

Provision of Online Databases by Librarians for Research among Academics of Polytechnics in Katsina State, Nigeria

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Abstract

The study investigated the provision of online databases by librarians for research among academics of polytechnics in Katsina state, Nigeria. The objectives of the study includes finding out the types of online databases provided by libraries for research among academics of Polytechnics in Katsina state and identifying challenges associated with the provision of online databases provided by libraries for research among academics in the Polytechnics under study. An exploratory sequential research design was used for this study, which targeted a population of librarians across the three (3) polytechnics in Katsina State. These included the Federal Polytechnic Daura (FPD) in Daura Local Government, Hassan Usman Katsina Polytechnic (HUK) in Batagarawa Local Government, and the Katsina State Institute of Technology and Management in Katsina. A purposive sampling technique was applied to select participants in which three (3) heads of the libraries were purposely selected. Data was collected using an interview schedule, and the reliability of the instrument was tested using credibility by audit inquiry. The data collected using the interview schedule was analyzed using thematic analysis and Nvivo version 15 was used in familiarization, categorization, coding, generating and naming of themes to ensure proper interpretation of the qualitative data. The participants under study were coded from P1 to P3 and the data were presented and categorized under the demographic data of participants in Table 1. The finding revealed a significant gap in providing online databases, with P1 reporting no databases provided while P2 and P3 provide access to a few online databases such as Elsevier, EBSCOhost, and JSTOR. This disparity highlighted a low outcome on research productivity, as some institutions lack essential academic resources. As such the study recommended that the polytechnic libraries should invest in reliable digital infrastructure to ensure stable access to different online databases. This includes improving internet connectivity, securing uninterrupted power supplies, and updating systems regularly.

Keywords: Online Databases, Librarians, Research, Academics Polytechnics

Introduction

The primary goal of academic libraries is to support teaching, learning, and research for the academic community. Research is a fundamental activity for any academic who aims to contribute new

knowledge or innovations that will add value to society. In the 21st century, this goal is largely supported through the provision of current and relevant information, with online databases playing a key role in this effort. Initially, online databases were primarily used by researchers and professionals. However, with advancements in information and communication technology, as well as the widespread availability of the internet, these databases have become accessible to a much broader audience, including academics (Kado, 2022). According to Imoniwe (2018), online databases cover a wide range of subjects, including academic journals, articles, books, and multimedia resources, making them invaluable tools for academic and research pursuits. These databases are typically hosted on websites and are made available as software-as-a-service products that can be accessed through web browsers.

One of the most exciting aspects of online databases, as noted by Chigbu (2021), is their accessibility. They can be accessed from anywhere, at any time, by multiple users simultaneously, offering a high level of convenience for researchers. These resources include online books, journals, magazines, newspapers, theses, dissertations, and more (Mohammed, Hamza & Idris, 2017), all of which greatly benefit researchers and scholars in their academic endeavors. The provision of these online databases by information professionals, such as librarians, helps academics carry out their research tasks effectively and efficiently. In this way, the availability of online databases has revolutionized the research process for academics, making it more accessible, efficient, and effective in polytechnics.

The integration of online databases into academic institutions has transformed how information is accessed, enabling academics to enhance their research and collaborate more effectively. Online databases provide timely, relevant, and high-quality information that helps researchers stay informed about the latest developments and discoveries, as materials from virtually all fields are now available online. Polytechnic libraries in Katsina State subscribe to several online databases, making these resources accessible to both academic staff and students. Despite the substantial budget allocations, often supported by initiatives such as the Tertiary Education Trust Fund (TETFund), the key question remains: are these resources being effectively utilized by academics? There is, therefore, a need to explore the types of online databases provided by polytechnic libraries in Katsina State from the perspective of the academics who are supposed to benefit from them.

An online database is a collection of data stored in one or more digital formats, accessible to users with the appropriate permissions and rights. These databases serve various purposes, such as storing, retrieving, and managing information on a wide range of topics, including books, newspapers, health records, and more. Online databases are invaluable research tools that complement traditional print resources in libraries. They are an essential component of digital library resources, providing structured, computer-based storage of information across multiple categories, such as people, places, subjects, or topics, and detailing the relationships between these categories. An online database is designed to convert vast amounts of data into an abstract tool, allowing users to search and extract relevant information in a user-friendly manner (Schmidt & Sonneveldt, 2020). According to Khan and Patel (2023), an e-database is a large, regularly updated collection of digitized information such as bibliographic records, abstracts, full-text documents, directories, images, and statistics related to specific fields. These databases are organized in a uniform way to facilitate quick and efficient search and retrieval, and they are managed through a Database Management System (DBMS).

