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**AWARENESS AND USE OF DIGITAL EDUCATIONAL DATABASES BY FINAL
YEAR STUDENTS IN SELECTED PRIVATE UNIVERSITIES IN SOUTHWEST
NIGERIA**

OKIKI, Olatokunbo Christopher

**University of Lagos Library, University of Lagos, Akoka, Lagos, Nigeria
cokiki@unilag.edu.ng**

&

IREKO, Benjamin Zion

**Department of Library and Information Science, Tai Solarin University of Education,
Ijagun, Ijebu-Ode, Ogun State, Nigeria.
benjaminzion29@gmail.com**

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AWARENESS AND USE OF DIGITAL EDUCATIONAL DATABASES BY FINAL YEAR STUDENTS IN SELECTED PRIVATE UNIVERSITIES IN SOUTHWEST NIGERIA

Okiki, O., C. & Ireko, B., Z.

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Abstract

This study investigated undergraduates' awareness and use of digital educational databases in selected private universities in Southwest Nigeria. A descriptive survey research design was adopted for this study. A survey descriptive research design was adopted for the study. Descriptive statistics such as frequency, percentage, mean and standard deviation, and Multiple Regression Analysis (MRA) were used for analyses. Findings revealed a high level of awareness and digital educational databases by final year students. The main reasons for using digital educational databases by final year students are completing assignments, academic purposes/course works, consulting reference sources, consulting research materials, and preparing seminar presentations and materials for project writing. There is a significant relationship between the demographic variable, access, and digital databases of final-year students. Based on the findings, it was recommended that the library procure more digital educational databases than print versions. Libraries should intensify their awareness and orientation campaigns toward digital educational databases among the students.

Introduction

Digital educational databases (DED) have become an established component of many academic libraries' collections. These databases often contain journal articles, references to such articles, electronic books, reference sources, conference papers, and reports. There are various types of these databases, such as bibliographic, full-text, directory, numeric, and multimedia (Ahmed, 2013). Digital educational databases provide several benefits over print resources. Electronic resources are often faster to consult than print indexes, especially when searching retrospectively. They are straightforward when wishing to use a combination of keywords. They open up the possibility to search multiple files at once (Aina, 2014).

In the view of Dadzie (2015), digital educational databases are invaluable research tools that complement print-based resources in a traditional library setting. DED is the latest development in information technology and is among the most powerful tools ever invented in human history due to its timeliness and access (Kumar and Kumar, 2018). According to Ani & Ahiauzu (2018), digital educational databases (DED) are widely available and can be accessed from anywhere and by many users simultaneously; it is, therefore, convenient to use. Similarly, Egberongbe (2011) averred those digital educational databases are becoming more and more important for the academic community. Hence, awareness of these databases is of paramount importance to library patrons. Prangya and Rabindra (2013) opined that awareness is core to using online academic databases. Where materials are in closed access, users' ease of access to such online academic databases is reduced. But where they are in open access (not subscription-based), undergraduates find them and make do with them for whatever reasons they need them.

Tsakomas and Papatheodorou (2016) state that awareness of technological changes in recent years has dramatically altered how information is accessed, stored, and disseminated. Prangya and Rabindra (2013) further state that with advances in technology and e-publishing, online full-text databases, such as Emerald, Science Direct, Academic Search Premier, Oare Sciences, Hinari, Virtual Library (NUC), online public access catalogue (OPAC), CD-ROMs (Compact Disc-Read Only Memory), e-books collections, e-journals covering a variety of subjects, and major bibliographic databases access to information on a local, regional, national and international basis has overcome the traditional barriers of time, ease of accessibility and space since online academic databases are systems in which information is stored electronically and made accessible through electronic systems and computer networks.

Akpojotor (2016) also noted that awareness is paramount if undergraduates harness these databases. Awareness of digital educational databases has changed what users read and use. Therefore, they visit the library a lot less, and, as such, discovery through uncertainty is reduced. Users often prefer increased access to databases of online-refereed journals and the web, which provides information that is up to the minute, international in scope, and sometimes not available elsewhere because they see these resources as easier to access and search. Hence, when undergraduates know about online academic databases, they possess various perceptions.

