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Maria E. Ilori Mrs

Michael Otedola College of Primary Education Noforija Epe, Lagos State., iloriedeole@yahoo.com

Fehintola N. Onifade Dr.

Federal University of Agriculture, Abeokuta [FUNAAB, fnonifade@yahoo.com

Emmanuel O. Ekundayo Mr.

Queens College, Yaba, Lagos State, ekundayotriplet@gmail.com

SEGUN V. OLUWAFEMI MR

Michael Otedola College of Primary Education Noforija Epe, Lagos State.

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**AWARENESS AND USE OF BIBLIOGRAPHIC DATABASE AMONG
UNDERGRADUATE AND POSTGRADUATE STUDENTS
IN FEDERAL UNIVERSITY OF AGRICULTURE, ABEOKUTA [FUNAAB]**

Ilori, Maria Edeole
College Library ,
Michael Otedola College of Primary Education Noforija Epe, Lagos State.
iloriedeole@yahoo.com

Onifade, Fehintola N. (Dr)
Federal University of Agriculture, Abeokuta [FUNAAB]

Ekundayo, Emmanuel Oluwafemi
Queens College, Yaba, Lagos State
ekundayotriplet@gmail.com

&
Oluwafemi, Victor Segun
College Library
Michael Otedola College of Primary Education Noforija Epe, Lagos State.

Abstract

Awareness is core to usage of bibliographic database by students. In spite of the value derived from use of bibliography database which serves as skills for any academic research work. It is observed that there is low level of awareness and use of these databases that powered electronic learning among undergraduate and postgraduate students. This study examined awareness and use of bibliographic database among undergraduate and postgraduate students in Federal University of Agriculture, Abeokuta [FUNAAB]. The study adopted survey research design with use of structured questionnaire. Convenient sampling technique was used to select nine colleges for the study, 495 respondents were selected, 393 questionnaires were duly completed and found useful, representing 79.4%. Frequency counts, percentages, mean and standard deviation were used to analyse the data. Result revealed that students were aware of the various bibliographic databases available through library orientation, course-mate and librarians. The most used bibliographic databases were online public access cataloguing, EBSCOHOST and SCIEDIRECT. Furthermore, major purpose for using bibliographic database was for assignment, to update users' knowledge. Most frequently used bibliographic were Online Public Access Catalogues (OPAC), AGORA, and TEEAL. Challenges encountered when using the bibliographic databases were poor connectivity and system failure. Students were satisfied with the following databases: TEEAL, AGORA, OPAC and EBSCOHOST. However the study recommends that library management should organised various means of creating awareness such as talk, creating mobile library app, contacting students through social media.

Keywords: awareness; use; bibliographic database; undergraduate; postgraduate students

Introduction

A bibliographic database is a database of bibliographic records, an organized digital collection of references to published literature, including journal, conference proceedings, newspaper articles, reports, government and legal publications, patents, books, among others. A large proportion of the bibliographic records in bibliographic databases describe articles, conference papers, etc., rather than complete monographs, and they generally contain very rich subject descriptions in the form of keywords, subject classification terms, or abstracts. A bibliographic database may be general in scope or cover a specific academic discipline like agricultural science, computer science etc. Many bibliographic databases evolve into digital libraries, providing the full-text of the indexed contents, while some cover non-bibliographic scholarly databases to create more complete disciplinary search engine systems, such as Chemical Abstracts or Entrez (Global Query Cross-Database Search System is a federated search engine)

The term ‘bibliographic databases’ can be referred to as ‘abstracting and indexing services’ for the scholarly literature. These services absorbed on collecting the citation information and abstracts of research articles and making them searchable. Abstracts have been the focus for the creation of bibliographic databases through summarizing the full research article, bringing out the important information that will enable the reader to capture the main content in the information sources without wasting the time of the user. A database is a data structure that stores organized information; some databases contain multiple tables, which include several different fields. Technological advances over the past decade have expanded the horizons of bibliographic databases creation from using abstract only to using longer pieces of text. Furthermore, the rise in use of the Internet has provided the opportunity to build online, searchable literature databases that are accessible to anyone with an Internet connection.

Bibliographic databases have become an established component of many academics’ libraries’ collection. These databases often contain journal articles, or references to such articles, e-books, reference sources, conference papers and reports from various field of study. There are various types of these databases such as full-text, directory, numeric and multimedia all in bibliographic format. Bibliographic databases are widely available and can be accessed from anywhere and by many users at the same time. It is therefore appropriate to use. University libraries, therefore, spend huge amounts of money on these resources to satisfy the teaching, learning and research needs of its students. As universities spend substantial amount of money on subscription of these databases, it is only appropriate and economical that these databases are optimally utilized to contribute to the academic achievement of students and faculty and also to get value for money.

A large, frequently 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 speed of search and retrieval and managed with the aid of database management system (DBMS) software.

Bibliographic have transformed into digital and virtual libraries where books, journals and magazines have changed into e-books, e-journals, and e-magazines. This has increased the global dissemination of information (Abinew and Vuda, 2013). Bibliographic resources can be electronic format such as e-journals, e-books, e-databases, web resources; e-serials amongst others are easily accessible in remote areas. Jone (2008) opined that electronic resources solve storage problems and control the flood of information, that is, print sources is being digitized.

