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## AWARENESS, AVAILABILITY AND UTILIZATION OF DATABASES AMONG UNDERGRADUATE STUDENTS OF FEDERAL UNIVERSITY OF AGRICULTURE (FUAM) MAKURDI BENUE STATE

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AWARENESS, AVAILABILITY AND UTILIZATION OF DATABASES AMONG  
UNDERGRADUATE STUDENTS OF FEDERAL UNIVERSITY OF AGRICULTURE  
(FUAM) MAKURDI BENUE STATE

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**Abstract:**

*The purpose of the present study was to examine the awareness and use of databases by undergraduate students of FUAM one hundred students was randomly selected out of twenty thousand three hundred and twenty four (21324) in the study. A specifically designed questionnaire was administered to gather information about the awareness and use of databases by students. Results showed that the vast majority of the participants used Internet search engines rather than specialized databases and full-text resources. Only 6.8% became familiar with electronic resources by attending the library training programs. The main problem associated with the non-use of resources was lack of adequate searching skills. The above findings suggest limited use of databases by graduate students, mainly due to absence of basic skills, awareness. In order to exploit the full potential of information resources in the databases, university library should undertake a more active role in informing, promoting, and educating the members of the academic community.*

*Keywords:; Agriculture, Awareness, availability, Databases, library, Nigeria, Undergraduate Students, Utilization*

**Introduction**

The awareness of databases is one of the most important aspects of library services in the 21<sup>st</sup> century. The issue is not how many books you have but how many databases the library subscribed. The rationale behind this study is to identify the type databases available, level of awareness and utilization of the databases. This will provide students with the techniques and strategies to develop the necessary skills to access and use the databases and incorporate the knowledge gained to accomplish a specific purpose hopefully it will prepare students to use

databases effectively as life-long learners and to assist faculty in developing the necessary skills for the undergraduate students to succeed

The main objectives is to enable the undergraduate students to Identify the type of databases available and utilize the information in the databases effectively for a specific purpose the students will be encouraged to become problem solvers, to employ critical thinking, to address the issue at hand beyond their personal knowledge

### **Statement of the Problem**

One of the biggest problems facing librarians and patrons today is ensuring the integrity of information provided and being aware of where to find authoritative information. Despite the high-quality information that subscribed databases offer, prior research has reported underutilization of the databases. *Oduwale, A. A. & Sowole, A. O. (2006)* asserts that having harnessed technology does not guarantee use and calls for heavy marketing to help users be aware of the products. Recognizing the lack of awareness, other researchers also underscore the importance of promoting the databases so that potential users will utilize them and get value from them. The use of databases technology is still at infancy stage in developing countries like Nigeria

It is with the above scenario in mind that a research into the Awareness and Use of databases subscribed to by University Library is desirable. Moreover, it is against this background, the researcher observed that users of University Library under the area of study do not make much use of subscribed databases available to them, probably due to the lack of awareness or any other factors. For this reason therefore, the researcher undertake a study on awareness and use of subscribed databases by University Library

## **Objectives of the Study**

1. To find out the types of databases available in university under study
2. . To find out how under graduate students of the university library under study aware of the databases.
3. To find out the level of utilization of the databases by the undergraduate students in the university under study.
4. To identified the constraints affecting the utilization of the databases

## **Hypothesis**

**Hypothesis 1:** There is no statistically significant relationship between awareness and use of databases in FUAM.

## **Review of Related Literature**

### **Awareness on the Use of Databases**

Awareness is knowing what is going on or an understanding of the activities. It can also be described as specific coordination and knowledge sharing among library users. Studies have been conducted to ascertain the user awareness of databases in libraries electronic resources in university libraries. For example Sandra and Jane (2005) conducted a study, using a Survey to Achieve Faculty Awareness of the Library's Electronic Resources at Utah State University (USU); the result shows that, Dissertation Abstracts received the highest rating, with 76 percent of respondents aware of its electronic availability. It was followed by Current Contents (66%), ERIC (65%), and Agricola, Wilson's Reader's Guide to Periodical Literature, and General Periodicals Index (each 62%). Sixty percent of all respondents were aware of the electronic availability of Index to (US) Government Documents, whereas Wall Street Journal, Deseret

News, and Wilson's Sciences Index were each known by 59 percent of respondents. The lowest rating was for the business database On Point, with only 28 percent of respondents aware of its availability. The level of awareness revealed by the survey is very encouraging. This is probably the idea of exposing library users to a wide range of online databases resources in line with ICT-based components of the university libraries is an acceptable development. This is a demonstration of education reform, one of which is the introduction and integration of ICTs in the education system not only in developed countries but also in developing countries like Nigeria.

