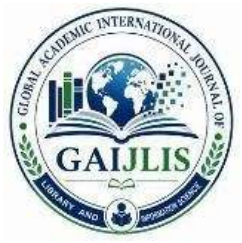
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# EVALUATION OF THE IMPACT OF ELECTRONIC LIBRARY SERVICES ON THE ACCREDITATION OF MEDICAL FACULTIES: A CASE STUDY OF THE FEDERAL UNIVERSITY OF HEALTH SCIENCES, OTUKPO, BENUE STATE

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## *Abstract*

**Context:** Electronic library (e-library) services are increasingly important to the provision of current information for teaching, learning and research in medical faculties. This study assessed the availability and utilisation of e-library services and examined their contribution to medical faculty accreditation requirements at the Federal University of Health Sciences, Otukpo (FUHSO), Benue State, Nigeria.

**Methodology:** The study adopted a descriptive survey design. Data were collected from 177 faculty members using a structured questionnaire. The data were analysed using descriptive statistics, particularly frequencies and percentages, to determine the availability, utilisation patterns, perceived accreditation contributions and challenges affecting effective use of e-library services.

**Findings:** The findings showed that medical and health science databases, e-books and e-journals were the most available and frequently utilised electronic resources. However, institutional repositories, OPAC and remote access services recorded comparatively lower availability and utilisation. Respondents strongly perceived e-library services as supporting faculty research activities (95.0%), teaching requirements (90.9%), accreditation readiness (90.9%), and access to current academic literature (90.0%). Major barriers included high cost of off-campus data access (85.8%), unstable power supply (80.8%), high database subscription costs (79.1%), inadequate internet connectivity (75.8%), and limited off-campus remote access (71.7%).

**Conclusion:** E-library services make a substantial contribution to teaching, research and medical faculty accreditation at FUHSO. However, infrastructure, financial and remote-access challenges limit their effectiveness. Addressing these constraints would improve the utilisation and accreditation value of e-library services.

**Keywords:** e-library services, electronic resources, medical faculty, accreditation, Federal University of Health Sciences.

*Corresponding author(s) Agada, E.O. et al (2026) agree that this article remain permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

## Introduction

Electronic library services play a crucial role in higher education, particularly in medical faculties, by providing access to digital resources such as electronic journals, e-books, online databases, and institutional repositories (Francis, 2023). In medical education, where up-to-date and peer-reviewed materials are essential, electronic libraries enhance research, learning, and

teaching outcomes (Challa et al., 2021). Given the strict accreditation requirements set by regulatory bodies like the Nigerian University Commission (NUC) and the Medical and Dental Council of Nigeria (MDCN), it is vital to examine how electronic libraries contribute to meeting these standards.

Accreditation ensures that medical faculties maintain academic excellence, adhere to curricula, and provide adequate learning resources (Al-Worafi, 2023). One key accreditation criterion is the availability and accessibility of current and comprehensive library resources. As medical education increasingly depends on electronic information systems, understanding their impact on accreditation processes is critical. This study focuses on the Federal University of Health Sciences, Otukpo (FUHSO), Benue State, to assess how electronic library services support the accreditation process of its medical faculty. By examining these services, the research highlights their significance in sustaining academic quality and meeting regulatory requirements.

**Statement of the Problem**

Despite the increasing adoption of electronic library services in Nigerian universities, their role in accreditation remains underexplored, particularly in medical faculties that require extensive academic resources to meet accreditation standards (Olubiyo & Olubiyo, 2023). Many institutions struggle with inadequate access to updated materials, posing challenges to accreditation compliance. At FUHSO, a newly established health sciences institution, electronic library services are expected to be vital for academic excellence and accreditation success, yet their actual impact remains unclear. Accreditation agencies emphasize the importance of both physical and electronic library resources in their evaluation criteria, and failure to meet these standards can negatively affect enrollment, funding, and institutional reputation (Nkiko et al., 2015). As electronic library services become a dominant mode of accessing academic materials, it is crucial to assess their effectiveness, accessibility, and compliance with accreditation requirements in supporting the accreditation of FUHSO's medical faculty.