The provision of online databases has become one of the primary responsibilities of librarians in the 21st century, as they play a crucial role in supporting teaching, learning, and research activities in academic institutions. With the rapid growth of digital information and the increasing reliance on technology, librarians are tasked with ensuring that academics have access to the most current, relevant, and comprehensive resources available (Mohammed, Hamza & Idris, 2017) . Online databases, which house a vast range of academic content such as journal articles, books, theses, and multimedia materials are integral tools for research and scholarly work in higher education. A study conducted by Ofua (2021) found that libraries in some institutions subscribe to a limited number of online databases, such as Agora, ProQuest, Hinari, OARE, Ajour, Science-Direct, and Ebscohost. Despite these offerings, the study revealed that the university did not provide a wide range of online databases, particularly in the sciences, even though several of these databases are interdisciplinary in nature. Similarly, Ivwighreghweta and Eireyi-Fidelis (2022) noted that databases like JSTOR, Elsevier, DOAI, ProQuest, ScienceDirect, and LexisNexis were used extensively, while others such as the NUC Virtual Library, Hinari, Research4Life, Agora, and Ebscohost were accessed less frequently in a study conducted in Delta State. This highlights the need for a comprehensive review and

expansion of the types of online databases provided by polytechnic libraries, ensuring better access and increased usage across different disciplines.

In spite of the importance of providing access to and use of online databases provided by libraries for research among academics in Polytechnics, there are still challenges that are associated with the access and use of these online databases provided by libraries in Polytechnics. A study conducted by Ani & Edem (2012) revealed that the major factors that impede access and use of online databases by academics include non-subscription of relevant online databases by the library, cost of access and usage, lack of access to relevant databases and lack of inadequate internet skills for proper access in the library. Similarly, Iroaganachi and Izuagbe (2018) in its findings revealed that HINARI, ProQuest, JSTOR, and EBSCOhost were the most regularly accessible online databases provided but incessant power supply and lack of downloadable full-text posed the greatest threats to online databases access. Similarly, the study found that the provision of full-text of most relevant research materials, steady power supply and acquisition of information literacy skills were the most effective ways of addressing online databases access constraints. Accordingly, the study recommended adequate funding of Polytechnic libraries, provision of alternative means of power generation and increased user education for maximum exploitation of subscribed databases.

Statement of the Problem

The provision of online databases by librarians has revolutionized access to information, enabling academics to engage in research activities more effectively. These databases are crucial resources for teaching, learning, and academic inquiry, and polytechnics, including those in Katsina State, invest significant funds to provide these resources. Librarians play a vital role in ensuring that these databases are accessible and available to academics, offering both the infrastructure and support needed for effective use. However, despite the provision of these resources, the actual utilization of online databases by academics in Katsina State polytechnics remains relatively low.

The underutilization of these resources suggests a disconnect between their availability and the intended use for research purposes. While librarians ensure that these databases are accessible and offer guidance on how to use them, challenges such as limited awareness,

insufficient training, or inadequate infrastructure may hinder academics from fully leveraging these resources. As a result, the provision of online databases by librarians, though essential, does not always translate into the expected academic benefits.

Objectives

1. Find out the types of online Databases provided by libraries for research among academics of Polytechnics in Katsina State.
2. Identify challenges associated with the provision of Online Databases provided by libraries for research among academics in the Polytechnics under study.

Research Design

An exploratory sequential research design was used for this study, which targeted a population of librarians across three polytechnics in Katsina State. These included the Federal Polytechnic Daura (FPD) in Daura Local Government, Hassan Usman Katsina Polytechnic (HUK) in Batagarawa Local Government, and the Katsina State Institute of Technology and Management in Katsina. A purposive sampling technique was applied to select three participants in three polytechnic libraries. Data was collected using an interview schedule, and the reliability of the instrument was tested using credibility by audit inquiry. As such expert in the area of study were given the findings to review and examine the processes. The data collected using the interview schedule was analysed using thematic analysis and Nvivo version 15 was used in familiarization, categorization, coding generating and naming of themes to ensure proper interpretation of the qualitative data. The participants under study were coded from P1 to P3 and the data were presented and categorized under the demographic data of participants in Table 1.

Table 1: Demographic Information of the Participants

S/n	Categories Interview	No. of Participants	Time Spent	Code Given	Gender	Years Working Experience	Date of Interview
1.	Katsina State Institute of Technology and Management Central Library	1	32 Minutes	P1	F	25 Years	13 th December, 2024
2.	Hassan Usman Katsina Polytechnic Central Library	2	29 Minutes	P2	M	18 Years	13 th December, 2024
3.	Federal polytechnic Daura	3	30 Minutes	P3	M	19 Years	12 th December, 2024
Total					3		

The Table 1 presents demographic information for three (3) participants from three different institutions: Katsina State Institute of Technology and Management Central Library, Hassan Usman Katsina Polytechnic Central Library, and Federal Polytechnic Daura. The interviews, conducted on December 12th and 13th, 2024, included participants with a range of work experience, from 18 to 25 years. Of the participants, one from Katsina State Institute of Technology and Management was female, while the others were males. The interview durations varied from 29 to 32 minutes, with participants' assigned codes P1, P2, and P3 based on their institutions.