According to Uwaifo (2012) in the survey awareness and use of electronic information resources by library and information science students in Delta state university, Abraka. The findings of the survey show that the respondents are aware of the 29 identified electronic information resources. Top of the list is electronic mail (97.69%), followed by OPAC (95.95%), digital library (95.35%), databases (94.22%), chatting (93.64%), online newspaper (92.49), open access journal (92.49), spotting news (92.49%), e-books (91.91%), CD-ROMs (91.33%) etc. In this survey, the user degree of awareness is very encouraging. This is not surprising because of the fact that there are numerous ICT-based in the curriculum of library and information science programme. Also, the age of globalization we are in, encourages the use of electronic resources. Thus, their awareness becomes imperative.

Base on the above, it implies that the role of university libraries in Nigeria should be refined, and to help this process, libraries should find effective ways of promoting awareness of available databases. Emphasis needs to be placed on making users aware of databases due to student continued reliance on lower quality free web resources.

The literature reviewed on awareness of databases by university library varied from one library to another; in some studies the findings shows high rate of awareness, while others shows low rate of user awareness, but indeed no research conducted on this issue in university library at FUAM, Benue Katsina state and this warrants the present study.

### **Forms of Databases Available in Agriculture University Library**

Consequently, the study carried out by Vijayakumar (2017) opined that majority of the respondents said that newspapers, project reports, subject books, CD-ROM database and reference books are available and thesis, general books and web resources are less available. His views were corroborated by Kwaghgba and et-al (2015), Onye (2016), Yaseen and et-al (2016), Ajiji (2017), Aladeniyi and Temitope (2018) and Das Parnab (2015), while Abubakar (2017). It stressed the e-databases subscribed to research by agricultural scientists in federal University libraries in Nigeria such as AGORA and African Journals, others include CD-ROM, MEDLINE, PubMed, Biomed Central, Online and HINARI, CAB Abstracts, BEAST CD, VET CD, and TEEAL. This finding is agreed upon by Bello and Chioma (2020) an evaluation of the extent of ICT deployment in academic libraries in Oyo State, Nigeria, on the globalization of library and information services, where they confirmed the availability of E-Granary, EBSCOHOST, JSTOR, Jaypee Digital, HINARI, AGORA and OARE with the Directory of Open Access Journals (DOAJ) and partial Institutional Repository (IR). These views were agreed upon by Rukwaro (2015) Ekene and et-al (2016) They claimed that libraries receive information materials such as books, theses, papers, magazines, encyclopedias, dictionaries, e-journals e-books, etc. But Akpe and et-al (2018) has a different opinion where he stated that information resources are not sufficient. This indicates that the views of respondents on their responses to the types of information requirements in the Library are not too different from each other. The study

conducted by Afianmagbon and et-al (2020) Availability of information resources as factors that influence research productivity of academic staff at Lead City University, Nigeria, on information literacy skills, indicates high level information resources availability to lecturers and other academic staff in Lead City University who are utilizing them in conducting researches. However, Abubakar (2020) a case study of pharmaceutical science students from the University of Jos investigated the availability and accessibility of information resources in university libraries for academic use by students and revealed that books are some of the library's information resources. Journal, web libraries and internet, e-books, computers, e-journals, encyclopedia index, handbooks, newspaper and magazines are other information resources that were strongly suggested by respondents, some of the data resources were shown poor, as revealed by respondents, while more than half of the respondents recognized them. They are: audio-visual conference proceedings and abstracts and indexes for monographs and regular CD-ROM databases. However, Kutu and Olabode (2020) has a different view in his study on the availability of information resources in libraries, as he stated that the most available print information resources were newspapers, textbooks and journal collections while the least available included indexes, technical reports and manuscripts. This view was corroborated by Ilogho and et-al (2020), Swaminathan and et-al (2020) and Babarinde and Festus (2020). In terms of accessibility, scholars have divergent views on accessing information resources. However, according to Jabbar et-al (2020), Study Accessibility and Use of Research Scholars' Institutional Repository: A Case of the COMSATS Institute of Information Technology, Lahore, they stated that users accessed Information Resources out of campus while other respondents accessed Information Resources within campus and some did so through IP and very few used other mode of access. This study is similar to that of Jan and Reman (2020) the University

Students of Pakistan: A Quantitative Study of Khushal Khan Khattak University of Karak-Pakistan on Internet Usability and Accessibility, they found out that majority of the students of the Khushal Khan Khattak University Karak was accessing the Internet at their homes, hostels and the University Library. Interestingly, others were accessing the Internet at classrooms and Computers. However, Olubiyo and Yemi (2020) have different view on their study On Knowledge, Accessibility and Use of Serial Publications among Adeyemi College of Education Undergraduate Students, Ondo Library, they stated that students access serial materials by asking staff, following directional signs, browsing racks and shelves and searching periodical catalogue in that order.