**Objectives of the Study**

The main aim of the study was to examined evaluation of the impact of electronic library services on the accreditation of Medical Faculties: A Case Study of the Federal University of Health Sciences, Otukpo, Benue. The specific objectives of this study are to:

(i) Assess the availability and utilization of e-library services at FUHSO.
(ii) Analyze the relationship between e-library services and accreditation requirements for medical faculties.
(iii) Evaluate the perceptions of faculty members regarding the effectiveness of e-library services in meeting accreditation standards.
(iv) Identify challenges associated with the adoption and use of e-library services in medical faculties

**Research Questions**

The following research questions were raised to guide the study:

i. What types of e-library services are available and utilised at FUHSO?
ii. How do e-library services contribute to meeting accreditation criteria?
iii. What are the perceptions of faculty about the impact of e-library services on accreditation?
iv. What are the barriers to effective utilization of e-library services in medical faculties?

**Literature Review**

**Electronic Library Services and Medical Faculty Accreditation**

The integration of electronic library services within higher education institutions has transformed the landscape of medical

education and health sciences research (Ahmad et al., 2023). Regulatory and professional accreditation bodies—such as the Medical and Dental Council of Nigeria (MDCN) and the National Universities Commission (NUC)—increasingly emphasize the provision of up-to-date, evidence-based digital resources as a core benchmark for institutional quality and faculty readiness. This literature review synthesizes scholarly perspectives across four thematic dimensions aligned with academic accreditation standards: the availability of digital collections, user adoption dynamics, contributions to accreditation compliance, and systemic operational barriers.

Availability and Utilisation of E-Library Services in Medical Education

The structural shift from traditional print-based repositories to digital academic ecosystems is fundamental to contemporary medical training. Specialized medical and health science databases (e.g., PubMed, ScienceDirect, EbscoHost, and Hinari) provide researchers and students with access to peer-reviewed, evidence-based literature vital for clinical decision-making and academic coursework (Abiodun-Asanre, 2023).

However, studies focusing on African higher education institutions highlight significant disparities between the formal availability of e-resources and real user access (Abiodun-Asanre, 2023). While core databases and full-text e-journals are frequently licensed, off-campus access infrastructure such as federated single sign-on systems (e.g., Shibboleth or EZproxy) remains underrepresented in newly established specialized institutions. This creates a reliance on physical library workstations and localized campus networks, restricting round-the-clock research continuity.

**Pattern and Frequency of Utilization among Medical Students and Faculty**

The adoption and frequency of e-library usage are strongly tied to user status and academic purpose (Ahmad et al., 2023). Faculty members predominantly utilize electronic resources for scholarly paper preparation, clinical teaching, and empirical research, whereas students prioritize coursework assignments, literature searches, and examination preparation (Abiodun-Asanre, 2023; Ahmad et al., 2023). Research demonstrates that highly structured, specialized medical databases experience the highest frequency of daily and weekly usage compared to general e-books or institutional repositories (Abiodun-Asanre, 2023). Despite the growth of institutional repositories intended to showcase locally generated research output, studies consistently show lower user engagement with local repositories compared to global peer-reviewed databases (Abiodun-Asanre, 2023). This gap is largely attributed to a lack of awareness, limited local archiving policies, or poor user interface indexing.

**Strategic Role of E-Libraries in Faculty Accreditation Readiness**

Accreditation exercises evaluate an institution's capacity to deliver quality medical education through adequate physical, intellectual, and digital infrastructure (Bigdeli et al., 2021). Electronic libraries contribute to meeting accreditation standards in several ways: Resource Adequacy: E-libraries allow institutions to overcome physical space limitations by providing access to thousands of e-journals and e-books without requiring expansive physical collection space. Currency of Literature: Unlike print collections, which suffer from acquisition delays and physical deterioration, digital subscriptions ensure that medical faculties maintain access to the latest clinical trial data and medical guidelines (Bigdeli et al., 2021). Research Productivity Support: Robust digital library infrastructure directly correlates with higher academic publication output among medical faculty, a primary metric evaluated during

accreditation assessments (Bigdeli et al., 2021; Ahmad et al., 2023).

**Challenges and Operational Infrastructure Barriers**

Despite the clear benefits, higher education institutions in developing contexts face significant structural barriers to maximizing the potential of e-library services (Ahmad et al., 2023; Bigdeli et al., 2021). Key barriers documented in empirical literature include: Power Instability and Internet Bandwidth: Unreliable public power supply and limited internet bandwidth frequently disrupt access to cloud-hosted databases, severely degrading the user experience (Bigdeli et al., 2021). High Subscription Costs: The escalating costs of international database subscriptions present a financial burden for young universities, leading to service interruptions when annual licensing fees cannot be sustained (Bigdeli et al., 2021). Digital Literacy and Technical Support Gaps: While younger cohorts of medical students are generally comfortable with digital technology, advanced information search techniques (e.g., Boolean operators and MeSH indexing) require structured training (Ahmad et al., 2023). A lack of continuous library user-education programs leads to underutilization of expensive subscribed resources (Abiodun-Asanre, 2023).

