UNIJERPS
Unizik Journal of Educational Research and Policy Studies VOL.6;
https://unijerps.org
2021 Impact Factor: 5.641; 2020 Impact Factor: 5.355. January-June, 2021
Indexing and Impact Factor URL: http://sjifactor.com/passport.php?id=21363

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EXTENT OF AWARENESS AND USAGE OF ELECTRONIC DATABASES BY UNDERGRADUATES IN MICHAEL OKPARA UNIVERSITY OF AGRICULTURE, UMUDIKE, NIGERIA

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ABSTRACT
This study investigated extent of awareness and usage of available electronic databases by undergraduates of Michael Okpara University of Agriculture, Umudike (MOUAU), Nigeria. Descriptive research method and stratified sampling technique were used. A total of 312 structured questionnaires out of 374 administered to undergraduates were returned and analysed using simple percentage and mean. Results show that undergraduates of MOUAU are aware of the availability of the electronic databases. The students however have not been making adequate use of the databases. The authors of this study recommend that academic librarians should do more awareness campaign to increase level of usage. MOUAU Library Management should see to stable internet connection in the library and also ensure regular power supply to the library.

Keywords: Electronic database, online database, Information use, Information need, information communication, Undergraduates, academic libraries, Awareness

Introduction

Libraries, as reservoirs of knowledge and repositories of information resources are charged with the primary responsibility of serving the diverse needs of its clientele through the provision of adequate information resources. The rapid emergence and advancement in Information and Communication technology (ICT) has brought about revolutionary changes in services and information provision in libraries (Toteng, Hoskins & Bell, 2013). New dimensions in the information generation, acquisition, organization and dissemination in the virtual environment have been introduced. Resources have been produced and repackaged in various ways to meet the needs of information users. One of such ways of repackaging information to satisfy information need is the use of Electronic databases.

Electronic databases have become an established component of many academic libraries' collection. Reitz (2004) holds that a database is a large regularly updated file of digitized information (bibliographic records, abstracts, full-text documents, directory entries, images, statistics, etc.) related to a specific subject field, consisting of records and uniformly organized for ease and speed of search and retrieval and managed with the aid of Database Management System. Content created by the database producer who usually publishes a print version and leases the content to one or more database vendors e.g. EBSCO that provide electronic access to the data after it has been converted to machine readable form, usually on CD-ROM or online via the internet, using proprietary search software. (Naqvi, 2012).

E-databases are widely available and can be accessed from anywhere and by many users at the same time. The content of e-databases are revised and/or augmented, usually on regular basis, to provide current information or to add recently published resources and also designed to provide information about a very specific topic, as opposed to a range of topics, usually for a limited audience. E-databases are very valuable, time-saving and useful for research and development activities.

E-databases offer so many advantages in terms of accessibility, even in remote areas. They provide updated information resources and help

in solving storage problems; they have high searching speed and provide archiving advantage of searching old documents as well as a future growth advantage of redesigning or editing. It is very appropriate and economical that these databases are optimally utilized to contribute to academic achievement of students and faculty and also to get value for money (Kwadzo, 2015).

Michael Okpara University of Agriculture, Umudike formerly Federal University of Agriculture library came into existence with the inception of the University in 1994. The e-databases available in MOUAU digital library, consists of TEEAL (The Essential Electronic Agricultural Library), the research for life databases which are: AGORA (Access to Global Online Research in Agriculture), HINARI (Health Inter Network Access to Research Initiatives), and OARE (Online Access to Research in Agriculture), EBSCO host and NUC virtual library. The databases cover most subject areas in the agriculture, applied sciences, sciences, and engineering. These contain full text electronic journal articles, bibliographic information, abstracts, e-books, among others.

Statement of the Problem

The satisfaction of information needs of library patrons require the provision and efficient use of all library resources. Although e-databases are available in Michael Okpara University of Agriculture Library, lack of awareness by undergraduates and consequently their poor utilization won't be good developments for meeting the purpose for which the e-databases are provided. Many scholars have made investigation into the awareness and utilization of e-databases as potential information resources in several libraries but none has been made in MOUAU to the best knowledge of the authors. It is therefore necessary to investigate the extent of awareness and utilization of e-databases in this institution from which we would provide recommendations on how to increase the usage of these e-databases as well as improve users' satisfaction.