The use of digital educational databases may be influenced by awareness, perception, interest, and exposure that a user has. Swain (2010) pointed out that awareness could be influenced by the interest and exposure that a user has in the database, while perception encourages the users to utilise digital educational databases. Odongo and Okello-Obura (2013), in their study on digital educational databases utilisation by undergraduate students, reveal that students perceive Internet resources to be easier than other online databases. Similarly, Epic (2011) stated that many students first go to a general Internet search engine such as Google and do a keyword search than library subscribed online academic databases. Bamidele (2013) believes that the perception and use of certain resources in the library depend on users' awareness, packaging, format, ease of use, result-oriented, and role of the tutor.

Egberongbe (2011) reported that digital educational databases had yielded positive results in teaching and research. Using online academic databases, undergraduates now have access to global databases, particularly the internet, for their scholarly intercourse. However, Ojo and Akande (2015) reported that undergraduates' access, usage, and awareness of digital educational resources are relatively low due to a lack of information retrieval skills. A subsequent study by Watt and Ibegbulam (2015) stressed that the effective use of digital educational databases largely depends on the ability of the undergraduates to navigate the available digital databases' technological architecture. To further bolster this, Prangya and Rabindra (2013) concluded that lack of training, poor infrastructure, and high cost of accessing some e-resources are the obstacles to proper and full utilisation of digital educational databases.

On the other hand, demographic factors often cited as influencing information resource use are gender, income, level, and age. Adepoju (2017) reported that gender is one factor that influences the use of electronic databases by students in Nigerian universities. He reported that the use of digital databases is higher among male students than their female counterparts. Mufutau, Afolake, and Oluwadamilare (2012) indicated that demographics often yield important clues as to what factors contributed to undergraduates' use of information resources. However, it has been observed that undergraduates are confronted with various challenges relating to inadequate telecommunications infrastructure, high cost of subscription, poor user skills, and the use of online academic databases. In addition, the use of online academic databases may vary demographically. This study centred mainly on the demographic variables, awareness, and use of online academic databases by undergraduates in selected private universities in Southwest Nigeria. However, due to financial constraints, the study would be limited to final year undergraduates, and the selected universities are: Adeleke University, Babcock University, Lead City University, and Caleb University

Objective of the Study

The main objective of this study is to investigate demographic variables, awareness, and use of digital educational databases by undergraduates in selected private universities in Southwest Nigeria. Specific objectives are to:

1. find out the types of digital educational databases available to undergraduates in selected private universities in Southwest Nigeria,
2. determine the level of awareness of digital educational databases by undergraduates in selected private universities in Southwest Nigeria,
3. determine the level of use of digital educational databases by undergraduates in selected private universities in Southwest Nigeria,

Research Questions

1. What is undergraduates' level of awareness of digital educational databases in selected private universities in Southwest Nigeria?
2. What is undergraduates' level of use of digital educational databases in selected private universities in Southwest Nigeria?

Hypotheses

H0₁: There is no significant relationship between the demographic variable and the use of digital educational databases by undergraduate students in Southwest Nigeria.

H0₂: There is no significant correlation between demographic variables, access, and use of digital educational databases by undergraduate students in Southwest Nigeria.

Literature Review

Quadri (2012) conceptualised a digital educational database where the text is read on or printed from the end user's computer rather than printed on paper or online; the data is downloaded directly from the host computer rather than via an intermediate medium CD-ROM. Any serials produced, published, and distributed nationally and internationally via electronic networks such as Binet and Internet. Omosekejimi, Eghworo, and Ogo (2015) further stated that digital educational databases are available electronically via a computer or a computer network. They may or may not be published in other physical mediums, but they are not CD-ROMs.

According to Omosebi and Okhakhu (2017), digital educational databases are not entirely different from their print counterparts in their fundamental editorial process. Thus, articles submitted are peer-reviewed by the editorial board members of the journal to be accepted or rejected before being published. The difference only lies in the distribution mode – digital medium. On the contribution of online academic databases to the information pool, Mostafa (2013) states that digital educational databases have added enormous resources to the collection and improved the services of the library by enhancing perception of journal literature and decreasing the demand for photocopy services as well as document delivery of single articles. She reiterated that training staff and library users and managing the services of the online academic databases was paramount to the improvement of information skills and the development of information.