## Methodology

### Research Design

This study adopted a descriptive survey research design to collect structured empirical data on the availability, utilization, user perceptions, and systemic challenges of e-library services from a representative sample of faculty members without manipulating the operational environment. The target population comprised 177 academic staff of the Federal University of Health Sciences, Otukpo (FUHSO), Benue State, Nigeria [FUHSO Staff Record, 2025]. Using the Taro Yamane formula, a sample size of 123 was determined. A purposive sampling technique was employed to ensure proportional representation across faculties, with particular emphasis on members of accreditation committees. Data were collected using a structured self-administered questionnaire titled “FUHSO E-Library Accreditation Questionnaire” consisting of eight sections: Section A: Demographics; Section B: Availability on a 4-point scale; Section C: Utilization on a 5-point scale; Section D: Accreditation Contribution on a 5-point Likert scale; Section E: User Perceptions on a 5-point Likert scale; Section F: Challenges on a 5-point scale; Section G: Open-ended qualitative questions; and Section H: Overall Assessment. Face and content validity were established through expert review by senior researchers in Library and Information Science and Medical Education, while internal consistency was confirmed through a pilot study with a Cronbach’s alpha coefficient ($\alpha$) > 0.80 across all Likert-type sections. Data were analyzed using SPSS statistical software, and descriptive statistics including frequencies and percentages were computed to address all research questions.

## Presentation of Result

### Section A: Demographic Profile of Respondents

The demographic breakdown illustrates a robust representation across both primary user groups (students and academic staff), age distribution, and library exposure length.

| Variable | Classification Category | Percentage (%) | Distribution |
|---|---|---|---|
| Respondent Status | Faculty Member | 100% | |
| Sex Distribution | Male | 53.3% | |

| | | |
|---|---|---|
| | Female | 44.2% |
| | Prefer not to say | 2.5% |
| Age Range | Below 20 years | 16.7% |
| | 20–29 years | 49.2% |
| | 30–39 years | 16.7% |
| | 40–49 years | 11.7% |
| | 50 years and above | 5.8% |
| Length of Library Use | Less than 1 year | 25.8% |
| | 1–2 years | 34.2% |
| | 3–4 years | 25.0% |
| | 5 years and above | 15.0% |

The results show that faculty members constituted the majority of the respondents (100%), This indicates that the responses were obtained predominantly from faculty members. In terms of sex, 53.3% of the respondents were male, while 44.2% were female. A further 2.5% preferred not to disclose their sex. The distribution therefore shows a relatively balanced representation of male and female respondents, with males constituting a slightly larger proportion. Regarding age, the largest proportion of respondents (49.2%) was between 20 and 29 years. Respondents below 20 years and those aged 30–39 years each constituted 16.7%. Those aged 40–49 years accounted for 11.7%, while respondents aged 50 years and above represented 5.8%. Thus, the respondents were predominantly within the 20–29-year age group.

With respect to length of library use, the largest proportion of respondents (34.2%) had used the library for 1–2 years. This was followed by those who had used the library for less than one year (25.8%) and those with 3–4 years of library use (25.0%). Respondents who had used the library for 5 years and above constituted 15.0%. The distribution suggests that most respondents had sufficient exposure to the library environment to provide information about their experiences and use of library services.

**Section B: Availability and Utilisation of Electronic Library Services**

Research Question 1: What types of e-library services are available and utilised at FUHSO?

| E-Library Resource / Service | Very Available (%) | Available (%) | Moderately Available (%) | Not Available (%) |
|---|---|---|---|---|
| Medical & Health Science Databases | 45.8% | 32.5% | 20.8% | 0.8% |
| Electronic Books (E-books) | 43.3% | 39.2% | 10.8% | 6.7% |
| Electronic Journals (E-journals) | 35.8% | 35.0% | 18.3% | 10.8% |
| Online Public Access Catalogue (OPAC) | 16.7% | 33.3% | 30.0% | 20.0% |

| | | | | |
|---|---|---|---|---|
| Institutional Repository | 13.3% | 28.3% | 35.0% | 23.3% |
| Remote Access Services | 10.8% | 21.7% | 30.8% | 36.7% |

Table 2 presents the respondents' assessment of the availability of electronic library resources and services at FUHSO. The findings indicate varying levels of availability across the different e-library services. Medical and Health Science Databases recorded the highest level of availability. Specifically, 45.8% of respondents rated the databases as very available, while 32.5% considered them available. A further 20.8% rated them moderately available, and only 0.8% indicated that they were not available. Thus, medical and health science databases appear to be the most accessible e-library resource among the services assessed.

