



USE OF ELECTRONIC DATABASES BY LECTURERS IN GOVERNMENT-OWNED UNIVERSITY LIBRARIES IN ANAMBRA STATE, NIGERIA.

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ABSTRACT

This study investigated the use of electronic databases by Lecturers in Government-owned University libraries in Anambra State Nigeria. Two research questions and two null hypotheses guided the study. Using a descriptive survey design, a sample of 749 respondents (570 for NAU and 179 for COOU) out of the 2,495 lecturers (1,900 in NAU, while that of COOU is 595) in the 2 government-owned universities in Anambra State was selected through Proportionate sampling technique. A 19-itemed adopted questionnaire which was validated by three experts, and having a reliability coefficient of 0.86 for parts 2, and 0.79 for part 1, was used for data collection. Descriptive statistics of mean and standard deviation were used to answer the research questions. The null hypotheses were tested at 0.5 level of significance; with the aid of z-test. The findings of the study indicated that stated databases including; EBSCO Host, AJOL, JSTOR, HINARI, AGORA, OARE, DOAJ, DATAD, EBRARY and Web of Science, are frequently used mainly for research purpose and to support teaching activities. Based on the findings, it was recommended amongst others, that greater publicity should be provided for academics and that improvement in the internet connectivity should be facilitated.

Keywords: Electronic Databases, Lecturers, University Libraries, Anambra, Nigeria.

Introduction

The main purpose of university library is to support the objectives of the university, which is to promote teaching, learning and research. The university library is meant to serve the undergraduates, post-graduates, lecturers and other members of the university community. Libraries are agents of educational, social and economic development (Rachael, 2014). Since a university is meant to teach and carry out research, the quality of a university is measured largely by the quality of its library because of its unique role in the university system. For the academic staff and research fellows, the university library is supposed to provide information resources and services of sufficient quality and diversity.

Recent studies such as those of Popoola (2017) and Okiki (2018) have shown that research productivity plays a major role in attaining success in the academia as it relates to promotion, tenure and salary of the academic staff. It has also been reported that the quality of research output by academics in any university system depends largely on quality and quantity of information resources at their disposal (Popoola, 2017). Lecturers require quality information



resources or materials in order to teach effectively, undertake innovative research and use their acquired knowledge and experience to provide expert services to the university in order to turn out professionals and qualified students who will be leaders of tomorrow. Therefore, libraries are expected to provide such resources which when used effectively by lectures, would translate into improved teaching effectiveness and quality products.

Technological developments have transformed traditional library services and introduced numerous types of electronic resources which are attractive for the academic libraries. This technological revolution witnessed in the last few decades has broadened the walls of libraries' operation and services. As a result of this, some resources of the libraries have been changed from physical to electronic (Bell, 2009). Among others, these tremendous developments which came about as a result of advances in information and communication technology brought the introduction of electronic databases.

A Database is a structured collection of records or data that is stored in a computer system. Electronic Databases(E-databases) are collections of electronic information resources by publishers from various fields and disciplines which can be accessed online or off-line (Kwadzo, 2015). Ahiauzu (2013) defined electronic databases as a collection of electronic journals, books and other study materials available through the computer and the internet. Database is a large and regularly updated file of digitized information (bibliographic records, abstracts, full-text documents, directory entries, images, statistics, etc.) related to a specific subject or field, consisting of records of uniform format organized for ease and speeds of search and retrieval and managed with the aid of database management system (DBMS) software. Some can be accessed free of charge to libraries in developing countries by their publishers or vendors, while others are subscribed to by universities or organizations before users can have access to these resources online.

Databases come in various format. There are databases that can be accessed on-line; (it is only available to those who have access to the internet, while some are stored in CD-ROMs (compact disk read only memory), these are storage media that information can be stored. Databases stored in CD-ROMs can be accessed without being connected to the internet, although they have limitations. They are not as current as the online databases. It is easier to update online databases than those stored in CD-ROMs. The online databases do not need to go through publishing before it can be accessed. Whereas the CD-ROMs though electronic publications, but still need to go through a form of publication and distribution same as printed material. These e-databases are categorized into Textual, Numerical, Open source, Commercial, Bibliographic, Non Bibliographic, Online and Offline etc (Henderson, 2010).