The rapid growth of new technologies has changed the communication process and reduced the cost of communication for individuals. Electronic information resources can be defined as the electronic representation of information which can be accessed via electronic system and computer network (Johnson, Evensen, Gelfand, Lammers, Sipe and Zilper, 2012). They further buttress that electronic information sources can be seen as the most recent development in information technology and that they are available in various forms like e-books, digital libraries, online journal magazine, e-learning tutors and online test. Because of the effective presentation with multimedia tools, these e-resources have become the source of information.

Bibliographic resources deliver the collection of information as full text (aggregated) databases, e-journals, image collections, multimedia in the e-discussions, e-news, data archives, e-mail online chatting, just to mention but a few. Bibliographic database information source are a wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used and sometime modified by a computer. Electronic information sources are becoming more and more important for the academic community. Therefore, awareness of these information resources is of paramount importance to library development in the 21st century. In recent times, academic environment has witness globalization in its terrain with lots of advancement in technology via electronic learning. Therefore, awareness and use of electronic learning is becoming more and more popular in our educational institutions in Nigeria.

The clamor for the use of all sorts of electronic-Databases (e-databases) have become a reality for all and sundries mostly as a component of many academic libraries' collection. These databases often contain journal articles, or references to such articles, e-books, reference sources, conference papers and reports among others. There are various types of these databases such as bibliographic, full-text, directory, numeric and multimedia. In the academic environment, the use of e-databases is widely available and can be accessed from anywhere and by many users at the same time. It is therefore convenient to use. University libraries, therefore, spend large amounts of money on these resources to satisfy the teaching, learning and research needs of its faculty and students. As universities spend substantial amount of money on subscription of these databases, it is only appropriate and economical that these databases are optimally utilized to contribute to the academic achievement of students and faculty and also to get value for money.

The recent trends in the world of academic environment has made bibliographic database good source of primary information which is used as referenced point for every published academic research work like journals, articles, newspaper editorial columns, and so on. The bibliographic database is information of individual authors' books including journals and articles and are duly record and highlight for acknowledge by the people. The database electronic records, it is an organized digital collection of references to published literature, including journal and newspaper articles, conference proceedings, reports, government and legal publications, patents, books, etc. In contrast to library catalogue entries, a large proportion of the bibliographic records in bibliographic databases describe articles, conference papers, rather than complete monographs, and they generally contain very rich subject descriptions in the form of keywords, subject classification terms, or abstracts (Feather, John; Sturges, Paul, 2003.)

Statement of Problem

In spite of the value of derived from the use of bibliography database which serves as skills for any academic research work. It is observed that there is low level of awareness and use of these database that powered electronic learning among undergraduate and postgraduate students is underutilized. Reasons most often advanced for not using the bibliography database include lack of awareness, preference for other sources like general search engines such as Google, lack of search skill, lack of adequate technology infrastructure, bad downloading time, and at times sheer attitude of users. The manifestation of these reasons may differ from place to place or from situation to situation. Today, most students in higher institute of learning find it difficult to explore the world of information sources thus leading to the poor appreciation of the library and its resources, which contributed to their inability to undergo meaningful researches or at best become poor library users. It is believed that a concerted effort to know and understand library more will eventually enable the individual to develop his/her self to the fullest potentials. This study therefore investigates awareness and use of bibliographic database among undergraduate and postgraduate students in Federal University of Agriculture, Abeokuta, Ogun State.

Objectives of the study

Bibliography databases in agricultural libraries are making a vital growth as a part of library collection. An enormous amount is invested in the development of bibliographic databases in the libraries to promote learning. The study is to identify the level of awareness and use of bibliographic databases in Federal University of Agriculture library (Nimbe Adedipe Library) Abeokuta, Ogun state.

Specific objectives

The specific objectives of the study are to:

1. Investigate the level of awareness and use of available bibliographic databases by the postgraduate students in Federal University of Abeokuta;
2. Determine the purpose for which bibliographic databases are used by the postgraduate student's postgraduate students in Federal University of Abeokuta;
3. Identify the frequently used of bibliographic databases by the postgraduate student's postgraduate students in Federal University of Abeokuta;
4. To find out the challenges faced the postgraduate students while accessing and using bibliographic databases by postgraduate students in Federal University of Abeokuta;
5. Ascertain the level of user's satisfaction and recommend appropriate solutions regarding the effective use of available e-databases.

Research Question

1. What are the level of awareness and use of available bibliographic databases by the postgraduate students in Federal University of Abeokuta?
2. What is the purpose for which bibliographic databases are used by the postgraduate student's postgraduate students in Federal University of Abeokuta?
3. Which database is the frequently used of bibliographic databases by the postgraduate student's postgraduate students in Federal University of Abeokuta?
4. what are the challenges faced by postgraduate students while accessing and using bibliographic databases by postgraduate students in Federal University of Abeokuta?
5. Ascertain user's satisfaction on the use of available bibliographic databases?

Literature review

Individual level of awareness often provides the first step in the learning process of students. It exposes learners to new perspectives as well as prepares them in knowledge and skills. It equips students with knowledge of subject matter, and pedagogical content knowledge, or knowledge of how to learn new skills. The students need to acquire, know how to organize and present the content in a way that makes it accessible for the students. It is expected that students must be able to make decisions about choosing learning aids, instructional approaches, and assessment. In addition, students must possess general competencies in the areas of learning basic knowledge in classroom.