Purpose of the Study

The rationale behind this research work is to determine the extent of awareness and usage of e-databases by undergraduates in Michael Okpara University of Agriculture, Umudike (MOUAU). However, the underlying objectives of this study are to:

1. determine the extent of awareness of e-databases among undergraduates of MOUAU;
2. discover the channels through which undergraduates become aware of the existence of e-databases in the library;
3. ascertain the extent of usage of e-databases by undergraduates of MOUAU; and
4. suggest strategies for improving the use of e-databases in the library.

Literature Review

Concept of Electronic Databases

An Electronic database is an underlying concept in the field of electronic information resources. It is an integral part of the digital library resources. An e-database is a structure, usually computer that contains stored information about many different categories of information e-resources, (people, places or subjects / topics) and about the relationship between the categories (Amadi, Nnadozie&Ossai-Onah, 2011). It is a system that converts a large collection of data into an abstract tool allowing users to search for and extract pertinent items of information in a manner that is convenient to the users.

Brookshear (2005) refers e-databases to a collection of data that is multi-dimensional in the sense that internal links between its entries make the information accessible from a variety of perspectives. Reitz (2004; p4) defines an e-database as, "a large regularly updated file of digitized information (bibliographic records, abstracts, full-text documents, directories, images, statistics, etc.) related to a specific field consisting of records and uniformly organized for ease and speed of search and retrieval and managed with the aid of Database Management System."

The dictionary of ICT (2004) defines an electronic database as an, "integrated collection of files of data stored in a structured form in a large memory, which can be accessed by one or more users at different terminals. They provide electronic access to information after it has been converted to machine readable form, usually on CD-ROM or online via the internet using proprietary search software (Naqvi, 2012). They can be easily accessible in remote areas, solve the myriad of storage problems and control the flood of information (Munira and Bushira,2010).

Online databases specifically refers to database websites containing libraries and stores of printed information resources in soft copies, accessed only via the internet and the world wide web (www) and full-text article presently available in the web (Obaseki. Oye & Mamman, 2012). Afolabi (2007) defined online databases as a collection of electronic information resources (e-journals/ e-books) by publishers from various fields and discipline. Some of these databases are provided free of charge to libraries in developing countries by their publishers or vendors. Nnakire (2012) also viewed online databases as, "an electronic database of either full-text document or citations and abstracts, which can be searched by telephone or internet connection. Offline databases, on the other hand, refers to series of information resources stored in storage devices and mediums such as CD-ROMs, flash drives, library intra-network system (Obaseki et al, 2012).

Dadzie (2005) suggested that e-databases are very advantageous to users in that it provides access to information that might be restricted to the user due to geographical location or finances. It also provides extensive links to additional resources of related contents. He also suggested that e-databases are faster than consulting print indexes especially when searching retrospectively and they create ability to search multiple files at the same time, ability to save, print and repeat searches more frequently, updating and ability to access from outside the library

Awareness of Electronic Databases by Undergraduates

Awareness is the state or quality of being conscious or having knowledge of something. It has been found in the various literatures that there exist, at times, a gap between awareness and usage of electronic resources, particularly e-databases. Either users are aware and use databases, users are aware and do not use them or users are unaware and therefore doing not use them (Kinengyere, 2007).

Kumar and Kumar (2008), in their study of the use of e-resources by academic community, reviewed that students and faculty members are aware and use e-databases in support of their study and teaching. Studies by Atakan, Atilgan, Bayran & Arslantekin (2008) and Nisha& Ali (2013) reviewed that library clientele were all aware of and used the e-databases available to them.

In Chira & Madhusudhan's(2009) survey study on the use of e-journals by doctoral research scholars of Goa University, India, reviewed that many students were fully aware of e-databases and accessed them. Salaam &Aderibigbe's (2010) in their research utilization of TEEAL database by academic staff in University of Agriculture, Abeokuta, reviewed that an average percentage of their respondents were aware of the existence of databases in the library. Naqvi (2012) reviewed that almost all research scholars and students were well aware about the available databases and used them for their different purposes.