Electronic databases are valuable tools for study, learning and research. It can provide many advantages over traditional print-based resources: they contain current information because they are updated frequently, they offer advanced search capabilities, they offer flexibility in the storage of the results, and they enable access to information without the restrictions of time and location (Henderson, 2010). Databases have become an established component of many academic libraries' collection. According to Anaehobi and Emmasiegbu (2021) some of the databases used in selected academic institutions include: EBSCO Host, AJOL, JSTOR, HINARI, AGORA, OARE, DOAJ, DATAD, EBRARY and Web of Science.



Previous researches showed that there are various purposes for which lecturers and postgraduate students utilize electronic information resources in universities. Kaminer (2015) opined that the use of the Internet will enable scientists to be more productive. He attributed this to the fact that, with the Internet and other electronic networks, research is done much faster and in more efficient manner, and this will definitely lead to increase in productivity.

In the study conducted by Ndinoshiho (2010) it was revealed that the purpose of using databases were mainly for educational purposes, class assignments, and administrative purposes. Romero-Otero, Iglesias-Fernández and Giménez-Toledo (2013) also conducted a study on the use, acceptance and expectations for the e-book in a research library. The finding shows that majority of the academic researchers' use the e-resources for research work, writing of articles and for lecture preparation. Shukkla and Mishra (2011) studied the use of electronic information resources by research scholars in Institute of Technology, Banaras Hindu University, India. Among the aims of the study was to find out the purposes of usage of EIR databases among the scholars. The study showed the scholars accepted that they use it for research, for publishing articles, for searching for relevant information and that they use it for updating their knowledge.

Kwafoa, Osman, and Afful-Arthur (2014) carried out a study on assessment of the use of electronic resources among administrators and faculty in the University of Cape Coast which showed that Emerald, Ebsco host, Hinari, Sage Journals and Jstor are databases that were highly frequently used. A study carried out by Tajafari (2014) on accessibility, use and frequency of use of electronic journals at Iranian University Libraries. Among the result of the study revealed that Elsevier Science, Spring-Verlag and Wiley-Blackwell are among the major databases accepted as been frequently used by respondents used for the study.

Aina's (2014) study on Awareness, accessibility, use and frequency of use of electronic database among academic staff of Babcock University business school revealed that only 40 (47.1%) and above of respondents had very high frequency of use to academic journal, Ebsco host and JSTOR databases. AJOR, Electronic Resources for Research Methods and International Research Journals were averagely use to the respondents 30 (35.3%), 36 (42.4%) 38 (44.7%) respectively. It was also revealed that the following databases were rarely used by respondents with Bookboon 19 (22.4%), Dissertation and Theses 19 (22.4%), DOAJ 55 (64.7%), HINARI 20 (20.5%), SAGE 22 (27.1%), World Bank Open Knowledge Repository 31 (36.5%) and National Virtual Library databases 25 (29.4%). This implies that despite the fact that these resources were subscribed to and respondents were aware of them still they are not all fully used due to one challenge or the other.

Bashoren, Isah and Adisa (2017) showed that the use of e-resources by academic staff in Unilorin, was not at the expected level that would effectively enhance the learning and resource process as stated in the mission statement of the university, low usage was reported for e-books, bibliographic databases and e-journals in their study.

Researchers have pointed to many factors posing challenges to effective use of electronic databases by Nigerian lecturers. However, these positions do not reflect the perception of the researcher who had observed that in university libraries in Anambra State, purpose of use, and frequency of use of electronic databases are not known. In order to fill this gap, the researcher therefore, deem it fit to investigate the use of electronic databases by lecturers in government-



owned university libraries in Anambra State Nigeria. This has become necessary because no study seem to have been carried out in this area to the best of the researchers' knowledge.

Significance of the study

In view of the important role databases play in the lives of academic staff and in institutional development, a study of the use of electronic databases by Lecturers of Government-owned University libraries in Anambra State Nigeria will be significant to library management in many ways. In the first place, the use of electronic databases in library is a component of the planning process that provides librarians with feedback that could be utilized to improve the total effectiveness of the academic libraries in response to the needs of their target users. This will likely encourage greater collaboration between library management and lecturers in the universities on strategies for more effective development, access to and use of database resources for research and other purposes.