Awareness of the changes in technology in recent years has dramatically transformed how information is accessed, stored and disseminated (Tsakomas and Papatheodorou, 2006). While information provision and usage in academic libraries was previously based upon the collection of physical library materials, it is now increasingly the case that academic libraries are moving into the virtual arena. Undergraduate students are responding to such stimuli leading to awareness of these resources that aid them in their academic pursuit. With advances in technology and e-publishing, online test full text databases, Ebscohost, Emerald, TEEEL, Science Direct, Academic Search Premier, Oare Sciences, Hinari, Virtual Library (NUC), online public access catalogue (OPAC), e-journals covering a variety of subjects, e-books collections, and major bibliographic databases like AGORA and MEDLARS etc., access to information on a local, regional, national and international basis has overcome the traditional barriers of time, easy of accessibility and space (Prangya and Rabindra, 2013; Sharma, 2009).

Electronic information resources are systems in which information is stored electronically and made accessible through electronic systems and computer networks. Thus, awareness is paramount if undergraduate students' are to harness these resources. Thanuskodi and Ravi (2011) conducted a survey on use of digital resources by faculty and research scholars of Manonmaniam Sundaranar University, the result revealed that majority of the students 67.14% were aware of electronic information databases. These have improved on how users used the databases with easy accessibility. Patrons now prefer access to databases of online-refereed journals and to the Web—which provides information that is up-to-date in international in scope, (Dalglish and Hall, 2000).

Prangya and Rabindra (2013) suggested that awareness is core to usage of electronic information resources. Where materials are in closed access, users' ease of access to such e-resources is by far reduced. But where they are in open access (not subscription-based), undergraduate students' find them, and make do with them for whatever reasons they need them for. The usage of EIRs in recent years has yielded positive results in the area of teaching and research and that through the use of electronic information resources, researchers, academic and students now have access to global information resources, particularly the Internet for their scholarly intercourse (Egberongbe, 2011; Ellis and Oldman, 2005). Waldman (2003) reported high usage of the library's OPAC by students at City University of New York. Gakibayo (2001) carried out a study on Internet usage by students and staff at Mbarara University of Science and Technology and the result of the study indicated low usage of electronic information resources by students and staff of the university. Bar-Ilan, Peritz and Wolman (2003) opined that age also play an important role in EIRs usage and the younger the student and faculty members are, the more they use EIRs. Research has shown that men are heavier users of the Internet and EIRs (Teo, 2001; Chong, 2002; Agba, Kigongo-Bukenya and Nyumba, 2005). Bar-Ilan, Peritz and Wolman (2003)

conclude that gender and academic rank have only a minor influence on the usage of EIRs and the Internet. Studies on usage of other EIRs such as library OPACs, e-books, and subject gateway projects have revealed difference in use (Adomi, 2005; Obuh, 2009; Prangya & Rabindra, 2013).

Sivathaasan, Achchuthan and Kajanathan (2013) survey on demographic variables and usage of electronic information resources revealed that there are significant mean differences among age group, teaching language and experiences of teachers on the usage of electronic information resources, whereas mean usage of electronic information resources do not differ significantly among five different faculties ($F = 2.075$, $p > 0.05$). Sivathaasan and Velnampy (2013) study on use of EIRs and academic performance of university teachers, it was found that usage of electronic information resources has a strong positive association with academic performance ($r = 0.623$, $p < 0.01$) and it has an impact on academic performance at the rate of 38.8 % ($R^2 = 0.388$). Usage of e-resources has made changes in the trend of information behavior of undergraduate students'. In a related study by Brennan, Hurd, Blečić and Weller (2002) they centered on how the adoption of electronic information resources has affected academics' information behavior and revealed that academics make fewer visits to the library and read more e- journals including e-books than the print era.

Watt and Ibegbulam (2005) stress that the use of electronic information databases largely depends on the user's ability to navigate the maze of e-databases available via technology-based terminals. Zaki (1991) pointed out that the poor background in the use of library by students equally affect them at the undergraduate level since the desire to use the library as it ought to be was not well developed at the undergraduate level. Agaba, Kigongo-Bukenya and Nyumba (2005) opined that e-resources usage at Makerere University by academic staff results of their study clearly indicates low usage of e-resources reasons because of inadequate skills on use of the Internet and computer applications. There is need to equip end-users with skills such as information literacy skills, information retrieval skills, computer skills among others as a strategy to promote e-resource usage (Adekinya and Adeyemo, 2006).

Although, the value and use of e-resources have increased with time since users, especially undergraduate students in higher institutions generally depends on skills of each user to locate discrete knowledge elements. According to the Final Report of the American Library Association Presidential Committee on Information Literacy (2001), the information literate user's skill is being able to recognize when information is needed and have the ability to locate, evaluate, and use information resources effectively. Tyagi (2011) the ability to use e-resources efficiently depends on basic computer skills, knowledge of what is available and how to use it, and ability to define a research problem. How undergraduate students attain the above skills and knowledge depends on many factors, such as their disciplines, academic status and ranks, age, access. To further buttress this, Prangya and Rabindra (2013) conclude that lack of training; poor infrastructure and high cost of accessing some e-resources are the obstacles to proper and full utilization of EIRs. The use of bibliographic database by undergraduate students in Nigerian schools comes with a couple of challenges like the nation's poor infrastructure which has been a subject of debate to researchers and higher institutions (Adomi, 2005). In the face of poor telecommunications infrastructure, poor user skills in navigating e-resources, high cost of Internet subscription and restricted access to e-resources are also major challenges plaguing the use of electronic information resources by undergraduate students' in Nigeria universities.