In the same vein, Chiraa and Madhusudhan (2009) asserted that digital educational databases and services had become the most popular research and academic activities tools. Islam (2011) pointed out that the web influences the development of new modes of scholarly communication while new digital educational databases that have emerged have become powerful communication media for university libraries, providing faster and more reliable information for researchers (Jantti and Cos 2013). Literature on digital educational databases has been reviewed extensively in academic circles. Many such studies looked at the extent of awareness and usage, particularly in teaching, learning, and research. Many studies have been carried out on digital educational databases in the last decade. The major consensus has been that academics should find full-text online academic databases more convenient than the print versions (Natarajan, Suresh, Suvarama, and Sevukan, 2010).

Ekenna and Mabawonku (2013) suggest that undergraduates' use of digital educational databases might be influenced by many factors such as subject disciplines, academic positions, their local information environment of online academic databases, and their awareness of those resources, their age, and their information needs. According to a study undertaken by Rogers (2011) at Ohio State University, there was significant progress in accepting and using

digital educational databases. More than half of faculty and graduate students used digital educational databases frequently. Emwanta and Nwalo (2013) study revealed that digital educational databases had become a vital part of the information dissemination process. The younger generation has accepted the digital reading culture but emphasised that online academic databases require considerable training. They lamented the lack of training among users and lack of proper infrastructure in libraries as major demotivating factors in using digital educational databases. According to Diyaolu, Okunlaya, and Ibrahim (2012), the rapid adoption of online academic databases in academic spheres, though behaviour varies according to discipline. According to them, the behaviour pattern in the acceptance of usage has been an issue for a long time.

Ankrah and Acheampong (2017) expressed that there has been an increase in the use of digital educational databases with time, but age or academic position are inversely related to usage. In a case study by Salaam and Aderibigbe (2010) at the University of Agriculture, Abeokuta, Nigeria, it came to light that many undergraduates were not aware of such electronic facilities (as online academic databases). The study further reported that usage was encouraging to be emphasised that the library regularly intensifies its awareness and orientation campaigns. Padma (2014) conducted a case study of two engineering colleges in Tamil Nadu to find the Awareness and Use of digital educational databases. The findings revealed that most respondents were aware of the digital educational databases. Similarly, Adeniran's (2013) study on digital educational databases by Undergraduates at the Redeemer's University Nigeria revealed that most students were aware of various online academic databases available in the university library.

Adepoju (2017) reported that gender is one factor that influences the use of digital educational databases by undergraduates in Nigerian universities. He reported that online academic databases are higher among male undergraduates than female counterparts. At the same time, Mufutau, Afolake, and Oluwadamilare (2012) indicated that personal demographic variables such as age, marital status, and professional qualification influence using online academic databases. The most active users of online academic databases are the younger users. Scholars found that personal demographic variables such as age, income level, gender, and professional qualification have an influential role in using online academic databases (Abu Qudais, Al-Adhaileh & Al-Omaril, 2010; Mufutau, Afolake, & Oluwadamilare, 2012). Okiki and Asiru (2011) examined the factors influencing electronic information sources among postgraduate students. The results show that males enjoy browsing the internet while females only use it for work-related purposes. Similarly,

Yet, another constraint against the effective use of the internet, according to Dukie (2013), is the issue of a skilful workforce. He opined that people required to use computers in Nigeria are inadequately trained or not trained. The lack of appropriate software for use in computer programs in Nigeria is another constraint limiting the effective utilisation of the internet. According to Anaraki and Babalhavaeji (2013), some of the problems of non-integration of ICT in Nigerian schools include 'technical, non-technical, human, organisational, and financial. Technical obstacles identified include the poor telecommunication infrastructure, absence of national information communication infrastructure, lack of coherent university plan for ICT, problems of connectivity, lack of or limited bandwidth for ICT for learning, teaching, and research, non-reliability of public electricity supply, thus necessitating extra cost for standby generators. In his view, Akpojotor (2016) stated that the perception of and use of online academic databases in Nigeria is hampered by the inadequacy of existing resources, lack of information about them, inadequate security of materials, the uncooperative attitude of parent bodies, lack of appropriate and coherent policies, inflation, and unstable budgetary allocation.