E-books also recorded a high level of availability, with 43.3% of respondents indicating that they were very available and 39.2% reporting that they were available. Only 10.8% rated them as moderately available, while 6.7% reported that they were not available. This suggests that electronic books are substantially available to users of the university library.

For e-journals, 35.8% of respondents rated them as very available and 35.0% as available. However, 18.3% considered them moderately available and 10.8% reported that they were not available. The result therefore indicates a generally favourable level of e-journal availability, although access is not equally experienced by all respondents.

The availability of OPAC was comparatively lower. While 16.7% of respondents reported that it was very available and 33.3% rably indicated that it was available, 30.0% rated it moderately available and 20.0% reported that it was not available. This indicates that access to OPAC services was less satisfactory than access to databases, e-books and e-journals.

The institutional repository showed a similar pattern of relatively limited availability. Only 13.3% of respondents rated it as very available and 28.3% as available. In contrast, 35.0% rated it moderately available, while 23.3% reported that it was not available.

Remote access services recorded the lowest level of availability among the services assessed. Only 10.8% of respondents considered them very available and 21.7% indicated that they were available. Meanwhile, 30.8% rated them moderately available and 36.7% reported that they were not available. This suggests that remote access constitutes a notable area of weakness in the provision of e-library services at FUHSO. Therefore, the results show that medical and health science databases, e-books and e-journals were the most available e-library services, whereas OPAC, institutional repository and particularly remote access services had comparatively lower availability. Therefore, in response to Research Question 1, the e-library services available at FUHSO include medical and health science databases, e-books, e-journals, OPAC, institutional repository and remote access services, but their levels of availability vary conside

**Section C: Utilisation Frequency of E-Library Services**

Analysis of usage patterns indicates high engagement with specialized medical databases and core electronic text resources, whereas off-campus remote access and repository engagement remain lower.

| Electronic Service | Daily (%) | Weekly (%) | Monthly (%) | Rarely (%) | Never (%) |
|---|---|---|---|---|---|
| Medical Databases | 41.7% | 35.0% | 14.2% | 7.5% | 1.7% |
| Electronic Journals | 36.7% | 39.2% | 15.8% | 5.0% | 3.3% |
| Electronic Books | 32.5% | 40.0% | 15.0% | 7.5% | 5.0% |
| Remote Access Services | 14.2% | 17.5% | 30.0% | 20.8% | 17.5% |
| Institutional Repository | 5.0% | 20.8% | 22.5% | 32.5% | 19.2% |

Medical databases recorded the highest daily utilisation, with 41.7% of respondents indicating that they used them daily. Another 35.0% used the databases weekly, while 14.2% used them monthly. Only 7.5% reported rare use and 1.7% indicated that they never used medical databases. The finding suggests that medical databases constitute an important and frequently used electronic information service among the respondents.

For electronic journals, 36.7% of respondents reported daily use, while 39.2% used them weekly. A further 15.8% used e-journals monthly, whereas 5.0% used them rarely and 3.3% never used them. This demonstrates a high level of engagement with electronic journals.

Similarly, electronic books recorded substantial utilisation. 32.5% of respondents used e-books daily and 40.0% used them weekly. Monthly users accounted for 15.0%, while 7.5% used them rarely and 5.0% never used them. Thus, e-books were also among the more frequently utilised e-library services.

In contrast, remote access services recorded considerably lower frequent utilisation. Only 14.2% of respondents used them daily and 17.5% weekly. The largest proportion, 30.0%, used remote access services monthly, while 20.8% used them rarely and 17.5% never used them. This indicates relatively limited regular engagement with remote access services.

The institutional repository recorded the lowest level of frequent utilisation. Only 5.0% of respondents used it daily, while 20.8% used it weekly and 22.5% monthly. However, 32.5% reported rare use and 19.2% indicated that they never used the repository. The finding points to comparatively low engagement with the institutional repository.