### **Utilization of Databases**

Tyagi (2011) conducted a study on Use and Awareness of Electronic Information Sources at IIT Roorkee India, the report shows that faculty and research scholars make more use of e-resources as compared to undergraduates and postgraduates. 100% of faculty and research scholars make use of INDEST consortium. 85.92% of postgraduate and 20.54% of undergraduate students make use of INDEST consortium respectively. The percentage of under graduate students for non-use of INDEST consortium was high 79.46%. The analysis also shows the percentage of users using various e-resources provided by their library. 100% of the faculty and research scholars make use of e-journals, e-articles, web-databases, e-books, downloading services and online search respectively. In case of postgraduate and undergraduate students 91.55%, 91.96% and 94.37%, 81.25% make use of online search and downloading services respectively. The result shows the percentage of users using various e-resources provided by their library. 100% of the faculty and research scholars make use of e-journals, e-articles and web databases.

Navin and Hirak (2008) reported that Science Direct (50%) is the most used and useful online



journal for Engineering field Researcher's and faculty members. IEL online (28.12%), Springer link (15.62%), Taylor and Francis (12.5%), ASCE and ASME (9.37%), Royal Society of Chemistry (6.25%) and Science (6.25%) are the other journals which are mostly used and useful for respondents. Only two databases Scifinder (9.3%) and Web of Science (3.12%) is mostly used and useful database for engineering researchers. The finding was agreed upon by Aba and et-al (2015) Oriogu and et-al (2015). A comparable view was that of the study carried out by students of the Federal University of Technology, Owerri, on the availability, accessibility and usage of library information services (FUTO). The study reveals that World Wide Web (WWW), e-mail services, e-journal, e-books, e-database and DVD/CD ROMS, textbooks and internet are the resources that students mainly utilize. They often use tools for electronic content, such as databases, electronic journals, and electronic books. cybercafés, reports, handbooks seminar/conference maps/atlas, frequently, while CeRA Journals Indiastat, CABI abstract horticulture online database, Agricultural Economics database EBSCO resource J-Gate Plus Fortnightly, FAO and Agricola Agricat were utilized moderately to prepare for examination, browsing the web, up-dating knowledge, in-depth research work, up-dating and correspondence lecture notes. The majority of respondents decided to use the information tools to acquire general information and for analysis, assignment and study purposes. The discoveries were supported by Owolabi and et-al (2016), Kumar (2017), Akpe and et-al (2018), Aladeniyi and Temitope (2018) and also Salubi and et-al (2018); while Madondo and et-al (2017) and Madu and et-al (2018) In their research on the use of electronic information services by undergraduate students at the Faculty of Management and Administration at the University of Africa, Mutare, Zimbabwe and on the availability and use of ICT for information retrieval by undergraduate students at the Ramat Library, University of Maiduguri, respectively, they have contrary views. They asserted that undergraduate students at Africa University typically use electronic information services inadequately the results revealed the low level of computer usage in the library for the retrieval of information. CD ROM use was very poor and there was a low degree of internet use. Most respondents also did not use e-mail in the Library for information retrieval.

However, the utilization of databases is essential for the justification of the existence and survival of any university library. The major objectives of any library are to ensure that maximum use is made of its resources and services. This is because no matter how rich a library

may be in terms of databases; it is believed that if the users of the library are not able to gain access and use the resources, the subscribed of databases is regarded as a waste. Unfortunately, some literatures have revealed that the use of databases of Nigerian university libraries by users is generally low.