Methodology

The study population comprised undergraduates in selected private universities in the Southwest. The survey descriptive research design was adopted for the study because it can provide a numeric description of the attitudes or opinions of a population by studying a sample of that population. The study used purposive sampling to select four private universities across four states. Final year students were chosen. Adeleke University, Babcock University, Lead City University, and Caleb University were selected. The total population is thousand five hundred and forty-one (1,541). The study adopted a stratified random sampling technique to select 15% of the respondents. Thus, one hundred and eight-two (182) respondents represented the sample size. The table indicates the sample used for the study. See table 1.

Table 1:

Distribution of the Population of the Study (follow APA)

Private universities	Population	Proportional Sample (15%)
Adeleke University	211	32
Babcock University	360	54
Lead City University	286	43
Caleb University	353	53
Total	1,541	182

Source: DAPQAR and University Records Unit**Table 2.**

Internal consistency of the instrument.

	Cronbach's alpha	No of items
Demographic Variables	0.914	14
Awareness	0.618	8
Use of Digital Educational Databases	0.940	10
Overall	0.902 18	

The instrument's internal consistency was determined by pre-testing the instrument among ten (10) undergraduate students at the University of Lagos. The reliability coefficient was computed using Cronbach's alpha (α) analysis to ascertain clarity of questions, internal consistency, and overall reliability of constructs in the study. The overall Cronbach value for the instruments was 0.90, which indicates that the questionnaire has satisfactory internal validity (McKinley, Manku-Scott, Hastings, French, & Baker, 1997). The reliability coefficient for each of the constructs in the study is shown in Table 2.

Copies of the questionnaires were administered to the final year students in the selected institutions. The questionnaire elicited information on demographic data, awareness of DER and use of DER by final year students. The descriptive data were analysed using the Statistical Package for the Social Sciences (SPSS), which shows frequency counts, percentages, and mean scores. At the same time, the hypotheses were tested using Pearson's Product Moment Correlation Coefficient (PPMC) at a 0.05 level of significance.

Table 3:

Questionnaire Response Rate

Universities	No of questionnaire Administered	No of questionnaire Returned
Adeleke University	32	31
Babcock University	54	54
Lead City University	43	42
Caleb University	53	52
Total	182	179

Table 3 shows the rate of return of the questionnaire. The table below shows that 182 questionnaires were administered and 179 were returned, while three were missing. Data gathered from 179 questionnaires were used for the data analysis.

Demographic Variables

Table 4: Demographic Information of Respondents

DEMOGRAPHIC FEATURES	FREQUENCY	Percentage (%)
University		
Adeleke university	31	17.3
Babcock university	54	30.2
Lead city university	42	23.5
Caleb university	52	29.1
Sex		
Male	82	45.8
Female	97	54.2
Age range		
15yrs -20yrs	87	48.6
21yrs - 25yrs	65	36.3
26yrs - 30yrs	25	14.0
Above 30 yrs	2	1.1
Total	179	100%

Results

Research Question 1: What is undergraduates' level of awareness of online academic databases in selected private universities in Southwestern Nigeria?

Table 5:

Level of awareness of digital educational databases by undergraduates

Items	Mean	SD	Remark
Access to Global Online Research in Agriculture (AGORA)	1.84	.365	Significant
BioMed Central	1.98	.128	Significant
Online Access to Research in the Environment (OARE)	1.83	.373	Significant
Directory of Open Access Journal (DOAJ)	1.97	.180	Significant
Health InterNetwork Access to Research Initiative (HINARI)	1.23	.482	Non-significant
PLoS	1.93	.249	Significant
African Journals Online (AJOL)	1.95	.218	Significant
Medline Plus	1.17	.496	Non-significant
E-Granary	1.36	.476	Non-significant
Ebscohost	1.90	.300	Significant
Sage Online Journals	1.93	.249	Significant
JSTOR	1.92	.276	Significant
The Essential Electronic Agricultural Library (TEEAL)	1.78	.412	Significant
Lexis Nexis	1.76	.428	Significant
Repee	1.73	.443	Significant
Medscape	1.82	.387	Significant
Scopus	1.71	.455	Significant
LibDem	1.40	.459	Non-significant
Science Direct	1.87	.340	Significant
Emerald	1.86	.344	Significant
Taylor & Francis Online	1.85	.357	Significant
Alaska	1.35	.478	Non-significant
Chicago Journals	1.24	.481	Non-significant
Average Mean	1.71	.364	Significant

Decision: It has been adjudged that the score of $X=1.50$ and above is significant.