Thus, the utilisation pattern shows that medical databases, e-journals and e-books are the most frequently utilised e-library services at FUHSO. Medical databases had the highest proportion of daily users (41.7%), while e-books had the highest proportion of weekly users (40.0%). Conversely, remote access services and the institutional repository recorded substantially lower utilisation, with rare and never-use responses particularly prominent for the institutional repository. Therefore, the findings indicate that respondents make

greater use of core electronic information resources directly relevant to their academic and health-science information needs, while utilisation of remote access and institutional repository services remains comparatively limited.

**Section D: Contribution to Medical Faculty Accreditation Requirements**

Research Question 2: How do e-library services contribute to meeting accreditation criteria?

| Accreditation Contribution Criterion | SA (%) | A (%) | U (%) | D (%) | SD (%) |
|---|---|---|---|---|---|
| Supports Faculty Research Activities | 58.3% | 36.7% | 0.8% | 1.7% | 2.5% |
| Supports Teaching Requirements | 54.2% | 36.7% | 5.0% | 2.5% | 1.7% |
| Strengthens Accreditation Readiness | 49.2% | 41.7% | 5.8% | 2.5% | 0.8% |
| Provides Current Academic Literature Access | 48.3% | 41.7% | 3.3% | 4.2% | 2.5% |

Table above shows that respondents generally perceived e-library services as making a substantial contribution to meeting medical faculty accreditation requirements. Across all four criteria, the combined proportions of respondents who strongly agreed or agreed were considerably higher than those who disagreed or strongly disagreed. Regarding support for faculty research activities, 58.3% of respondents strongly agreed that e-library services support faculty research, while 36.7% agreed. Only 0.8% were undecided, 1.7% disagreed and 2.5% strongly disagreed. The combined 95.0% agreement indicates a very strong perception that e-library services support research activities within the faculty. For support of teaching requirements, 54.2% strongly agreed and 36.7% agreed that e-library services support teaching requirements. A further 5.0% were undecided, while 2.5% disagreed and 1.7% strongly disagreed. The combined agreement of 90.9% suggests that respondents largely regarded e-library services as important for supporting teaching activities.

On whether e-library services strengthen accreditation readiness, 49.2% strongly agreed and 41.7% agreed. Only 5.8% were undecided, while 2.5% disagreed and 0.8% strongly disagreed. Thus, 90.9% of respondents expressed agreement that e-library services contribute to the faculty's readiness for accreditation. Similarly, 48.3% strongly agreed and 41.7% agreed that e-library services provide access to current academic literature. In comparison, 3.3% were undecided, 4.2% disagreed and 2.5% strongly disagreed. The combined agreement of 90.0% demonstrates that respondents strongly associated e-library services with access to current academic literature.

The findings indicate that e-library services contribute to medical faculty accreditation requirements in several important ways. They support faculty research activities,

facilitate teaching requirements, strengthen accreditation readiness, and provide access to current academic literature. The strongest perceived contribution was support for faculty research activities (95.0% agreement), followed by teaching requirements (90.9%), accreditation readiness (90.9%), and access to current academic literature (90.0%). Therefore, based on the responses, e-library services are perceived to make a substantial contribution to meeting medical faculty accreditation requirements at the study institution.

**Section E: Perceptions of Faculty Members**

Research Question 3: What are the perceptions of faculty and students regarding e-library effectiveness?

- Academic Utility: 95.9% of respondents (64.2% Strongly Agree, 31.7% Agree) confirm that electronic library resources are highly useful for their core academic activities.
- Information Currency: 76.7% (40.0% Strongly Agree, 36.7% Agree) consider the available digital collections to be sufficiently up-to-date for medical curriculum standards.
- Technical Support & Guidance: 33.4% expressed dissatisfaction or hesitation regarding user support efficiency, highlighting a crucial area for operational improvement.
- Institutional Investment Needs: 92.5% (68.3% Strongly Agree, 24.2% Agree) strongly advocate for increased institutional funding and administrative support.