Nikam&Pramodini (2007) in their study of the extent of awareness of e-journals and databases in UGC info-net facility, a consortium formed by all the Indian universities and affiliated colleges, reported that a lot of students were aware of this facility. Dadzie (2005) and Suleiman &Katsekpor (2007) said that majority of health science students in the University of Ghana were aware of e-databases in the library. Swain also reported that many students were conversant with EBSCO and Emerald. Baro, Endouware&Ubogu (2011) reported that the Medline and HINARI databases were popular among medical students. In addition to this, Kwafoa, Osman &Afful-Arthur (2014) reported that almost all faculty and administrators in the University of Cape Coast were aware and this enhanced students awareness of the e-databases but nobody knew that the university library actually subscribes to them. Finally, Kwadzo (2015) in her study of awareness and usage of e-databases by graduate students in Ghana, reported that majority are aware and the popular ones were JSTOR, EBSCO HOST, AGORA, Emerald, Science direct. This study concurs with previous studies by Chira&Madsudhan (2009), Nisha& Ali (2013) and Kwafoa et al (2014), whose study recorded a high extent of awareness of databases in the library in India and Ghana.

The extent of students' awareness of e-databases is low in some academic communities especially in Nigeria. Manda's (2005), Ercegovac's (2009) and Okello-Obura's (2010) studies revealed that students were not aware of most of the e-databases provided those in their respective institutions and all attributed the cause to lack of publicity. Ojinamma in her research on the awareness, motivation

and utilization of agricultural information resources in FUTA library found that TEEAL and AGORA were not popular among the resources. The study went further to state that lack of awareness was a limiting factor to access and use. Also Obasuyi (2012) showed that there's lack of awareness and patronage of most agricultural databases among the agricultural researchers in Nigeria Institute of Oil Palm research library. Anaraki&Babalhaveji (2013) reported that medical students in Iran are not aware of the databases and tend to resort to general search engines to meet their information needs.

The channels of awareness in universities are classified into: Human medium: this consists of friends, colleagues, lecturers, professors, teaching assistants, self-discovery and database professionals. Friends and colleagues who are aware can inform their friends by conversation. Academics (lecturers, teaching assistants and professors) can recommend e-databases to students as supplements and complements of their course works. Kwadzo (2015) and Chira&Madhusudhan (2009) reported that academics were the most effective channels of awareness.

Students' Satisfaction with the Use of Electronic Databases

The goal of every service-oriented organization is users' satisfaction. Satisfaction of users' needs is paramount to continuous and increased patronage.Coombs (2005) reported that full-text databases were preferred to other e-resources. Salaam (2007) reported that CD-ROM databases were preferred and very comfortable. Nikam&Pramodini (2007) reported high satisfaction level among students. Negahban&Talawar (2009) opined that e-databases provide better, faster and easy access to information to students than print resources. Recent studies have shown high satisfaction level also. Naqvi (2012) asserted that users were satisfied with e-databases because they find them suitable for research. Obasuyi (2012) also supported this claim that many users were very satisfied with TEEAL and AGORA and other online databases. Toteng et al (2013) reported that students appreciated that the databases offered full-text, ease of use and ability to email, save and print the retrieved results. Kwadzo (2015) commended e-databases as highly suitable, satisfactory and useful. The study shows that the

databases were available all the time and could be searched simultaneously.

Method

This study employs a descriptive survey method. The population of this study comprises of 21,335 registered regular undergraduate library users of MOUAU. The Sample size consists of 374 respondents, selected through proportionate stratified random sampling technique. This sampling technique was adopted because the sample population was selected from the part of the population that was accessible. The proportion of the sample for each population was determined using sample fraction. Thus the sample fraction resulted in getting 34 students from each of the colleges, which sums up to the sample size. The instrument employed in this study is the questionnaire. The questionnaire had three sections. Section A is on the extent and channels of awareness of e-databases by students. Section B inquires the extent of use of available databases by students. Section C inquires the strategies recommended by students for improving e-databases' use in the library. Out of 374 questionnaires that were distributed in the eleven colleges, 312 were returned usable. This gave a response rate of 83.42%. Data from the questionnaire was analyzed using statistical analyses such frequency, simple percentage and mean.