It is also hoped that the findings of the study shall propel management of higher institutions particularly in Anambra State and Nigeria in general, to formulate concrete and systematic policies as well as take practical steps that will enhance the training of lecturers to effectively access and use the electronic database to enhance their academic work for the benefit of their students and the society as a whole.

Purpose of the Study

The main purpose of this study is to determine the use of electronic databases by Lecturers in Government-owned University libraries in Anambra State Nigeria. The specific objectives of the study are as follows:

1. To find out the purpose of use of electronic databases by lecturers in government-owned university libraries in Anambra State.
2. To find out the frequency of use of electronic databases by lecturers in government-owned university libraries in Anambra State.

Research Questions

This study is guided by the following questions.

1. What is the purpose of the use of electronic databases by lecturers in government-owned university libraries in Anambra State?
2. What is the frequency of use of electronic databases by lecturers in government-owned university libraries in Anambra State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. Lecturers in federal and their counterparts in state university do not differ significantly in their mean ratings, on their purpose of use of electronic databases in government-owned university libraries in Anambra State.
2. There is no significant difference between the mean ratings of lecturers, in federal and their counterparts in state university, on their frequency of use of electronic databases in government-owned university libraries in Anambra State.

Research Method

The design of this study is a descriptive survey research. Descriptive survey according to Nworgu (2015) are studies which aim at collecting data on and describing in a systematic



manner, the characteristics, features or facts about a given population. The research design is appropriate because only a proportion of the population will be studied while the findings are expected to be generalised to the entire population of academic staff in government-owned universities in Anambra State. The state is comprised of 21 local governments. There are two government-owned universities domiciled in the state; Chukwuemeka Odumegwu Ojukwu University (COOU) (State University) and Nnamdi Azikiwe University (NAU) (Federal University). The population of the study comprised of all the 2,495 lecturers in the two government-owned universities in the State. There are 1,900 academic staff in NAU, while that of COOU is 595 in 2018/2019 academic session as at July, 2019 (Retrieved from Registrars' Offices of both Universities). The sample of the study consists of 749 respondents selected from the total population of academic staff in the two government-owned universities in Anambra State. A proportionate sampling technique was used to obtain a sample of 570 for NAU and 179 for COOU. Proportionate sampling technique based on 30% as recommended by Aina cited in Omeje (2010), for a few thousand populations was adopted for the study. The instrument for data collection for this study is a researcher-developed questionnaire titled "Use of Electronic Databases by lecturers Questionnaire (UEDLQ)", as adapted from Adetomiwa and Oshiotse (2018). The instrument was validated by three experts. The instrument was administered to 30 lecturers in University of Nigeria Nsukka that subscribe to these databases which is outside the study area but have similar features to the area of study. Data collected were analyzed using Cronbach alpha method so as to determine the internal consistency of the items. Reliability coefficient values of 0.79 for part 1, and 0.86 for part 2, were obtained. The research questionnaire was administered by the researcher and two research assistants. Data was analysed using the descriptive statistics of arithmetic mean and standard deviation. The null hypotheses were tested at 0.5 level of significance; with the aid of z-test.

Presentation of Results

The presentation of result was done sequentially, starting from answering of the research questions to testing of the null hypotheses.

Research Question One: What is the purpose of the use of electronic databases by lecturers in government-owned university libraries in Anambra State?

Table 1: *Mean ratings of Lecturers on their purpose of use of electronic databases in government-owned university libraries in Anambra State.*

S/N	Purpose of use of electronic databases	X	SD	Decision
11	I make use of electronic databases to support my teaching activities	3.016	0.991	Agree
12	I use electronic databases for research purposes	2.901	0.888	Agree
13	I use electronic databases to search for new information	2.950	0.973	Agree
14	I make use of electronic database to support my knowledge	2.852	0.872	Agree
15	I use electronic databases when i need to access full text articles	2.967	0.965	Agree
16	I make use of electronic databases for lecture preparation	2.623	0.778	Agree
17	I use electronic databases because it is updated more often than printed database	2.721	0.968	Agree
18	I use electronic databases because it offers a user-friendly interface	2.542	0.828	Agree
19	I use electronic databases to read abstracts and bibliographic citations	1.785	0.930	Disagree
20	I use electronic databases for administrative purpose	2.245	1.010	Disagree
	Grand Mean	2.998	0.890	Agree