Awareness is knowledge about particular information and manifested through a particular behavior. Awareness is paramount if students are to effectively and efficiently use electronic database resources. Abinew and Vuda (2013) survey on acceptance and use of electronic library services in universities respondents were asked about their awareness of the available e-library services to indicate their answers by way of saying “Yes”, “No” and “To some extent”. Majority of the respondents (57.97%) responded “To some extent” to indicate that they have only limited awareness about the existence of e-libraries resources and didn’t know well and in detail. 20.65% of respondents do not know anything about the existence of the e-library services at all. Only 21.38% of the respondents were well aware of the existence of the e-library services. They also found in the same study that there is no significant difference in awareness of e-library services that existed between universities, academic staffs and postgraduate students, and among streams (faculties/colleges/institutions).

Obuh (2009) believe that awareness of electronic information resources has been a major concern for academia, postgraduate students’ and researchers in recent days. He further conclude that often it is in college that users become aware of libraries' electronic resources, usually while having to write research papers. Assuming that on average most students face the same number and type of papers and assignments during their college career, it is critical to understand what makes one student use the library's e-database while another will not think of the library as a place to find specialized resources for their papers. Ekenna and Ukpebor (2012) asserted that electronic resources are highly accepted in the Netherlands especially by scientists and social scientists.

Egberongbe (2011) survey on use and impact of electronic resources at the University of Lagos revealed that 80 (71.4%) postgraduate students and 55(78.6%) research scholars were reported in the survey as being aware of e-resources. Awareness of e-resources indicated user knowledge of the availability of the resources, their services and the extent they made use of them. Whereas 32 (28.6%) lecturers and 15 (21.4%) scholars were not aware of electronic information resources, there is no doubt that a larger percentage of the postgraduate students are aware of the availability of electronic information resources. From observation, majority of the postgraduate students visit internet websites to gain access to electronic information resources. Gunter (2005) study on use of electronic books in the UK concluded that 85% of the users surveyed are aware of e-books. Zhang (2011) survey on e-book usage among chemists, biochemists and biologists revealed that seventy-four percent of the respondents stated that they were aware that a large number of e-books from Wiley, Elsevier, Ebrary, Springer are available to the IUB campus, while 26% were not. It is interesting to note, that while the URL for a web page listing the most important e-books for chemistry and life science subjects and lists were sent out every month with new e-book titles, there were still quite a few graduate students, scientists, and faculty members who were not aware of the availability of e-books.

In spite of the humongous potential in the use of electronic information sources, there are some hindrances and challenges to its effective use. The following are some of the findings identified by Ochs (2005); language barrier, inadequate infrastructure (computers, electricity, paper, toner cartridge etc), the high cost of printing of articles and limited access (Library hours). Adomi, (2005) stated that in Nigeria, the use of bibliographic database are faced with challenge like poor

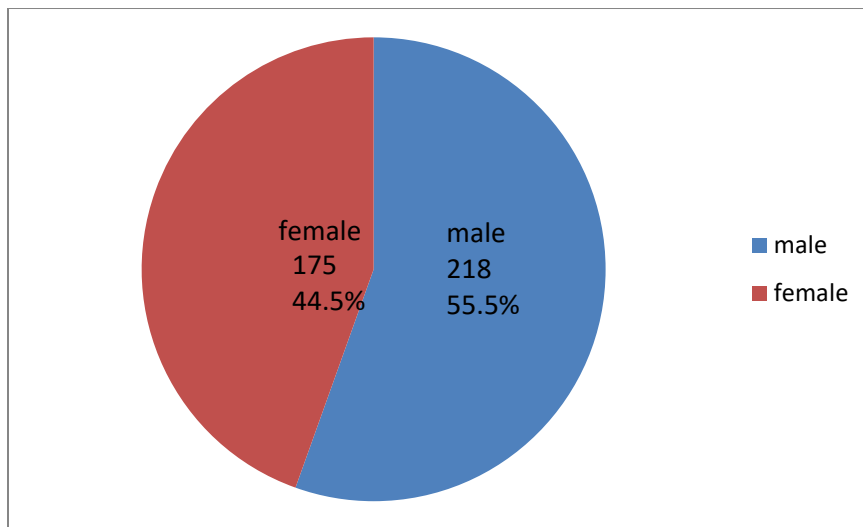
infrastructure, problem of connectivity, poor user skills in navigating e-resources, high cost of database subscription.

Methodology

The researchers adopted descriptive survey design for the study. Convenient sampling technique was used to select nine colleges for undergraduate starting from 200 to 500 level and postgraduate students from these colleges. The study adopted survey research design with use of structured questionnaire. Convenient sampling technique was used to select nine colleges for the study, 495 respondents were selected, 393 questionnaires were duly completed and found useful, representing 79.4%. Frequency counts, percentages, mean and standard deviation were used to analyse the data.