The result in Table 5 showed an average mean of 1.71 is greater than the accepted mean of 1.50, indicating that in all the items measuring the level of awareness of online academic databases by undergraduates, 17 items were significant, while six items were non-significant. The results show a mean score of ($\chi = 1.98$) indicated BioMed Central, ($\chi =$

1.97) indicated Directory of Open Access Journal (DOAJ), ($\chi = 1.95$) indicated African Journals Online (AJOL), ($\chi = 1.93$) indicated PLoS, ($\chi = 1.93$) indicated Sage Online Journals, ($\chi = 1.92$) indicated JSTOR, ($\chi = 1.90$) indicated Ebscohost, ($\chi = 1.87$) indicated Science Direct, ($\chi = 1.86$) indicated Emerald, ($\chi = 1.85$) indicated Taylor & Francis Online, ($\chi = 1.84$) indicated Access to Global Online Research in Agriculture (AGORA). Moreover, ($\chi = 1.40$) indicated LibDex, ($\chi = 1.36$) indicated E-Granary, ($\chi = 1.35$) indicated Aluka, ($\chi = 1.24$) indicated Chicago Journals, ($\chi = 1.23$) indicated Health InterNetwork Access to Research Initiative (HINARI) and ($\chi = 1.17$) indicated Medline Plus. Hence, the result shows that there is a high level of awareness of online academic databases by undergraduates, and the result is favourable to BioMed Central, Directory of Open Access Journals (DOAJ), African Journals Online (AJOL), PLoS, Sage Online Journals, JSTOR, Ebscohost, Science Direct, and Emerald.

4.1.3 Research Question 2: What is the level of use of online academic databases by undergraduates in selected private universities in Southwest Nigeria?

Table 6:

Level of use of digital educational databases by undergraduates

Items	Mean	SD	Remark
Access to Global Online Research in Agriculture (AGORA)	2.32	.564	Significant
BioMed Central	2.34	.569	Significant
Online Access to Research in the Environment (OARE)	2.08	.522	Significant
Directory of Open Access Journal (DOAJ)	2.35	.544	Significant
Health InterNetwork Access to Research Initiative (HINARI)	2.07	.486	Significant
PLoS	2.45	.499	Significant
African Journals Online (AJOL)	2.48	.501	Significant
Medline Plus	1.93	.621	Non-significant
E-Granary	2.15	.540	Significant
Ebscohost	2.11	.513	Significant
Sage Online Journals	2.38	.487	Significant
JSTOR	2.37	.548	Significant
The Essential Electronic Agricultural Library (TEEAL)	2.29	.556	Significant
LexisNexis	1.98	.645	Non-significant
Repee	1.97	.551	Non-significant
Medscape	2.23	.528	Significant
Scopus	2.21	.549	Significant
LibDex	1.99	.570	Non-significant
Science Direct	2.42	.494	Significant
Emerald	2.25	.504	Significant
Taylor & Francis Online	2.24	.565	Significant
Aluka	1.96	.538	Non-significant
Chicago Journals	2.18	.563	Significant
Average Mean	2.21	.542	Significant

Decision: It has been adjudged that means a score of $X=2.00$ and above is significant.