**Section F: Challenges Affecting Adoption and Use**

Research Question 4: What are the key barriers to effective e-library utilisation in medical faculties?

| Identified Barrier / Challenge | Very Serious (%) | Serious (%) | Moderate (%) | Low / None (%) |
|---|---|---|---|---|
| Unstable Power Supply | 58.3% | 22.5% | 9.2% | 10.0% |
| High Cost of Off-Campus Data Access | 53.3% | 32.5% | 5.8% | 8.3% |
| High Database Subscription Costs | 43.3% | 35.8% | 13.3% | 7.5% |
| Inadequate Internet Connectivity | 42.5% | 33.3% | 15.0% | 9.1% |
| Limited Off-Campus Remote Access | 30.0% | 41.7% | 20.8% | 7.5% |

The findings indicate that respondents experienced several challenges that could affect the effective adoption and utilisation of e-library services in medical faculties. The major barriers identified were unstable power supply, high cost of off-campus data access, high database subscription costs, inadequate internet connectivity, and limited off-campus remote access.

Unstable power supply emerged as the most prominent challenge. As many as 58.3% of respondents rated it as a very serious barrier, while 22.5% considered it serious. Only 9.2% regarded it as moderate and 10.0% considered it low or not a challenge. The combined 80.8% rating of very serious or serious demonstrates that electricity supply constitutes a major obstacle to effective use of e-library services. The high cost of off-campus data access was also identified as a substantial challenge. 53.3% of respondents rated it very serious and 32.5% rated it serious. Only 5.8% considered it moderate, while 8.3% rated it low or reported no challenge. Thus, 85.8% regarded the cost of off-campus data access as either very serious or serious, making it the most strongly reported challenge when the two highest severity categories are combined. Similarly, high database subscription costs constituted a significant barrier. 43.3% of respondents rated this challenge as very serious and 35.8% as serious. A further 13.3% considered it moderate, while 7.5% rated it low or reported no challenge. The combined 79.1% very serious/serious response indicates that the cost of providing access to specialised databases is a considerable concern. For inadequate internet connectivity, 42.5% of respondents regarded it as very serious, while 33.3% considered it serious. Another 15.0% rated it moderate and 9.1% rated it low or none. Therefore, 75.8% of respondents identified inadequate internet connectivity as either a very serious or serious barrier. Limited off-campus remote access was also reported as a challenge, although its distribution differed somewhat from the other barriers. 30.0% of respondents rated it very serious and 41.7% serious, giving a combined 71.7% rating in the two highest severity categories. Meanwhile, 20.8% considered it moderate and 7.5% rated it low or reported no challenge. The findings demonstrate that the effective utilisation of e-library services is affected by a combination of infrastructural, financial and access-related barriers. When the very serious and serious categories are combined, high cost of off-campus data access (85.8%) recorded the highest proportion, followed by unstable power supply (80.8%), high database subscription costs (79.1%), inadequate internet connectivity (75.8%), and limited off-campus remote access (71.7%).

Therefore, the major barriers to effective e-library utilisation identified by the respondents are high off-campus data costs, unstable electricity supply, high database subscription costs, inadequate internet connectivity, and limited remote access.

## Summary of Findings

**Availability of e-library services:** The findings revealed that several electronic library services are available at FUHSO. Medical and health science databases, e-books and e-journals recorded the highest levels of availability. Medical and health science databases had the strongest availability, with 78.3% of respondents rating them as either very available or available. E-books followed with 82.5%, while e-journals recorded 70.8%. In contrast, OPAC, institutional repository and remote access services had comparatively lower levels of availability. Remote access services recorded the lowest availability, with only 32.5% of respondents rating them as very available or available.

**Utilisation of e-library services:** The study found that respondents frequently utilised medical databases, e-journals and e-books. Medical databases recorded 76.7% daily or weekly utilisation, while e-journals recorded 75.9% and e-books 72.5%. However, utilisation of remote access services and the institutional repository was relatively low. Only 31.7% of respondents used remote access services daily or weekly, while institutional repository use was only

25.8% at these frequencies. This indicates stronger engagement with core electronic information resources than with remote and repository-based services.

**Contribution to medical faculty accreditation:**
The findings showed that respondents perceived e-library services as making a substantial contribution to meeting accreditation requirements. 95.0% of respondents agreed or strongly agreed that e-library services support faculty research activities. Similarly, 90.9% agreed or strongly agreed that the services support teaching requirements, while 90.9% indicated that they strengthen accreditation readiness. In addition, 90.0% agreed or strongly agreed that e-library services provide access to current academic literature. These findings demonstrate that e-library services are perceived as important components of the academic and research infrastructure required for medical faculty accreditation.