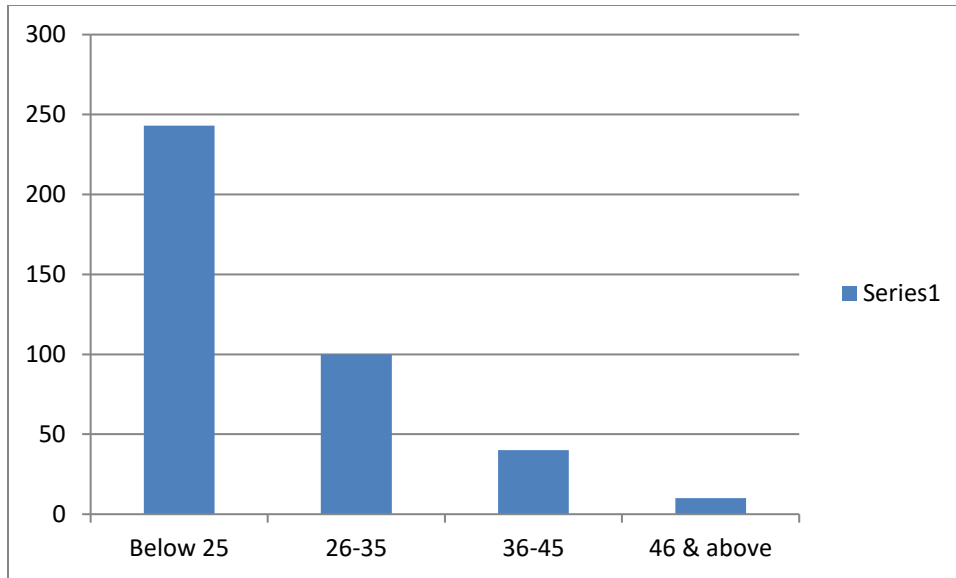
Result analysis

Section A: Demographic Information



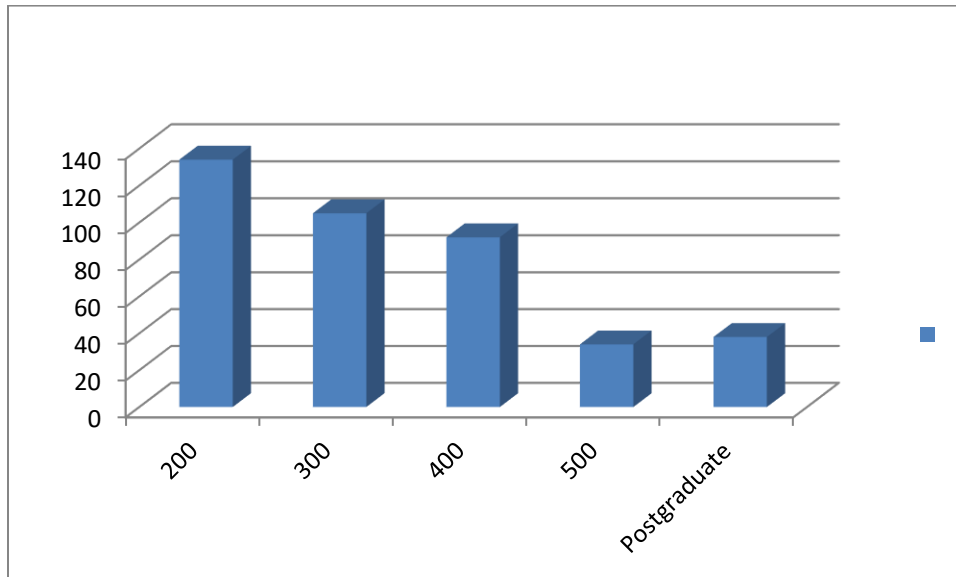
Gender

The findings of this study revealed that majority of the respondents 55.5% were male while 44.5% were female.



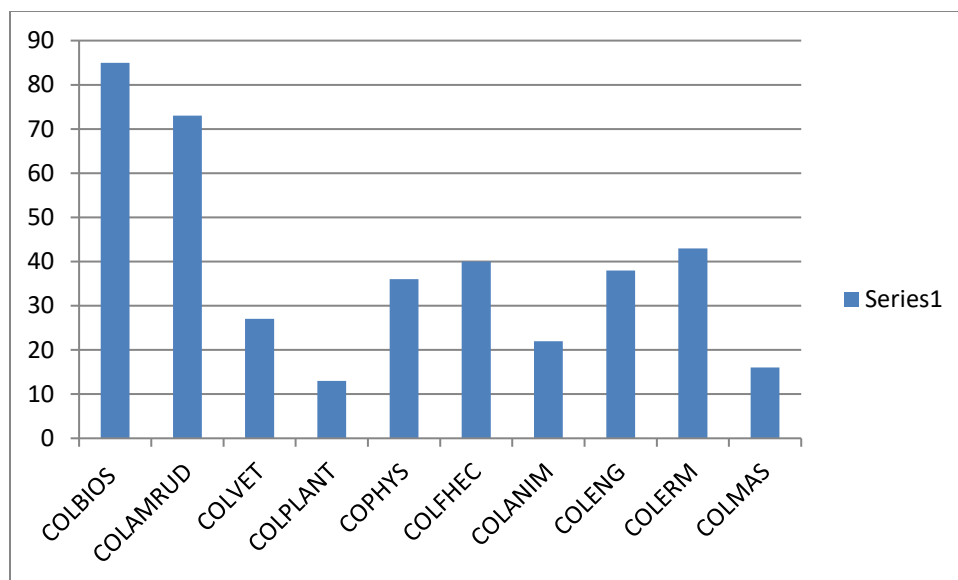
Age Frequency

This finding revealed that majority of the respondents 237 (60.3%) was below 25 years of age, followed by 100 (25.4%) within 26-35 years while 47 (12.0%) and 9 (2.3%) were within the age range of 36-45 and 46 and above



