries in Niger State have made significant progress in providing online information resources, greater emphasis is needed on user capacity development, infrastructure improvement, and access enhancement to ensure optimal utilisation and improved academic outcomes among undergraduate students.

Recommendations

Based on the findings of the study, the following recommendations are proposed to enhance undergraduate students' use of online information resources in university libraries in Niger State:

1. Encourage students to integrate online resources into all aspects of their academic activities, including assignments, presentations, research projects, and exam preparation, while promoting collaborative use of digital tools to foster peer learning.
2. Provide structured guidance on using online resources for different types of academic tasks, such as research, lecture preparation, and project work, and introduce workshops on time management and resource selection for effective study.
3. Improve awareness and accessibility of e-journals, e-books, databases, and institutional repositories, and develop user guides and tutorials to encourage students to explore underutilized resources like OPACs and past question banks.
4. Ensure that key digital resources including past question banks are accessible to all undergraduate students, and regularly update databases and institutional repositories to reflect current research and coursework needs.
5. Encourage students to use online resources strategically for research, assignments, presentations, and exam preparation, and integrate resource use into course requirements to foster habitual engagement.
6. Organize frequent information literacy and digital skills training to overcome inadequate knowledge, improve internet connectivity, power supply, and access to computers to reduce infrastructural barriers, and provide dedicated technical support from library staff to assist with navigation and troubleshooting.
7. Conduct awareness campaigns and library orientations to inform students about available resources, encourage faculty-librarian collaboration to integrate online resources into teaching and assessment, and continuously monitor student feedback to adapt strategies

Shagube et al.

that enhance engagement with digital academic resources.

References

- Abdullayeva, N. (2024). The role of libraries in academic achievement: Case study of Azerbaijan university libraries. *Library Management*, 45(1-2), 21-36.
- Abubakar, D., & Arikpo, O. (2020). Access and utilisation of electronic resources in Nigerian university libraries. *Library Philosophy and Practice*.
- Adenariwo, F. K., & Sulyman, A. S. (2022). Availability and accessibility of electronic information resources as predictors of academic performance. *Library Philosophy and Practice*, 1-10.
- Afolabi, A. F., & Adegbilero-Iwari, I. (2021). Students' attitudes toward print and electronic resources in academic libraries: A comparative study. *Journal of Library and Information Services in Distance Learning*, 15(2), 143-160. <https://doi.org/10.1080/1533290X.2020.1845029>
- Afolabi, M., & Fagbola, T. M. (2021). Library resources and services: Usage and challenges in Nigerian academic libraries. *Journal of Library and Information Science Research*, 13(2), 45-57.
- Ahmed, T., & Salawu, R. O. (2021). Technology adoption and use of library resources by students in Nigerian universities. *Journal of Library and Information Services*, 12(2), 45-59.
- Aina, L. O. (2020). *Library and information science for academic performance in Nigerian universities*.
- Ajebomogun, F. O., & Salaam, M. O. (2017). Students' attitude as a determinant of information-seeking behavior in Nigerian university libraries. *Library Philosophy and Practice (e-journal)*.
- Alenezi, M., Wardat, S., & Akour, M. (2023). The need of integrating digital education in higher education: Challenges and opportunities. *Sustainability*, 15(6), 4782.
- Ani, M. I., Adetoro, N. A., & Ojo, A. T. (2022). Access to online information resources and academic achievement of undergraduates in African universities. *African Journal of Library, Archives and Information Science*, 32(1), 45-61.
- Ani, O. E., & Edem, N. (2020). Digital resources and library services in Nigerian universities.

- Journal of Library and Information Services in Distance Learning*, 14(1-2), 45-60.
- Anyim, W. O. (2018). Electronic information resources for learning and research activities among undergraduate students in the university library. *Library Philosophy and Practice*.
- Bandara, A., Perera, H., & Silva, K. (2021). E-resources usage and student academic outcomes. *Electronic Library*, 39(3), 352-370.
- Baro, E. E., & Fyneman, B. (2021). Challenges in the use of electronic resources by students in African universities. *Electronic Library*, 39(2), 271-285.
- Bassi, M. D., & Camble, E. (2019). Print and digital resources: Complementary roles in student learning. *College & Research Libraries*, 80(2), 210-224.
- Basuony, M. A., et al. (2021). Student engagement with digital learning platforms. *Education and Information Technologies*, 26(4), 4801-4817.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
<https://doi.org/10.2307/249008>
- Emmachika, O. L., Nnatu, A. U., & Okechukwu, N. N. (2026). Impact of poor internet connectivity on electronic library services and the development of offline-accessible digital library software. *Journal Innovation in Information and Computer Technology*, 3(1), 1-11.
- Fabunmi, B. A. (2019). The role of textbooks in higher education learning. *African Journal of Educational Research and Development*, 12(2), 87-96.
- Hawkins, A. L. (2010). Relationship between undergraduate student activity and academic performance. *The Journal of Genetic Psychology*.
- Idiegbeyan-Ose, J., Ifijeh, G., Aregbesola, A., Owolabi, S., & Toluwani, E. (2019). E-resources vs prints: Usage and preferences by undergraduates. *DESIDOC Journal of Library & Information Technology*, 39(2), 125-130.
- Igwe, K. N. (2020). Awareness and use of library information resources by undergraduate students in Nigeria. *International Journal of Knowledge Content Development & Technology*, 10(4), 47-63.
- Jaya, A., Hartono, R., Wahyuni, S., & Yulianto, H. J. (2025). The power of collaborative learning. *Journal of Education and Applied Teaching*, 1(1), 1-10.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1974). Utilisation of mass communication by the individual. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communication: Current perspectives on gratification research* (pp. 19-32). Beverly Hills, CA: Sage.
- Mizrachi, D., & Salaz, A. M. (2018). Academic reading format preferences among students. *College & Research Libraries*, 81(2), 193-217.
- Ogunbodede, K. F., & Oribhabor, C. B. (2022). Digital resources usage and academic performance of undergraduate students in Nigeria: A case study. *European Journal of Interactive Multimedia and Education*, 3(2), e02213.
- Okiki, O. C. (2020). Motivation and academic library resource use among undergraduates in Nigeria. *Library Philosophy and Practice*.
- Olanlokun, S. O., & Salisu, T. A. (2021). The hybrid library and the future of academic libraries in Nigeria. *Library Philosophy and Practice (e-journal)*, 5492.
- Qureshi, M. A., et al. (2023). Collaborative learning and student performance. *Interactive Learning Environments*, 31(4), 2371-2391.
- Tella, A. (2019). Information-seeking behaviour and the use of electronic resources by undergraduates. *Library Philosophy and Practice*.
- Thanuskodi, S. (2020). E-resources and digital library services in academic libraries. *Library Philosophy and Practice (e-journal)*, 1-11.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.