The research conducted by *Adewole S. and Batagarawa S. A. (2011)* on Utilization and knowledge about electronic information resources among academic staff in Umaru Musa Yar'adua University, Katsina. Respondents were asked how they Utilized electronic information resources Findings revealed that 45 (57%) of those that use electronic information resources used University Library computers, 30 (38%) departmental facilities, 16 respondents (20.3%) used their offices. Other responses included use of Internet/business cafes outside the University. Interviews and visits to faculties confirmed some of these findings. Findings further revealed that electronic information resources were not frequently used. 23 respondents (29.1%) used them only once in a week, 17(21.5%) use them more than once a day, 13 (16.5%) once in a day and 27(34.2%) use the same less than once a month. Findings revealed that 43 respondents (54.4%) of those that utilized these resources were using the same for teaching purposes and 33 (41.8%) preparation of presentations and conference papers. Others mentioned book selection, easy communication through the Internet and acquisition of information on courses and programmes. The researcher observed that no literature determine the level of utilization of databases in FUAM university library Therefore, the present study is determine to find out level of awareness and utilization of the databases in the university library

## **The Constraints Associated with the Use of databases in Agriculture University Library FUAM**

Mohammed (2015) the factors fighting against the use of information tools by users of Agriculture University Libraries in Nigeria for study was examined. The results indicate that the librarians concluded that there was a lack of appropriate trained librarians to provide process and make accessible information resources and services for libraries, infrastructure equipment, power, insufficient support for libraries, a lack of adequate information resources in their research areas, a lack of adequate procurement, processing and accessibility of new information technologies. The other considerations include short content loan times, the inconvenience of the library's operating hours, and the amount of books loaned out at a time is insufficient for their study purposes. These were among others the reasons fighting against their use of information resources due to the lack of qualified library personnel in research; inadequate cataloguing and classification methods pose problems for the use of library facilities by students. Olubanke et-al (2015) in their research on the use of electronic information services by graduates of the Federal University of Agriculture, Abeokuta, Ogun State, Nigeria, he shares this view and likewise Igwebuike and Amaoge (2017) Strategies for the successful use of information tools and facilities by distance learning students at the National Institute of Teachers in Enugu State, Nigeria

### **Population of the Study**

The target population of the study is the undergraduate students of FUAM University. A data obtained through preliminary investigation conducted by the researcher revealed that there are total numbers of 21324 students.

**Table .1 Population of the Study**

S/N	Undergraduate students	Sampled	Questionnaire administered	Questionnaire retrieved
1	21324	100	100	85

Figure 1

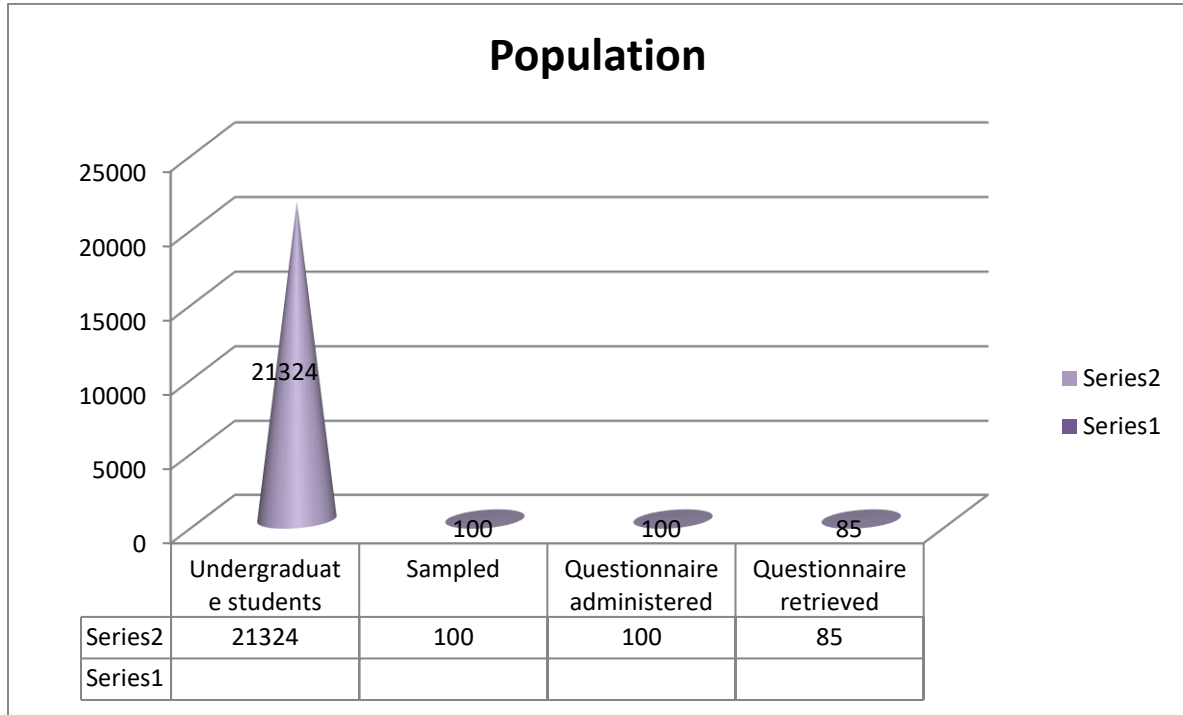


Table 1 and figure 1. above presents the population of the respondents to understand the Awareness, Availability and Utilization of Databases among Undergraduate Students of Federal University of Agriculture (FUAM) Makurdi Benue State, Nigeria; the sample of 100 means around 0.5% is justifiable. However, at last only 85 questionnaires were returned with complete response.