Level

This study revealed that majority of the respondents 134 (34.1%) were in 200 level, followed by 107 (27.2%) respondents were in 300 level and 89 (22.6%) in 400 while 29 (7.4%) and 34 (8.7%) were 500 level and postgraduate respectively.



Colleges

This finding revealed that COLBIOS have the highest respondents 85 (21.6%) followed by COLAMRUD 73 (18.6%) while COLPLANT have the lowest respondents 13 (3.3%).

5. Which of these bibliographic databases are you aware of?

S/N	Awareness	Aware (%)	Not Aware (%)	Mean	STD
1.	Online Public Access Catalogues (OPAC)	359(91.3)	34(8.7)	3.72	.361
2.	SCIENCE DIRECT	358(90.1)	35(8.9)	3.79	.365
3.	HINARI	348(88.5)	45(11.5)	3.58	.391
4.	EBSCOHOST	347(88.3)	46(11.7)	3.55	.394
5.	TEEAL	319(81.2)	74(18.8)	3.32	.406
6.	AGORA	154(39.2)	239(60.8)	1.99	.553
7.	SCOPUS	142(36.1)	251(63.9)	1.54	.541
8.	OARE	38(9.7)	355(90.3)	1.09	.373

The result of the table above revealed that students are aware of various bibliographic databases available in Federal University of Agriculture Abeokuta. However, the finding indicated that

Online Public Access Catalogue (OPAC) 359(91.3%) have the highest awareness, followed by Science Direct 358 (90.1 %) while OARE have the lowest awareness of 38 (9.7%). This finding is supported by Prangya and Rabindra, 2013 who findings revealed that library users are now aware of various bibliographic databases such as online public access catalogue (OPAC), Ebscohost, Emerald, TEEAL, Science Direct among others. the findings of this study is also in consonance with a survey conducted by Thanuskodi and Ravi (2011) on use of digital resources by faculty and research scholars of Manonmaniam Sundaranar University, the result also revealed that students were aware of electronic information databases in the institution.

6. How were you aware of the bibliographic database in the library?

S/N		A	D	Mean	STD
1	Through library orientation	384(97.7)	9(2.3)	3.92	.280
2	Through my classmates	349(88.8)	44(11.2)	3.57	.387
3	Through librarians	348(88.5)	45(11.5)	3.21	.385
4	Through library workshop and training	335(85.2)	58(14.8)	3.15	.413
5	Through library notice board	331(84.2)	62(15.8)	3.09	.430
6	Through library web page	314(79.9)	79(20.1)	2.91	.452

The findings of this study showed that majority of the respondents 384(97.7%) indicated that they were aware of the bibliographic database in the library through library orientation, closely followed by through my classmate 349(88.8%) and through librarian 348(88.5%). However 314 (79.9%) respondents indicated that they were through library web page. This finding in line with Singh and Telles (2012) who carried out a study on awareness about bibliographic databases among students of Ayurveda and qualified Ayurveda practitioners, the study revealed that students were aware of the bibliographic databases through their peer. Also Velmurugan (2013) indicated that library users 95.12% at Siva Institute of Frontier Technology in India were aware of various electronic databases in the instituting through library professionals, website among others means.

7. Which of these bibliographic databases have you used?

S/N	Usage	Used	Not Used	Mean	STD
1.	Online Public Access Catalogues (OPAC)	378(96.2)	15(3.8)	3.02	.300
2.	EBSCOHOST	362(92.1)	31(7.9)	2.91	.351
3.	SCIENCEDIRECT	358(91.1)	35(8.9)	2.79	.362
4	TEEAL	353(89.8)	40(10.2)	2.69	.375
4.	SCOPUS	350(89.1)	43(10.9)	2.53	.381
6	AGORA	349(88.8)	44(11.2)	2.51	.386
7	HINARI	351(84.2)	42(10.6)	2.37	.378
8	OARE	147(37.4)	246(62.6)	1.41	.533

The table above revealed that online public access cataloguing have the highest usage of $\bar{x} = 3.02$, followed by EBSCOHOST $\bar{x} = 2.91$ and SCIENCEDIRECT $\bar{x} = 2.79$. However the findings revealed that OARE have the lowest usage among the databases. This study is in line with the findings of Asemi and Nosrat (2007) who conducted a survey on awareness and use of digital resources among students in Isfahan University of Medical Sciences Iran, the findings revealed that 70% of the respondents used the e-database in the institution. However this findings contradicted the finding of Tyagi (2011) that undergraduate make less used of e-database in a survey carried out on use and awareness of electronic information sources at Indian Institute of Technology Roorkee (IITR) India.