The result in Table 6 showed an average mean of 2.21 is greater than the accepted mean of 2.00, indicating that all the items measuring the level of use of online academic databases by undergraduates; the total of 18 items were significant while 5 items were non-significant. The results show a mean score of ($\chi = 2.48$) indicated African Journals Online (AJOL), ($\chi = 2.45$) indicated PLoS, ($\chi = 2.42$) indicated Science Direct, ($\chi = 2.38$) indicated Sage Online Journals, ($\chi = 2.37$) indicated JSTOR, ($\chi = 2.35$) indicated Directory of Open Access Journal (DOAJ), ($\chi = 2.34$) indicated BioMed Central, ($\chi = 2.32$) indicated Access to Global Online Research in Agriculture (AGORA), ($\chi = 2.29$) indicated The Essential Electronic Agricultural Library (TEEAL), ($\chi = 2.25$) indicated Emerald, ($\chi = 2.24$) indicated Taylor & Francis Online. Moreover, ($\chi = 2.07$) indicated Health InterNetwork Access to Research Initiative (HINARI), ($\chi = 1.99$) indicated LibDex, ($\chi = 1.98$) indicated Lexis Nexis, ($\chi = 1.97$) indicated Rupee, ($\chi = 1.96$) indicated Aluka, ($\chi = 1.93$) indicated Medline Plus. Hence, the result shows a high level of undergraduates' digital educational databases. The result is favourable to African Journals Online (AJOL), PLoS, Science Direct, Sage Online Journals, JSTOR, Directory of Open Access Journal (DOAJ), BioMed Central, and Access to Global Online Research in Agriculture (AGORA).

Hypotheses Testing

Hypothesis One: There is no significant difference between the demographic variable and the use of online academic databases by undergraduate students in Southwest Nigeria.

The table shows that independent variables (demographic variables) will significantly influence online databases by undergraduate students by 52.1%; $P = .000$. However, the result shows a significant difference between the demographic variable and digital educational databases by undergraduate students in Southwest Nigeria ($P < 0.05$).

Table 7: ANOVA of Hypothesis One

Analysis of variance (ANOVA)					
Model	Sum of square (SS)	Df	Mean square	F	Sig.
Regression	16.667	1	16.667	52.070	.000 ^b
Residual	190.773	177	.320		
Total	207.440	178			

There is no significant correlation between demographic variables, access, and use of digital educational databases by undergraduate students in Southwest Nigeria.

The table shows that independent variables (demographic variables and access to online academic databases) will significantly influence undergraduate students' use of digital education by 65.6%, $P = .001$. However, the result shows a significant correlation between demographic variables, access and use of digital educational databases by undergraduate students in Southwest Nigeria.

Table 8: ANOVA of Hypothesis Two

Model Summary				
Model	R	R-Square	Adjusted R Square	Std. Error of the Estimate
Access and use of digital educational databases	0.203	0.041	.040	0.578

ANOVA					
Model	Sum of square (SS)	DF	Mean square	F	Sig.
Regression	8.540	1	8.540	65.590	.001 ^b
Residual	198.900	177	.334		
Total	207.440	178			

Discussion of Findings

The study showed that there is a high level of awareness of digital educational databases by undergraduates, and the result is favourable to BioMed Central, Directory of Open Access Journals (DOAJ), African Journals Online (AJOL), PLoS, Sage Online Journals, JSTOR, Ebscohost, Science Direct, and Emerald. This finding is consistent with Kwadzo's (2015) study, which conducted a study on awareness of online academic databases by Geography and Resource Development Information Studies Graduate Students at the University of Ghana. It was revealed that 96.9% of students were aware of online academic databases. Most students were aware of JSTOR, Ebscohost, Directory of Open Access Journals (DOAJ), and African Journals Online (AJOL) and used these databases for their studies and research. Most respondents were satisfied with the available online academic databases. The students felt that required information could easily be perceived using online academic databases.

The study showed undergraduates' high level of use of digital educational resources. The result is favourable to African Journals Online (AJOL), PLoS, Science Direct, Sage Online Journals, JSTOR, Directory of Open Access Journals

(DOAJ), BioMed Central and Access to Global Online Research in Agriculture (AGORA). Adeleke and Emeahara (2016) examined the relationship between information literacy and electronic information resources to bolster this finding. Their findings revealed that most of the respondents indicated that the internet and e-mail were available for use in the university. A larger percentage of the respondents use electronic information resources such as electronic journals, OPAC (Online Public Access Catalogue), and the DATAD thesis and dissertation database).