**Table2: Sources through which student became Aware of Databases**

S/N	Sources / Channels	Freq.	%
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a.	Bulletin/ Newsletter	01	01.2
b.	User Education Programme	06	07.1
c.	Meetings and Social Interactions	27	31.8
d.	Public relation	00	0.0
e.	Displayed list of online subscribed databases	25	29.4
f.	Annual brochure/ reports	05	05.9
g.	No response	21	24.7
<b>Totals</b>		<b>85</b>	<b>100</b>

Table 2 above indicated that Meetings and Social Interactions were the major sources for creating awareness about the presence of online subscribed databases to academics with a frequency of 27(31.7%). Another source responsible for academics awareness was by displayed list of online subscribed databases on the library board with 25(29.4%) responses, User education programme 06(7.1) and annual reports 05(5.9). The least source of information was bulletin/ newsletter with only 01(1.2), while public relations have 00(0.0). The implication of this finding is that libraries under study were not doing well in publicizing and bringing to the knowledge of their patrons the available electronic resources and online databases subscribed to by universities. At the institution level, the mode of publicity is the same. The table also revealed that academics themselves were doing greatest publicity for the online resources and services. This finding is in line with that of Kelly and Orr (2003) who discovered that the academics and instructors were one of the best ways to learn about libraries and its services. Moreover, Aliyu (2006) discovered that academics in A.B.U. Zaria heavily depend on academic interaction with colleagues, seminar, conferences and workshops in realizing and identifying source of information. This clearly suggest that a close relationship between libraries and academics is

important to ensure that library users have information they need about online databases subscribed to by university libraries.

**Table 3 Utilization of databases**

S/N	Utilization of databases	Yes		No		Not sure	
		F	%	F	%	F	%
1	AGORA	9	4.5	175	88.4	9	4.5
2	BIOLINE, BIOMED	7	3.5	176	88.9	7	3.5
3	OARE	7	3.5	173	87.4	7	3.5
4	DOAJ,HINDAWI, WORLDCAT	11	5.6	172	86.9	11	5.6
5	HINARI,POB MED, FRMED	11	5.6	175	88.4	11	5.6
6	PLOS	9	4.5	180	90.9	9	4.5
7	REPEE	10	5.1	171	86.4	10	5.1
8	WASH LAW, FINDLAW, HEINONLINE	10	5.1	168	84.8	10	5.1
9	LIBDEX	11	5.6	173	87.4	11	5.6
10	E-GRANARY	6	3	182	91.9	6	3

Table 3 above identify the number of databases utilize by the undergraduate students. The results revealed that majority of the respondents ranging from 168 (84.8) to 182(91.9%) were not using the databases only 07(3.5%) to 11 (5.6) indicated using databases while 06(3.0) to 11 (5.6) were not sure for using the databases. The review of related literature confirms this finding because *Mc Henry G(2002)* and *Tenopir (2003)* indicated that patrons were not using the databases. The effect of this discovery is that users will not explore the available information in the databases for their academic pursuit but tend to over rely on print resources, while databases, though perhaps more relevant for the topics are ignored.

The findings confirmed that the databases were readily available and that there is a relationship between the availability of databases and the use of library services. The use of library services

has an approximately 80 percent dependence on each variable. The findings disagree with similar findings in studies conducted by Dike (2002), who established the lack of availability of information sources in Nigerian university libraries, which led to an unfortunate situation in which faculty and their departments did not use the library. A similar study by Marama and Ogunrombi (2006) confirmed a high rate of unavailability for library and information science collections in most university libraries, which affected the use of library services. The findings confirm Unomah (2007), who revealed an unavailability rate of 34%, with the effect that 71.4% of library users gave up the search and went away in frustration. However, studies by Okiy (2000) and Iyoro (2004) found high availability (92.5% and 94% respectively) in their studies, which encouraged the use of library services.