Result of Table 1 shows that 8 items among the 10 identified items were rated as Agree. These items include; items 11,12,13,14,15,16,17&18. Although, 2 items were rated Disagree, showing that they are not part of the purposes for which lecturers use electronic databases. Meanwhile, a grand mean score of 2.998 was recorded, which indicates that lecturers in government-owned university libraries in Anambra State agreed to the items as the purposes for which they use electronic databases.

Research Question Two: What is the frequency of use of electronic databases by lecturers in government-owned university libraries in Anambra State?

Table 2: Mean ratings of Lecturers on their frequency of use of electronic databases in government-owned university libraries in Anambra State.

S/N	Frequency of use of electronic databases	X	SD	Decision
21	EBSCO Host	2.934	0.928	Frequent
22	AJOL	2.885	0.858	Frequent
23	GOALI	1.868	0.957	Moderate
24	JSTOR	2.754	0.809	Frequent
25	HINARI	2.623	1.051	Frequent
26	AGORA	3.098	0.850	Frequent
27	ELSEVIER	2.278	0.985	Moderate
28	OARE	2.639	0.876	Frequent
29	ARDI	2.114	1.034	Moderate
30	Others; DOAJ, DATAD, EBRARY & Web of Science	3.098	0.850	Frequent
Grand Mean		2.936	0.930	Frequent

Table 2 shows that 7 items out of the 10 identified items were rated as Frequent. Although, 3 items were rated as Moderate, which are items 23, 27 & 29 (GOALI, ELSEVIER & ARDI). Meanwhile, a grand mean of 2.936 was obtained which shows that lecturers in government-owned university libraries in Anambra State frequently use electronic databases. The electronic databases frequently used by lecturers are; EBSCO Host, AJOL, JSTOR, HINARI, AGORA, OARE, DOAJ, DATAD, EBRARY and Web of Science.

Hypothesis One: Lecturers in federal and their counterparts in state university do not differ significantly in their mean ratings, on their purpose of use of electronic databases in government-owned university libraries in Anambra State.

Table 3: *t-test Comparison of the mean ratings of Federal and State University Lecturers*

Variable	University Ownership	N	Mean	SD	z-cal.	z-crit.	df	Sig	Decision
Purpose of use of electronic databases	Federal	558	2.981	.431	1.910	1.96	725	.05	NS
	State	169	2.869	.474					

NS-Not Significant @ t-cal (1.910) < t-crit (1.96)

The result of Table 6 shows that at .05 level of significance and 725 degree of freedom, a calculated z-value of 1.910 and a critical z-value of 1.96 were obtained. Since the calculated z-value is less than the critical z-value, the null hypothesis was thus accepted. This means that lecturers in federal and their counterparts in state university do not differ significantly in their mean ratings, on their purpose of use of electronic databases in government-owned university libraries in Anambra State



Hypothesis Two: There is no significant difference between the mean ratings of lecturers, in federal and their counterparts in state university, on their frequency of use of electronic databases in government-owned university libraries in Anambra State.

Table 7: *t-test Comparison of the mean ratings of Federal and State University Lecturers*

Variable	University Ownership	N	Mean	SD	z-cal.	z-crit.	df	Sig	Decision
Frequency of use of electronic databases	Federal	558	2.764	.613	1.94	1.96	725	.05	NS
	State	169	2.756	.609					

NS-Not Significant @ t-cal (1.94) < t-crit (1.96)

Table 7 shows that at .05 level of significance and 725 degree of freedom, a calculated z-value of 1.94 and a critical z-value of 1.96 were obtained. Since the calculated z-value is less than the critical z-value, the null hypothesis was thus accepted. This implies that there is no significant difference between the mean ratings of lecturers, in federal and their counterparts in state university, on their frequency of use of electronic databases in government-owned university libraries in Anambra State.