The study showed a significant difference between the demographic variable and online databases by undergraduate students. This is in line with Adepoju's (2017) study, which reported that gender influences digital educational databases by undergraduates in Nigerian universities. He reported that online academic databases are higher among male undergraduates than female counterparts. The study showed a significant correlation between demographic variables access and digital educational databases by undergraduate students. This is also in tandem with the study of Eiriemiokhale (2019), who investigated the influence of demographic variables on utilising databases. Findings of the study were that: (i) African Journal Online, Directory of Open Access Journal, International Research Journal, Google Scholar, Emerald, among other databases, were available to lecturers in public universities in South-west Nigeria; (ii) demographic variables: job status and age range influence the access and use of databases.

Conclusion

Based on the findings of this study, it was concluded that there is a high level of awareness and use of online academic databases among undergraduates, which is favourable to BioMed Central, Directory of Open Access Journal (DOAJ), African Journals Online (AJOL), PLoS, Sage Online Journals, JSTOR, Ebscohost, Science Direct, and Emerald. However, using these databases is to complete assignments, academic purposes/course works, consult reference sources, consult research materials, and prepare seminar presentations and sources materials for project writing.

Recommendations

It is recommended that academic libraries intensify their awareness and orientation campaigns towards using digital educational databases among the students. Also, institutions should subscribe more to relevant digital educational databases for students and provide adequate internet connectivity.

References

- Adeniran, P. (2013). Usage of Electronic Resources by Undergraduates at the Redeemer's University, Nigeria. *International Journal of Library and Information Science*, 5(10), 319-324.
- Adepoju, O. E. (2017). Demographic factors affecting ICT utilisation by undergraduate students in some selected universities in Nigeria. *International Journal of Library and Information Science Studies*, 3(2), 20-33.
- Ahmed, S.M.Z. (2013). A survey of students' use of and satisfaction with university subscribed online-resources in two specialised universities in a developing country. *Library Hi Tech News*, 30(3): 6-8.
- Aina, R.F. (2014) Awareness, accessibility and use of electronic databases among academic staff of Babcock University. *Business School and Management Review*.3 (6). Retrieved from:http://arabianjbm.com/pdfs/KD_VOL_3_6/4.pdf
- Akpojotor, L.O (2016), "Awareness and usage of electronic information resources among Postgraduate students of library and information science in southern Nigeria" *Library Philosophy and Practice* (<http://digitalcommons.unl.edu/libphilprac/1408>
- Anaraki, L. N., & Babalhavaeji, F. (2013). Investigating the awareness and ability of medical students in using electronic resources of the integrated digital library portal of Iran: a comparative study. *The Electronic Library*, 31(1): 70 - 83.
- Ani, Z. and Ahiauzu, M. (2018). Utilisation of information and communication technology (ICT) for information service delivery in university libraries in Adamawa State. *Information Technologist*, 5 (2), 24-30.
- Ankrah, E and Acheampong, E. K. (2017). students' use of electronic resources in University of Professional Studies, Accra, Ghana. *Journal of Information Science, Systems and Technology*, 1. 2:11 – 26.
- Bamidele, R. (2013). Digital library services: a practical approach for collection development, organisation and management. *Journal of Library Information & Communication Technology*. 1(1), 1-20