Data Analysis and Interpretation

Extent of Awareness of e-databases

Undergraduates in MOUAU have high extent of awareness of TEEAL,

AGORA, HINARI and EBSCO HOST with mean ratings 2.81, 3.14, 2.61 and 2.52 respectively (Table 1). OARE and NUC virtual lib has low extent of awareness among MOUAU undergraduates with mean ratings 1.97 and 1.98 respectively. The grand mean was 2.51 showing a high extent of awareness of e-databases by respondents.

Table 1: extent of awareness of e-databases in the library.

S/No	E-databases	Mean	Remarks
1.	TEEAL	2.81	High extent
2.	AGORA	3.14	High extent
3.	HINARI	2.61	High extent
4.	OARE	1.97	Low extent
5.	EBSCO HOST	2.52	High extent
6.	NUC Virtual library	1.98	Low extent
	Grand mean	**2.51**	**High extent**

6.0.2 Channels of Awareness of e-databases in the Library

Table 2 showed that most respondents became aware of e-databases through friends and lecturers with percentage rating of 30.45% and 40.06% respectively. Few indicated library orientation, university website, Library website, librarians and library user education as channels of awareness with percentage rating 11.54%, 14.42%, 9.94%, 2.24% and 4.49%. The most selected channel of awareness is self-discovery with a percentage of 69.87%. No respondent indicated library notice board and OPAC, which have 0% each.

Table 2: Channels of awareness of e-databases in the library

S/No	Channels of awareness	Frequency	Percentage (%)
1	Friends	95	30.45
2	Library Orientation	36	11.54
3	Lecturers	125	40.60
4	University website	45	14.42
5	Library website	31	9.94
6	Librarians	7	2.24
7	Library notice board	0	0
8	Library user education	14	4.49
9	OPAC	0	0
10	Self-discovery	218	69.87

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6.0.3 Extent of Usage of e-databases by Undergraduates in the University

Undergraduates of MOUAU have low level usage of TEEAL and AGORA with mean ratings 1.53 and 1.64 respectively (Table 3). HINARI, OARE, EBSCO HOST and NUC virtual library have very low extent of usage with mean ratings 1.27, 1.16, 1.22 and 1.11 respectively. The grand mean was 1.32 showing a very low extent of usage of e-databases by respondents.

Table 3: Extent of usage of e-databases by undergraduate

S/No	E-databases	Mean	Remarks
1	TEEAL	1.53	Low extent
2	AGORA	1.64	Low extent
3	HINARI	1.27	Very low extent
4	OARE	1.16	Very low extent
5	EBSCO HOST	1.22	Very low extent
6	NUC VIRTUAL LIB	1.11	Very low extent
	Grand mean	**1.32**	**Very Low extent**

7.0Conclusion and Recommendations

The findings of this study show that awareness of undergraduates students of Michael Okpara University of Agriculture, Umudike about electronic academic databases is high. This does not however translate to high rate of usage. Most students lack interest in using the databases available in the library despite the huge funds that go into databases' subscription. The reason for this might be students' lack of knowledge about the benefits of the databases to their academic pursuits. Another reason might also be epileptic internet connectivity. If internet connection through which the studentsaccess the database is not stable or very slow, they might be discouraged from using the databases. A common problem of electronic resources in Nigeria is poor power supply. Lack of electricity in the library when a student wants to use a database discourages subsequent use.

Academic librarians who are leads to these electronic databases need to do more awareness campaign. These can be done by training students on the importance of, and how to use electronic academic databases. The use of e-mail alert system, text messages and prizes for those who use a lot of databases of e-resources should be considered by the university library as methods of promotion. Kumbal et. al. (2009) suggestion that library management must properly plan definite programmes for the introduction of databases to users is very important if students are to maximize the use of electronic academic databases. Such programmes may include library orientation, library week, library tour and use of posters. University management should make more investments in the subscription of bandwidths that will allow speedy internet access; also there is need to phase out old PCs with new ones that have higher speed, memory and storage.There is need for provision of adequate funds, improvement of power supply to universities and provision of information and communication technology infrastructure by the Nigerian.

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