**Challenges affecting e-library utilisation:**
The study identified several major barriers to effective utilisation. High cost of off-campus data access was the most prominent when the very serious and serious categories were combined, accounting for 85.8%. This was followed by unstable power supply (80.8%), high database subscription costs (79.1%), inadequate internet connectivity (75.8%), and limited off-campus remote access (71.7%). The findings therefore show that financial, infrastructural and access-related factors remain significant constraints on effective e-library utilisation.

## Conclusion

Based on the findings of the study, it is concluded that electronic library services play an important role in supporting teaching, learning, research and medical faculty accreditation at the Federal University of Health Sciences, Otukpo (FUHSO). The study established that a range of e-library resources and services are available to users, although their levels of availability differ considerably. The findings show that medical and health science databases, electronic books and electronic journals are the most prominent and frequently utilised e-library resources. Their relatively high utilisation indicates that users depend considerably on electronic information resources to support their academic and research activities. However, the comparatively lower availability and utilisation of institutional repositories, OPAC and remote access services suggest that some components of the e-library system have not yet achieved the same level of accessibility and user engagement. The study further concludes that e-library services make a substantial contribution to medical faculty accreditation requirements. Respondents strongly recognised their contribution to faculty research activities, teaching requirements, accreditation readiness and access to current academic literature. This demonstrates that a functional e-library is not merely a supplementary library facility but an important component of the academic and research infrastructure that supports the quality assurance and accreditation needs of a medical faculty. Despite these contributions, the effective utilisation of e-library services is constrained by high costs of off-campus data access, unstable electricity supply, high database subscription costs, inadequate internet connectivity and limited off-campus remote access. These challenges can restrict users' ability to obtain electronic information consistently, particularly when they need to access resources outside the university environment. In conclusion, the effectiveness of e-library services at FUHSO depends not only on the availability of electronic resources but also on reliable infrastructure, affordable connectivity, sustainable database subscriptions and effective remote access facilities. Addressing these challenges would strengthen the utilisation of e-library services and enhance their contribution to teaching, research and the institution's preparedness

for medical faculty accreditation.

**Strategic Recommendations:**

Based on the findings and conclusions of the study, the following recommendations are made:

1. The university management should strengthen the provision of e-library resources, particularly medical and health science databases, e-books and e-journals, since these resources were found to be highly relevant and frequently utilised by respondents. Adequate and sustainable funding should be provided for their acquisition, renewal and maintenance.

2. The library should improve remote access to e-library resources**.** Since limited off-campus remote access was identified as a significant barrier, the university library should provide reliable authentication and remote-access facilities that enable students and faculty members to use subscribed electronic resources beyond the university campus.

3. The university management should improve internet connectivity within the institution**.** Adequate bandwidth and reliable network infrastructure should be provided to facilitate uninterrupted access to e-library databases, e-journals, e-books and other electronic services.

4. Alternative and reliable power supply should be provided for the library and related ICT facilities**.** The finding that unstable electricity supply was a major challenge makes it necessary for the university to strengthen its power infrastructure and provide suitable backup arrangements to ensure continuous availability of e-library services.

5. The cost of accessing electronic resources outside the university should be reduced**.** The university should explore arrangements that can reduce the financial burden of off-campus data access for students and faculty members, particularly for users who depend on e-library resources for teaching and research.

6. The library should strengthen the institutional repository**.** Since repository availability and utilisation were relatively low, the library should improve the repository's accessibility and encourage academic staff and researchers to deposit appropriate scholarly outputs. Greater awareness of the repository should also be created among students and faculty members.

7. The library should intensify user awareness and orientation programmes**.** Regular demonstrations, training sessions and practical orientation should be organised to improve users' knowledge of available e-library services, particularly OPAC, institutional repository and remote access services.

8. The university should sustain investment in e-library services as part of accreditation preparation**.** Since respondents identified e-library services as contributing substantially to research, teaching, access to current literature and accreditation readiness, the services should be incorporated into the institution's continuing quality-assurance and accreditation planning.

9. The library should regularly assess users' needs and utilisation patterns**.** Periodic assessment would enable the library to identify underutilised services, emerging information needs

and infrastructure gaps and use the findings to improve e-library provision.

10. The university management and library should adopt a sustainable funding strategy for e-library services. Given the challenge of high database subscription costs, funding should be planned on a long-term basis to minimise disruptions in access to essential electronic information resources.

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