#### Constraints affecting the utilization of databases

In order to define the restrictions on the usage of information resources sampled in the FUAM, the researcher provided a list of possible constraints facing the Libraries for the respondents to choose from. The study indicated that Poor internet work services Speed and other technical problems 75.00% and Erratic power supply (73.9) are the major constraints that hinder easy access and utilization of databases as well as information about both print and digital new arrivals and lack of library space for conducive reading 55.56% and 52.38%, respectively.

#### **Summary of the study**

1. The findings of this study revealed that the types of online subscribed databases available and known by Undergraduate students of FUAM are EBSCOhost, Nigerian virtual library, Sciencedirect, Jstor, Oare, Hindawi, MathSciNet, Hinary and Biolin.

2. Majority of the Undergraduate students are not aware of the databases in Library
3. Databases were underutilized by the Undergraduate students in Umaru Musa Yar'adua University, Katsina
4. There is a statistically significant mean relationship between awareness and the use of online databases subscribed to by FUAM

## **Conclusion**

The movement towards more open and democratic societies has created a need for learning that goes beyond the academic curriculum and factual knowledge to emphasize problem solving and open-ended enquiry. This will in turn improve the information literacy level of university students. From the analysis and summary of findings, it could be concluded that Undergraduate students in FUAM do not make adequate use of the available databases in the library, however, many of the Undergraduate students lack ICT skills and this may limit their ability to access and utilize the available databases in the library. They have deficiencies in search engines. Indeed there is no substitute for good judgment when it comes to navigation of information in the databases. Because good judgment is a product of both critical thinking and extensive knowledge of the subject matter being researched and it was believed that university education programmes are uniquely positioned to develop information competencies. Low productivity of Undergraduate students could therefore, be attributed to lack of fluency with ICT skills. However, many of the undergraduate students do not employ to a larger extent the opportunities and advantages of utilizing the available databases for their academic pursuit.

The low level of information literacy and use of databases affect academic excellence among undergraduate students. Therefore, the migration from traditional to modern information



handling techniques in the use of databases is considered necessary for optimum utilization of the databases available in the library towards sufficient, efficient and effective use of databases that in no doubt will improved research output and exploring the frontiers of knowledge. To achieve this little success the University Library had to employ a number of strategies and as findings show that most of the undergraduate students are not aware of the available databases neither have the skills to access nor utilize them.

### **Recommendations**

The following recommendations were made on the findings and conclusion reached in this study

1. Information literacy is needed to be given to the undergraduate students' on the use of databases, particularly those that are available at no cost so that undergraduate students become aware and make use of them.
2. The need for training on ICT is highly recommended. The digital age has brought many opportunities and challenges to the undergraduate students
3. The curricula of library and information science schools in Nigerian universities should be reviewed to incorporate the teaching of information literacy skills and ICTs, including providing practical lessons which will be adequate for the undergraduate students to access and utilize databases effectively. The relatively low level of the use of database the researcher has the view that there is need to review or overhaul the curricula of the Nigerian universities in order to equip the graduate students with the required skills to perform and to be able to compete with their colleagues globally
4. Librarians in FUAM should collaborate with university faculties to develop a curriculum for a training programme that could be embedded into the course curriculum of every department

or faculty or taught as a standalone programme for students. This could be in the form of any of the following:

(I). A detailed training programme during the library orientation session for new students

(II) A scheduled training programme in the library for different departments periodically or as a credit carrying course as part of the General Studies Programme

5. The databases should be made more readily available and accessible to undergraduate students in the university library. The students would be up to date and more responsive to the challenges of their academic pursuit in this digital age.

6. The university library should establish effective and sustainable information literacy programme. This will enhance optimum utilization of the databases in various formats.

7. Since Information Literacy is not just a library issue, it is important that all educational stakeholders, including administrators, librarians, media and Information Technology specialists, career development professionals to make collaborative effort to enhance IL practice in Nigerian universities.