RO1: Find out the types of online Databases provided by libraries for research among academics of Polytechnics in Katsina State

The study aims to ascertain the policies guiding access and use of online databases provided by libraries for research among academics of Polytechnics in Katsina State. To address this research objectives, the researcher conducted interviews with three (3) participants, uncovering the policies guiding access to and utilization of online databases provided by libraries for research among academics and the responses were categorized as:



Figure 1: Types of online Databases provided by libraries for research among academics (Field Survey, 2024)

The data showed that P1 reported that no online databases have been made available to academics at their institution. P2 stated that the online databases available to academics for research include the Katsima State Library database, EBSCOhost, Elsevier, Science direct, JSTOR, and sometimes directs users to the Direct Open Access Journal (DOAJ) database. P3 mentioned that the available databases include Elsevier, EBSCOhost, and JSTOR.

The responses indicate a significant gap in access to online databases across institutions. P1's response suggests that academics at their institution currently lack access to any online databases, which could severely hinder research productivity and access to vital academic resources. In contrast, P2 and P3 report a broader range of databases, including Elsevier, science direct, EBSCOhost, and JSTOR, which are

valuable for academic research. P2 further highlights access to the Katsina State Library database and occasional use of DOAJ, indicating a diverse set of resources available to support research.

RO2: Identify challenges associated with the types of Online Databases provided by libraries for research among academics in the Polytechnics under study

The study aims to ascertain the challenges associated with the types of online databases provided by libraries for research among academics in the polytechnics under study and the researcher conducted interviews with three (3) participants, uncovering the challenges associated with the access and use of online databases provided by libraries for research among academics and the responses were categorized as:



Figure 2: challenges affecting the provision of online databases by libraries for research among academics (Field Survey, 2024)

The responses highlight several key challenges faced by libraries in providing online databases to acad. P1 the challenges include none existence online databases since the library's inception, along with technical issues, power failures, insufficient technical expertise, and indifferent attitudes among librarians. P2 the challenges include lack of user awareness, rapid technological changes, and cybersecurity risks. P3 mentions budget constraints, the fast pace of technological change, and lack of skilled personnel to manage the systems effectively.

The data indicates that for effective provision of online databases to support academic research, libraries must invest in reliable digital infrastructure, ensuring stable access and minimizing technical disruptions. Budget constraints highlight the importance of securing adequate funding for ongoing system updates, while the rapid pace of technological change underscores the need for skilled personnel to manage these systems.

Discussion

RO1: Find out the types of online Databases provided by libraries for research among academics of Polytechnics in Katsina State. The finding revealed a significant gap in providing online databases, with P1 reporting no databases provided while P2 and P3 provide access to a range of databases such as Elsevier, EBSCOhost, and JSTOR. This disparity highlights a negative outcome on research productivity, as some institutions lack essential academic resources. This reflected findings by Mohammed et al. (2017), who noted that Nigerian universities often face challenges in providing access to a wide range of online databases, impacting research output. Chigbu (2021) underscores the importance of these resources in improving the quality of academic research, suggesting that disparities in database availability negatively affect academic performance.

RO2: Identify challenges associated with the types of online databases provided by libraries for research among academics in the Polytechnics under study. The finding revealed that challenges affecting the provision of online databases in polytechnic libraries include the absence of online databases, technical issues such as network failures and unreliable power supply, insufficient technical expertise, and a lack of support from library personnel. These challenges resonate with the findings of Ani and Edem (2012), who reported that technical limitations and poor ICT infrastructure are common barriers to database access in Nigerian universities. Moreover, Iroaganachi and Izuagbe (2018); Kado (2022) highlighted that training and support for database users are crucial to overcoming access barrier

Conclusions

The study conclude that the availability of online databases for academic research across polytechnics in Katsina State, with some institutions lacking providing access to any databases while others provide a variety of valuable resources such as Elsevier, EBSCOhost, and JSTOR. Key challenges identified include technical issues, unreliable power supply, insufficient technical expertise, budget constraints, and rapid technological advancements. These factors hinder the effective use of online databases, negatively impacting research productivity and academic growth. Addressing these issues through investments in infrastructure, training, and increased funding for database subscriptions is essential to enhance academic research capabilities in these institutions.

Recommendations

The study recommended the following:

1. There is a need for the intervention of Tertiary Education Trust Fund (TETFUND) to support polytechnics in subscribing to additional online databases that are essential for fostering innovation and research development. TETFUND's involvement can help bridge the financial gap and ensure that these institutions have access to cutting-edge resources that support new innovations and developments, especially in emerging fields. This investment will enhance the research capabilities of academics, encourage the pursuit of new knowledge, and promote technological advancement, thereby contributing to the growth of academic excellence in the polytechnics.
2. Polytechnic libraries should invest in reliable digital infrastructure to ensure stable access to different online databases. This includes improving internet connectivity, securing uninterrupted power supplies, and updating systems regularly. Furthermore, it is crucial to provide training and capacity-building programs for library staff to enhance their technical expertise in managing these databases effectively. This can reduce downtime and ensure better user support.
3. The polytechnics in the study area should allocate more funding for online database subscriptions, especially those crucial for academic research, such as Elsevier, JSTOR, and EBSCOhost. Additionally, there should be awareness programs to educate academics about the available resources and the importance of these databases for research. These efforts can bridge the gap in access and enhance the quality of academic work in the polytechnics.

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