The implication drawn from this finding is that students in Federal University of Agriculture Abeokuta are utilising various databases that are provided by the university library in the cause of their study.

8. What is your purpose for using these bibliographic databases?

S/N	Purpose of use	A	D	Mean	STD
1	For completing my assignments	381(96.9)	12(3.1)	3.04	.289
2	To update my knowledge	379(96.4)	14(3.6)	3.02	.298
3	To support my learning activities	354(90.1)	39(9.9)	2.62	.371
4	To enhance access to current research	351(89.3)	42(10.7)	2.57	.378
5	Use databases for project work	349(88.8)	44(11.2)	2.51	.383
6	To download articles	341(86.8)	52(13.2)	2.43	.401
7	To prepare for examination	335(85.2)	58(14.8)	2.37	.417

This findings revealed that the major purpose for using bibliographic database in FUNAAB was for assignment $\bar{x} = 3.04$, to update users knowledge $\bar{x} = 3.02$ and for learning activities $\bar{x} = 2.62$, however students indicated purpose $\bar{x} = 2.37$ to prepare for examination. This finding supports Akinola, Shorunke, Ajayi, Odefadehan, and Ibikunle,(2018) who carried a survey on awareness and use of electronic databases by postgraduates in the University of Ibadan. The finding indicated that major purpose why postgraduate used the databases was for research work $\bar{x} = 3.31$. Tyagi (2011) findings also revealed that the major purpose postgraduate (57.75%) and undergraduate (38.39%) utilised the e-database is for research work/project.

The implication drawn from the above result can be summarized that the major purpose students utilized the bibliographic databases is to acquire more knowledge that will enable them to carryout various assignment for successful learning activities.

9. Which of these bibliographic databases do you frequently use?

S/N	Usage	Frequently	Not Frequently	Mean	STD
1.	Online Public Access Catalogues (OPAC)	377(95.9)	16(4.1)	3.01	.305
2.	AGORA	358(91.1)	35(8.9)	2.79	.364
3.	TEEAL	353(89.8)	40(10.2)	2.69	.376
4.	EBSCOHOST	352(89.6)	41(10.4)	2.64	.385
5.	HINARI	351(89.3)	42(10.7)	2.57	.380
6.	SCIENCEDIRECT	353(89.2)	40(10.2)	2.55	.385
7.	SCOPUS	344(87.5)	49(12.5)	2.49	.406
8.	OARE	132(33.6)	261(66.4)	1.32	.566

This finding revealed that bibliographic databases frequently used by students in federal university of agriculture were Online Public Access Catalogues (OPAC) $\bar{x} = 3.01$, AGORA $\bar{x} = 2.76$ and TEEAL $\bar{x} = 2.69$, EBSCOHOST $\bar{x} = 2.64$ while OARE have the lowest usage of $\bar{x} = 1.32$ mean. This finding is inconsonance with Akinola et al (2018) that among the most frequently used database by students at University of Ibadan are AGORA (1.58), EBSCOHOST (1.45) and others. Also a survey by Waldman (2003) at City University of New York study reported high usage of the library's OPAC by students.

9. How often do you use these bibliographic databases?

Frequency of use of Bibliographic databases	Daily	Twice weekly	Weekly	Fortnightly	Monthly	Never	Mean	STD
TEEAL	191(48.6)	122(31.0)	28(7.1)	31(7.9)	12(3.1)	9(2.3)	3.75	1.309
SCOPUS	181(46.1)	74(18.8)	29(7.4)	37(9.4)	27(6.8)	45(11.5)	2.66	1.785
AGORA	136(34.6)	130(33.1)	50(12.7)	52(13.2)	17(4.3)	8(2.0)	2.47	1.301
EBSCOHOST	130(33.1)	152(38.7)	42(10.7)	21(5.3)	31(7.9)	17(4.3)	2.35	1.413
Online Public Access Catalogues (OPAC)	117(29.8)	142(36.1)	28(7.1)	32(8.1)	61(15.5)	13(3.3)	2.30	1.528
HINARI	107(27.2)	168(42.8)	37(9.4)	38(9.7)	26(6.6)	17(4.3)	2.22	1.400
SCIENCEDIRECT	85(21.6)	164(41.7)	27(6.9)	36(9.2)	32(8.1)	49(12.5)	2.19	1.702
OARE	66(16.7)	22(5.6)	25(6.4)	23(5.9)	28(7.1)	229(58.3)	1.92	2.434

This result revealed that most often used bibliographic database on daily basis by undergraduates and postgraduates at Federal University of Abeokuta, was TEEAL $\bar{x} = 3.75$, closely followed by SCOPUS $\bar{x} = 2.66$, AGORA $\bar{x} = 2.47$ and EBSCOHOST $\bar{x} = 2.35$. This finding negate Akinola et al (2018) study at University of Ibadan that revealed the most frequently used electronic database by postgraduates was JSTOR 1.85, AJOL 1.63, AGORA 1.58 and HIARI 1.46. Also Kwadzo (2015) study on awareness and usage of electronic databases by Geography and resource development information studies graduate students in the University of Ghana, also revealed that JSTOR database was the most used 63.2%. Naqvi (2012) revealed that AGRIS was the most frequently used database 42.86% by postgraduates at GBPUAT Library, India