8. Power generating sets which were used as back-up to ensure constant supply of electric power.

9. All faculty libraries should be provided with computers facilities with full internet facilities with full internet connection

10. There is a need for the university to subscribe to internet service provider with a very high bandwidth.

## **References**

- Aba, J., Beetseh, K., Ogban, O. O., & Monica, E. U. (2015). The Use of Internet Services by Postgraduate Students for Research in Francis Idachaba Library, University of Agriculture Makurdi. IOSR Journal of Research & Method in Education (IOSR , 15-23.*
- Abubakar, J. D. (2020). Availability and Accessibility of Information Resources In University Libraries For Students' Academic Use: A Case Study Of Pharmaceutical Science Students Of The University Of Jos. Library Philosophy and Practice , 1-19.*
- Abubakar, M. S. (2017). Availability and Utilization of Electronic Information Databases for Research by Agricultural Scientists in Federal University Libraries in North Central Nigeria . Library Philosophy and Practice (e-journal) , 1-33.*
- Adewole S. and Batagarawa S. A. (2011) The use of E-Library in umaru Musa Yar'adua Univesity Library.*
- Afianmagbon, B. Afolabi, T., & Taofeek, A. O. (2020). Information Literacy Skills, Availability of Information Resources as Factors Influencing Research Productivity of Academic Staff of Lead City University, Nigeria. Library Philosophy and Practice , 1-17.*
- Ajiji Yakubu, M. (2017). The Importance of Information Technology on E-Libraries in Nigerian Universities. International Journal of Advanced Research in Computer Science and Software Engineering , 1-10.*
- Akpe, P. D., Gabriel, I. A., & Gbashinma, C. N. (2018). The Availability and Utilization of Information Resources by Students of Akawe Torkula College of Advanced and Professional Studies (ATCAPS),. IOSR Journal of Research & Method in Education (IOSR-JRME) , 6-12.*
- Aladeniyi, F. R., & Temitope, S. O. (2018). Utilization of Library Information Resources by Undergraduate Students of University Of Medical Science Ondo, State, Nigeria. American International Journal of Contemporary Research , 92-99.*
- Aliyu (2006)"Undergraduate Library Skills: Surveys at Johns Hopkins University," Research Strategies 11: 188-201*
- Babarinde., B. A., & Festus, O. (2020). Provision of Information resources and Services to Visually Impaired Students at Oyo State School for the Blind Ogbomoso, Nigeria. Library Philosophy and Practice , 1-20.*
- Das, D., & Parnab, C. (2015). Library Automation: an overview. International Journal of*

*Research in Library Science* , 1-7.

Dike, A. (2002). *Scarcity of tertiary books in Nigeria: A threat to academic excellence and suggestions for action.* *Journal of Librarianship and Information Science*

Ekene, U., Amaoge, D. A., & Nnamdi, E. (2016). *Assessment of Available Resources and Library Services Provided in Two Medical Libraries in South-East Nigeria.* *International Journal of Library Scienc* , 1-6.

Igwebuike, E. U., & Amaoge, D. A. (2017). *Strategies for Effective Utilization of Information resources and Services by Distance Education Students in National Teachers Institute in Enugu State, Nigeria.* *Journal of Applied Information Science and Technology* , 1-7.

Ilogho, J. E., Alao, A., Adekeye, O., & Gesinde, A. (2020). *The Role of Librarians in Health Information Provision for Depression Reduction.* *Library Philosophy and Practice* , 1-19.

Iyoro, A.O. (2004). *Serial availability, accessibility and use: Perceptions of in-training information professionals in a Nigerian university.* *The Nigerian Library Link*11(2): 66-71.

Kelly and Orr (2003) *Accessibility of health information to primary health care workers in some selected local government areas in Nigeria.* *Owena Journal of library and information science* 1(2): 31-38.

Jabbar, A., Saqib, U. R., & Muhammad, A. H. (2020). *Accessibility and Use of Institutional Repository among Research Scholars: A Case of COMSATS Institute of Information Technology, Lahore.* *Library Philosophy and Practice* , 1-18.

Jan, S. U., & Rehman, A. U. (2020). *"Usability And Accessibility of Internet By The University Students of Pakistan: A Quantitative Study of Khushal Khan Khattakuniversity Karak-Pakistan".* *Library Philosophy and Practice (e-journal)* , 1-15.

Kumar, G. K. (2017). *Use of Information Resources and Services available in the library by the Postgraduate Students and Research scholars of University of Agricultural Sciences, Dharwad: a Study.* *International Journal of Digital Library Services* , 1-12.

Kutu, J. O., & Olabode, O. (2020). *Information resources availability, utilisation and job performance of academic Librarians in selected university libraries in North-Central Nigeria.* *Library Philosophy and Practice* , 1-28.