- Dadzie, B. (2015). Use of internet and e-resources by the students of business management: A survey of P. G. students of business administration, Sambalpur University. *India International Journal of Library and Information Science*, 2(3), 45-53.
- Diyaolu A. M, Okunlaya , R. O. A, Ibrahim, R.O. (2012). Influence of Demographic Factors on the Use of Digital Library by the Post Graduate Students in Private Universities: A Case Study of Babcock and Covenant University in Ogun State. *Information and Knowledge Management* 2. 5: 20
- Dukic, D. (2013). Online databases as research support and the role of librarians in their promotion: the case of Croatia. *Library Collections, Acquisitions, & Technical Services*, 37(1-2):56 -65.
- Ebijuwa, A. S. (2018). Gender differentiation and perceived ease of usage of electronic resources by university students in selected private universities in Nigeria. *SRELS Journal of Information Management*, 55(3): 117-127.
- Ebijuwa, A.S. and Mabawonku, I. (2019). Demographic Variables and Academic Discipline as Determinants of Undergraduates' Use of Electronic Library Resources in Federal Universities in South-west, Nigeria. *Library Philosophy and Practice (e-journal)*, 2164.
- Egberongbe, H.S. (2011). The use and impact of electronic resources at the University of Lagos. *Library Philosophy and Practice*. Retrieved from: <http://www.webpages.uidaho.edu/~mbolin/egberongbe.htm>
- Eiriemiokhale, K.A. (2019). Influence of demographic variables on the utilisation of online academic databases by university lecturers in south-west, Nigeria. *Library Philosophy and Practice (e-journal)*, 2683.
- Ekenna, M. M. and Mabawonku, I. (2013). Information retrieval skills and use of library electronic resources by university undergraduates in Nigeria. *Information and Knowledge Management* 3. 9.
- Emwanta, M. G. and Nwalo, K.I.N. (2013). Influence of computer literacy and subject background on use of electronic resources by undergraduates in universities in Southwestern Nigeria. *International Journal of Library and Information Science* 5. 2: 29-42.
- Epic, V. (2011). Use and user perception of electronic information resources: A case study of Siva Institute of Frontier Technology, India. *Chinese Librarianship: International Electronic Journal*, 36.
- Islam, M. A. (2011). Effect of demographic factors on e-learning effectiveness in a higher learning Institution in Malaysia. *International Education Studies*, 4(1), 4-7.
- Jantti, M. and Cox. B. (2013). Measuring the value of library resources and student academic performance through relational datasets. *Evidence Based Library and Information Practice* 8. 2: 163-171.
- Kumar, G. and Kumar, T. (2018). Use of electronic information sources by the academic community: A comparative study, 6th International CALIBER-2008, University of Allahabad, Allahabad. 684-692.
- Kwadzo, G. (2015). Awareness and Usage of Electronic Databases by Geography and Resource Development Information Studies Graduate students in the University of Ghana. <http://ugspace.ug.edu.gh/handle/123456789/6935>
- Mostafa, S. K. (2013). Use and Impact of E-Resources at Some Selected Private Universities in Bangladesh. *Research Journal of Library Science* 1. 1:10-13.
- Mufutau, D. A., Okunlaya, R. O. A, & Oluwadamilare, I. R. (2012). Influence of demographic factors on the use of digital library by the post graduate students in private universities: A case study of Babcock and Covenant University in Ogun State. *Information and Knowledge Management*, 2(5), 10–18.
- Natarajan, K., Suresh, B., Sivaraman, P., & Sevukan, R. (2010). Use and User Perception of Electronic Resources in Annamalai University: a Case Study. *Annals of Library and Information Science*, 59, 59-64
- Odongo, M.A. and Okello-Obura, F. (2013). Use of CD-ROM database by staff and students in the University of Jos Library: The information scientist. *An International Journal of Information and Communication Technology (ICT)* 5(1), 7-8
- Ojo, C. and Akande, T. (2015). The use of ICT in Nigerian universities: A case study of Obafemi Awolowo University, Ile-Ife. *Library Philosophy and Practice*. Retrieved from: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1512&context=libphilprac&seiredir=1&referer=http%3A%2F%2Fwww.google.com.ng>
- Okiki, O. C & Asiru, S. M. (2011). Use of electronic information sources by postgraduate students in Nigeria: Influencing factors. *Library Philosophy and Practice*.
- Prangya, D. & Rabindra, K. (2013). Access, awareness and use of electronic information resources by research scholars of Berhampur University: A study. *American International Journal of Research in Humanities, Arts and Social Sciences*, 3(2)
- Salaam, S.B. and Aderibigbe, S.A. (2010). information seeking behaviour of health sciences faculty at the college of health sciences, University of Ghana. *Information Development*, 23(63), 122-130

- Swain, V. (2010). Application of usage statistics for assessing the use of e-journals in University of Hyderabad: A case study. *The Electronic Library*, 29 (6), 751-761.
- Watt, A. and Ibegbulam, S. (2015). Demographic and motivation variables associated with internet usage activities, *Internet research: Electronic Networking Applications and Policy*, 11 (2), 125-137.