Discussion of Results

From the results of the analysis, it is evident that 8 items out of the 10 identified items were rated as Agree, which indicates that those items are the purpose for which lecturers use electronic databases. The purposes include; to support teaching activities, search for new information, research purpose, support knowledge, access full text article, lecture preparation, updated often than printed materials, and offers a user friendly interface. It was also noticed that item 11 (support teaching activities) recorded the highest mean of 3.016, which shows the highest purpose for which lecturers use electronic databases. Meanwhile, item 19 (to read abstract and bibliographic citation) recorded the lowest mean of 1.785, which shows the least purpose for which lecturers use electronic databases. Although, there are 2 items that were rated low by lecturers which are not part of the purpose for their use of electronic databases. These items are; 19 and 20 (to read abstract and bibliographic citation, and for administrative purposes) respectively.

Above all, since 8 items out of the 10 identified items were rated as Agreed, and with a grand mean value of 2.998, it shows that the purposes for which lecturers use electronic databases in government-owned university libraries are as identified. In-line with the above findings, and Mishra (2011) study shows that scholars accepted that they use electronic databases for; research, publishing articles, searching relevant information and updating of knowledge. On the other hand, the study of Ndinoshilio (2010) revealed that the purpose of using databases were mainly for; educational purposes, class assignment, and administrative purposes. This is contrary to the findings of the present study which revealed in item 20 that administrative purpose is not part of the purposes for which lecturers use electronic databases in government-owned university libraries in Anambra State.

Result of the analysis shows that 7 items out of the 10 identified items were rated as Frequent, indicating that lecturers' use of electronic databases are frequent. The electronic databases that were rated as Frequent are; EBSCO Host, AJOL, JSTOR, HINARI, AGORA, OARE and Others (DOAJ, DATAD, EBRARY and Web of Science). It was also observed that they rated



items 26 & 30 the highest (3.098) which shows that AGORA Others (DOAJ, DATAD, EBRARY and Web of Science) are the most frequently used electronic database by lecturers. Meanwhile, item 23 (GOAL) was rated the lowest which shows that it is the least among the frequently used electronic databases. Although, there are 3 items that were rated the lowest by lecturers as the Moderatly used electronic databases. These items are; 23, 27 & 39 (GOALI, ELSEVIER & ARDI respectively).

Above all, since 7 items out of the 10 identified items were rated as Frequent, and with a grand mean of 2.936, it shows that the identified electronic databases are frequently used by lecturers in government-owned university libraries in Anambra State. Contrary to the result of this study, Tajafari (2014) observed in his study that ELSEVIER science, Spring-Verleg and Wiley-Blackwell are among the major databases accepted as been frequently used. Notwithstanding, Aina's (2014) study was in support of the present research which revealed that 47% of the respondents had very high frequency to the use of academic journals, EBSCO Host and JSTOR databases.

Results of the Two (2) null hypotheses.

Based on the results of the two (2) null hypotheses, hypotheses 1 and 2 were not rejected (accepted) having obtained calculated z-value (1.910 and 1.940) both less than the critical z-value (1.961). This indicates that; Ho2- "Lecturers in Federal and their counterparts in State University do not differ significantly, in their mean ratings, on the purpose of use of electronic databases in government-owned university libraries in Anambra State", Ho3- "There is no significant difference between the mean ratings of lecturers, in Federal and their counterparts in State University, on their frequency of use of electronic databases in government-owned university libraries in Anambra State".

Conclusion

The findings of the study have made possible the following conclusions:

1. Lecturers in government-owned university libraries in Anambra State make use of the following electronic databases; EBSCO Host, AJOL, JSTOR, HINARI, AGORA, OARE, DOAJ, DATAD, EBRARY and Web of Science, mainly for research purposes and to support teaching activities.
2. The aforementioned electronic databases are frequently used by the lecturers.

Recommendations

1. There should be mor publicity provided for academics on the several type of databases accessible in the library's homepage and metadata search options.
2. There should be provision of better network to improve users attitude to internet use.
3. Power supply usually posing a challenge; university library management should find other means of generating electricity such as solar energy with automatic change-over to avoid loss of data.



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