Kwaghgba, I. N., Matthew, T. C., & Rhoda, W. G. (2015). *Assessment of Customer Satisfaction with Products and Services of Academic Libraries in Zaria Metropolis.* *International*

- Journal of Academic Library and Information Science* , 236-246.
- Madondo, T., Nevermore, S., & Colledge, T. C. (2017). *on Use of Electronic Information Resources by Undergraduate Students in the Faculty of Management and Administration at Africa University, Mutare, Zimbabwe. Asian Research Journal of Arts & Social Sciences* , 1-12.
- Madu, A. U., Ibrahim, V., & Saratu, C. M. (2018). *Availability and Utilization of ICT for Information Retrieval By Undergraduate Students In Ramat Library, University of Maiduguri: A Case Study. Journal Of Humanities And Social Science* , 1-8.
- Mohammed, A. (2015). *Access and Utilization of Communication Media Used for Agricultural Information Service Delivery to Farmers in Kano State . Kano.*
- Marama, I.D., & Ogunrombi, S.A. (2006). *Availability of library and information science collections in Nigerian university libraries. Library Bulletin: Nigerian University Library System* 1:2.
- Mc Henry G(2002) “*Faculty-librarian partnerships in Australian higher education: critical dimensions*”. *Reference Services Review*
- Navin, U. and Hiraq, K. C. (2008) *Online journals and databases: A study of use and awareness among Academics, at main Library, I.T. B. H. U. 6<sup>th</sup> International Caliber, 2008. University of Allahabad, february 28-29.*
- Oduwale, A. A. & Sowole, A. O. (2006) *Utilisation and impact of The Essential Electronic Agricultural Database (TEEAL) on library services in a Nigerian university of agriculture, Program: electronic library and information systems, 40(2), 157-167.*
- Oki Y (2000) . “*Education for Europeans: towards the learning society. Brussels*”: *European Round Table of Industrialists. Education Policy Group.*
- Olubanke Mofoluwaso, B., Bosede, A. A., & Aderonke, O. O. (2015). *Use of Electronic Information Resources by Undergraduates of Federal University of Agriculture, Abeokuta, Ogun State, Nigeria. International Journal of Digital Library Services* , 1-14.
- Olubiyo, P. O., & Yemi, V. F. (2020). *Awareness, Accessibility and Use of Serial Publications among Undergraduate Students of Adeyemi College of Education, Ondo. Library*

- Philosophy and Practice* , 1-19.
- Onye, U. U. (2016). *Availability, Accessibility and Utilization of Library Information Resources by Students of the Federal University of Technology, Owerri (FUTO)* . *Information and Knowledge Management* , 1-8.
- Oriogu, C. D., Ogbuiyi, S. U., & Ogbuiyi, D. C. (2014). *Availability and accessibility of ICT in the provision of information resources to undergraduate students in Babcock University library. Research on Humanities and Social Sciences* , 29-41.
- Owolabi, S., Oluwafemi, A. I., Foluke, O., & Atinuke, O. O. (2016). *on Utilization of Electronic Information Resources by Undergraduate Students of University of Ibadan: A Case Study of Social Sciences and Education. Journal of Education and Practice* , 1-7.
- Rukwaro, M. W. (2015). *Conducted a study on Factors Affecting the Utilization of Products and Services in University Libraries . Category: Library Science and Administration* , 1-3.
- Swaminathan, S. S, S. K., & (2020). *Availability of Electronic Theses and Dissertations (ETDs) of State Universities of Tamil. Library Philosophy and Practice* , 1-10.
- Sandra, J. W. and Janet A. A. (2005) *Using a Survey to Achieve Faculty Awareness of the Library's Electronic Resources. College & Research Libraries.*
- Tenopir, C. and Danielle, G. (2005) *Patterns of use and usage, Factors for online Databases in Academic and public Libraries.*
- Tyagi, S. (2011) *Use and Awareness of Electronic Information Sources at IIT Roorkee, India: A Case Study: J LIS.it. Vol. 2, n. 1. DOI: 10.4403/jlis.it-4586*
- Unomah, J.I. (2007). *Unavailability syndrome in academic libraries: A case study of Bendel State University. Library and Information Science Reviews* 5(1&2)38-46.
- Uwaifo, S. O. (2012) *Awareness and Use of Electronic Information Resources by library and information science students in Delta state university, Abraka. Journal of the Nigerian library Association: vol. 45(2). Dec. 2012.*
- Vijayakumar, K. (2017). *A Study on Information Sources and Services in Government Siddha Medical College Library, Thirunelveli. International Journal Advances in Social Science and Humanities* , 1-4.

*Yaseen, M., Shiwei Wen Yu, X. W., & Hassan, S. (2016). Farmers' Access to Agricultural Information Sources: Evidences from Rural Pakistan. Journal of Agricultural Chemistry and Environment , 1-9*