10. What are the challenges you encountered in using these bibliographic databases?

S/N	Challenges	A	D	Mean	STD
1	Poor Connectivity	393(94.5)	-	4.89	.235
2	System failure	382(92.2)	11(2.8)	4.78	.285
3	Difficulties in navigating of some databases	381(96.9)	12(3.1)	4.76	.287
4	Inadequate IT facilities/computers	377(95.9)	16(4.1)	4.67	.302
5	Lack of guidance/Professional Assistance	373(94.9)	20(5.1)	4.49	.316
6	Low bandwidth	370(94.1)	23(5.9)	4.36	.324
7	Network failure	368(93.6)	25(6.4)	4.21	.332
8	Information overload	367(93.4)	26(6.6)	4.20	.334
9	Incessant power failure	367(93.4)	26(6.6)	4.20	.334
10	Downloading	367(93.4)	26(6.6)	4.20	.333
11	Low information retrieval skills	363(92.4)	30(7.6)	4.14	.344
12	Computer phobia	360(91.6)	33(8.4)	4.11	.354
13	Failure to find required information	358(91.1)	35(8.9)	4.09	.361

The table above revealed that the major challenge encounter when using the bibliographic databases in federal university of agriculture are poor connectivity $\bar{x} = 4.89$, system failure $\bar{x} = 4.78$, difficulties in navigating of some databasess $\bar{x} = 4.76$ and Inadequate IT facilities/computers $\bar{x} = 4.67$. This findings is in consonance with the finding of Akinola et al (2018) that the major problem associated with use of e-database in University of Ibadan are slow internet connectivity $\bar{x} = 2.98$, frequent power outage $\bar{x} = 2.90$, inadequate infrastructure $\bar{x} = 2.78$ and other problems. Naqvi (2012) in a survey carryout on use of electronic databases by postgraduate students and research scholars at GBPUAT Library, India, the result revealed that among the problems encountered by the students when using the e-databases is poor connectivity 31.11%.

Student Level of satisfaction of bibliographic database

S/N	Level of Satisfaction	Very Satisfied	Satisfied	Not Satisfied	Mean	STD
1.	TEEAL	181(43.4)	210(50.4)	9(2.2)	3.76	.613
2.	AGORA	112(26.9)	269(64.5)	21(5)	3.67	.616
3.	Online Public Access Catalogues (OPAC)	134(32.1)	243(58.3)	27(6.5)	3.43	.640
4.	EBSCOHOST	167(40)	199(47.7)	39(9.4)	3.32	.691
5.	HINARI	154(36.9)	214(51.3)	34(8.2)	3.27	.683
6.	SCIENCEDIRECT	106(25.4)	262(62.8)	35(8.4)	3.12	.646
7.	SCOPUS	159(38.1)	202(48.4)	40(9.6)	3.02	.708
8.	OARE	91(21.8)	66(15.8)	181(43.4)	2.09	1.178

The table above shows the level of satisfaction of the students on the use of bibliographic electronic databases at Federal University of Agriculture Abeokuta, Ogun State. Majority of the respondents indicated satisfaction in the following databases TEEAL \bar{x} =3.76, AGORA \bar{x} = 3.67, Online Public Access Catalogues \bar{x} =3.43, and EBSCOHOST \bar{x} =3.32. This finding supports Naqvi (2012) findings which revealed that 68.89% of postgraduate were satisfied with e-databases in GBPUAT Library, India.

Conclusion

Primarily, this study revealed that undergraduate and postgraduates were aware of various bibliographic databases available at Federal University of Agriculture Abeokuta. Majority of these students were aware of these bibliographic databases in the library through library orientation, course-mate and librarian. Online Public Access cataloguing, EBSCOHOST, and SCIENCEDIRECT were databases that have the highest usage rate in the study. The major purpose for using bibliographic database was for assignment, to update users knowledge and for learning activities The bibliographic databases frequently used by students were Online Public Access Catalogues (OPAC) AGORA, TEEAL and EBSCOHOST. The most often used bibliographic database on daily basis by wee TEEAL, SCOPUS AGORA and EBSCOHOST. The major challenge encounter when students were using the bibliographic databases in federal university of agriculture are poor connectivity, system failure, difficulties in navigating of some databases and Inadequate IT facilities/computers. The undergraduates and postgraduates indicated satisfaction of the following databases TEEAL, AGORA, Online Public Access Catalogues and EBSCOHOST.

Recommendations

Based on the result of the finding of this study, the following recommendations are hereby made:

- The library management should create more awareness of various databases that are available in the university in order for students to make use of these databases in their learning activities.
- The librarian and library management should organise various means of creating awareness such as organising talk, creating mobile library app, contacting students through social media (such as face-book, twitter, e-mail, text messages among others)
- The library management should acquire more databases that are relevant to the programmes available in the institution as this will enable students' access information resources that are relevant to their disciplines.
- Librarians should promote the usage of available databases in the library as this will encourage the students to use the databases to acquire information needs. Library management should organise training programme on databases usage for students as this will give more insight to the purpose of using these databases.
- Librarians and library management should upgrade bandwidth in order to increase the internet connectivity and acquire more system in the library.
- The library management should always carry-out evaluation to determine the satisfaction of the students while using bibliographic databases.

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